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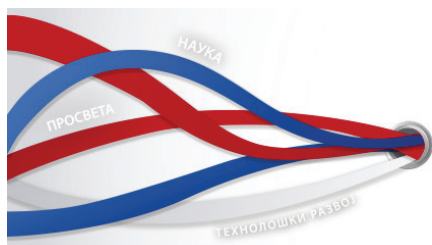


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**EKOB 2018**

***“ECONOMY IN TRANSFORMED SECURITY  
ENVIRONMENT”***

**CONFERENCE PROCEEDINGS**

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Mirko Bilandzic<sup>1</sup>, PhD  
 Danijela Lucic<sup>2</sup>, PhD

## TOURISM, TERRORISM AND BUSINESS INTELLIGENCE – SECURITY OF THE CROATIAN ECONOMY

**Abstract:** In five Mediterranean countries, including Croatia, the total contribution of travel and tourism to GDP in 2016 was above 20%. Apart from being the centre of tourism, the Mediterranean is also one of the centres of terrorism. From 1970 to 2016, 23 Mediterranean countries had a total of 27 218 terrorist attacks. A third of all attacks (8,510) occurred from 2011 to 2016. Therefore, the paper analyses the relationship between tourism and terrorism through the regional study of the Mediterranean and proves that in such structure of GDP, terrorism represents a great security threat to the economy. The importance of business intelligence (BI) as a tool for predicting threats and opportunities is also discussed. The Croatian economy is analysed in particular. The results of national research on implementation of BI activities for 2017 are presented and a comparative overview for 2011 is given, too. It has been shown that a small number of companies systematically carry out BI activities (24%) while ignoring the political and security dimensions from which threats are generated. Though, a positive shift is noticed. While in 2011 53% companies were focused on the security situation, in 2017 this percentage increased to 71%.

**Keywords:** Croatian tourism, terrorism, security, business intelligence;

### 1. Introduction

The economic security is a one of the key indicators of the overall national security. Security experts such as Barry Buzan (1991) and Marianne Stone (2009) are arguing that due to the character of the economy itself, the threat to the economy is difficult to determine precisely. Risks, uncertainty and ruthless competition are not unusual in today's business world. Moreover, uncertainty is an inherent characteristic of today's economies, both national and global. Still, it is not always easy to discern inherent instability and a threat, but for terrorism there is no doubt. It is a threat which simultaneously strikes the economic security of the state as well as economic power of the state. Modern terrorism represents a strategic relationship between the dominant state and non-state terrorist organizations, which is characterized by interrelated instrumental rational actions. In other words, terrorism represents the intersection of politics and violence with the aspiration of appropriating power, which is an important mean of achieving political goals. Whereas political stability is a precondition for economic growth, terrorist activities cause political instability and have negative influence on economic trends. As one of the economic branches tourism surely is an interesting target of terrorist groups. Therefore we are arguing that the countries which economy predominantly relies on tourism income have a higher level of security (economic) risk. Unquestionably, many Mediterranean countries fall into this category and among them Croatia. So, the countries must use different statecraft and business tools and techniques for identifying and dealing with threats. One of them is business intelligence which many developing countries have not yet recognized as an important part of their economic security while developed countries have been aware of the benefits of business intelligence for a long time.

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## 2. Methodology

In analysing two phenomena, tourism and terrorism, through the prism of the economy and security of the national economies, several qualitative and quantitative research methods have been used. First of all, the problem was analysed through the regional study of the Mediterranean, where some key features and recent quantitative indicators have been presented. There have been two main sources from which the indicators are taken – Global Terrorism Database (GTD)<sup>3</sup> and World Travel Tourism Council (WTTC)<sup>4</sup>. Afterwards, Croatian case was shown through the results of quantitative research which was conducted in the first half of 2017. The results of the cross-sectional quantitative research about implementation and using of business intelligence activities within the 1000 largest Croatian companies have been presented. This research based on online survey method on a sample of 74 Croatian companies was the result of cooperation between the Department of Sociology, Faculty of Humanities and Social Sciences of the University of Zagreb and the business weekly *Lider*<sup>5</sup>.

## 3. Tourism and terrorism trends in Mediterranean countries

Conceptually looking, the region of the Mediterranean is not quite clear as there are more different understandings of which countries are included in the region. From a geographic perspective, it is observed as the coastal areas around the Mediterranean Sea. More precisely, it is a territory that spans three continents – Europe, Asia and Africa and twenty one states which have direct access to the Mediterranean Sea – Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Syria, Tunisia and Turkey. Political, cultural and geostrategic reasons as well as international law and some other aspects frequently affect the understanding of the Mediterranean region. That is the reason why Palestine and Macedonia (IEMed, 2017) as well as Gibraltar (United Kingdom), Portugal, San Marino, Serbia and Vatican in some classifications are included in Mediterranean region (NWE, 2017). As the focus is on the economy, especially the tourism sector, for the purpose of this paper, the notion of the Mediterranean implies the definition of the World Travel Tourism Council (WTTC). According to the WTTC categorization, the Mediterranean region includes twenty one countries listed above plus Jordan, Macedonia and Portugal or twenty four countries in total<sup>6</sup>.

Unquestionably, the Mediterranean is one of the world's tourist centres. Direct and indirect contribution of travel and tourism to Mediterranean GDP in 2016 was 898 484 billion US dollars, which is 11.32% of total Mediterranean GDP (WTTC, 2017)<sup>7</sup>. How important role tourism has in the Mediterranean and especially in some countries is visible from the data (Table 1).

<sup>3</sup>The Global Terrorism Database (GTD) began in 2001 when researchers at the University of Maryland obtained a large database originally collected by the Pinkerton Global Intelligence Services (PGIS). GTD is an open-source database including information on terrorist events around the world from 1970 through 2016 (with additional annual updates planned for the future). Read more at <http://www.start.umd.edu/gtd/>. (Accessed on January 29 2018)

<sup>4</sup>World Travel Tourism Council (WTTC) is a respectable professional business forum established in 1991 in London. It is the global body that brings together key players in the travel and tourism sector. WTTC produces reports and forecasts of the economic and employment impact of travel and tourism sector for in 185 countries and 25 geographic or economic regions in the world. Read more at <https://www.wttc.org/research/economic-research/economic-impact-analysis/>. (Accessed on January 29 2018)

<sup>5</sup>Some key research findings are presented in this paper and the whole research with all key findings are in the process of publication in an economic journal.

<sup>6</sup>The results for Monaco are not available in WTTC reports.

<sup>7</sup>In its research WTTC relies on the methodological framework proposed and adopted by the United Nations Department of Economic and Social Affairs (UN DESA) in 2008. The framework was created in co-operation with several institutions: the Statistical Office of the European Union (EUROSTAT), the World Tourism Organization (UNWTO), the Organization for Economic Co-operation and Development (OECD). The document with a methodological proposition is named "Tourism Satellite Account: Recommended Methodological Framework 2008" and it is available at: [http://unstats.un.org/unsd/publication/Seriesf/SeriesF\\_80rev1e.pdf](http://unstats.un.org/unsd/publication/Seriesf/SeriesF_80rev1e.pdf) (Accessed on December 29 2017). Unfortunately, from 2015 WTTC do not provide results for Mediterranean region separately with details, so it is impossible to quote which is the ratio of Mediterranean travel and tourism income to the world's income.

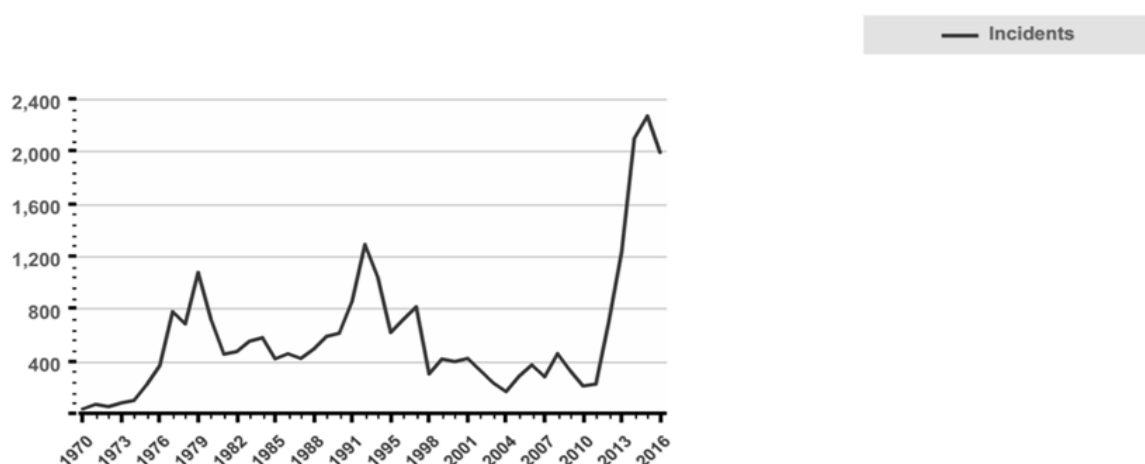
Table 1: Mediterranean countries and the contribution of travel and tourism to GDP in 2016<sup>8</sup>

Country	GDP direct contribution (%)	GDP total contribution (%)
Albania	8,4	26
Algeria	3,6	7,4
Bosnia and Herzegovina	2,5	9,2
Croatia	10,7	24,7
Cyprus	7,2	21,4
Egypt	3,2	7,2
France	3,6	8,9
Greece	7,5	18,6
Israel	1,9	6,8
Italy	4,6	11,1
Jordan	4,9	19,4
Lebanon	7,0	19,4
Libya	3,4	7,1
Macedonia	1,8	6,7
Malta	14,1	26,7
Montenegro	11	22,1
Morocco	8,1	18,5
Portugal	6,4	16,6
Slovenia	3,5	12,6
Spain	5,1	14,2
Syria	5,7	13,0
Tunisia	6,6	13,7
Turkey	4,1	12,5

Source: (WTTC, 2017)

Beside of being one of the centres of world tourism, Mediterranean is also one of the centres of terrorism. From 1970 to 2016, twenty three Mediterranean countries had a total of 27 218 terrorist attacks while third of all attacks (8,510) occurred from 2011 to 2016 which indicates a growing trend (Image 1). The only one that have not experienced terrorism act on its territory was Monaco.

Image1: Terrorist attacks in Mediterranean(1970-2016)



Source: (GTD, 2018)

<sup>8</sup> Data were presented in publication "Travel and Tourism. Economic Impact 2017". Separate publications for each country with key statistical data are available at: <http://www.wttc.org/> (Accessed on December 29 2017).

The decades of some of the most developed Mediterranean countries had been marked by some terrorist group activity (e.g. Red Brigades in Italy, Action Directe in France, Revolutionary Organization 17 November in Greece, Euskadi Ta Askatasuna – ETA in Spain, etc.). Moreover, it can be said that the countries of the Middle East and Maghreb that fall into the Mediterranean sphere, are the focal point of contemporary world terrorism. Turkey also has a long history of terrorism, which still lasts, primarily with the Kurdistan Workers' Party. There is also a well-known Lebanon's terrorist organization Hezbollah, Armed Islamic Group of Algeria, AlGama'a AlIslamiyya in Egypt and many others who were and still are important actors of Mediterranean terrorism. However, in order to confirm that the Mediterranean is a region where the terrorism is one of the key security challenges it is not necessary to go back to the past, either far or near. It is enough to look and analyse the current situation in some Mediterranean countries, primarily Syria.

That terrorism is one of the key security challenges in the Mediterranean says numerous experts, politicians and other interested actors. Sarah Wolf (2008) from the London School of Economics and Political Science in her discussion about the Mediterranean dimension of European Union counter-terrorism claimed that “key to the Mediterranean dimension of the European Union's internal security is the fight against terrorism” (p. 137). In its annual report *IEMed Mediterranean Yearbook 2016* European Institute of the Mediterranean (IEMed) a great attention has been devoted to the crises which characterize the region. For this purpose a map “Terrorism in the Mediterranean” was created where the Mediterranean countries have been marked on a level from “no terrorism impact” to “very high terrorism impact” (IEMed, 2016). It is visible from the map that the Middle East and North Africa are key points in the Mediterranean when we talk about terrorism (p. 343). Although the most of the Mediterranean countries, according to IEMed's data, have a medium, low or very low terrorism impact, but it doesn't mean that they are resistant to events in the region. President of the IEMed, Senén Florensa, warns of the effects of the crisis on the Mediterranean: “The conflicts, wars, extremist violence and political instability, moreover, are irremissibly blocking economic and social development. The possibilities of emerging from the depths of economic crisis, already difficult in and of itself, are hampered by the conditioning political and security factors affecting both North and South shores of the Mediterranean (IEMed, 2016, p. 10)”.

#### 4. The impact of terrorism on the economy with an emphasis on the tourism sector

The relationship between terrorism and the economy could be considered at three levels. The first one refers to the economic causes of terrorism, the second is about the impact of terrorism on the economy (Derin-Güre and Yavuz Elveren, 2014; Gries, Krieger and Meierrieks, 2011) and the last level relates to the analysis and application of economic concepts, approaches, methods and techniques for the study of terrorism (Müller, 2011). From the perspective of this discussion, the most significant is the second level – the impact of terrorism on the economy. The data from the Global Terrorism Database show that of the total number of terrorist incidents (1970-2016) recorded in database, 12% of them had a “business” target (GTD, 2018)<sup>9</sup>. There are numerous indicators that terrorist acts make a significant drop in global investment. For example, after Al-Qaeda 9/11 attacks foreign direct investment worldwide decrease of 50.7% compared to the previous year, from 1,491 billion to 735 billion<sup>10</sup> US dollars (Lutz and Lutz, 2014). Terrorist acts also lead to drop in investment in the target state (Powers and Choi, 2012), significantly affect market trends (Bilson et al., 2012) and affect stock market trends causing a fall in stock index values and so on.

More precise data can be obtained by insight in some country studies. Because of the terrorist attack at Bali's tourist destinations in 2002, which killed over 400 people, the Indonesian economy lost up to 3% of GDP (Lutz and Lutz, 2006a). Pergolizzi (2013) states that Turkish struggle with Kurdistan Workers' Party from 1984 to 2010 for the Turkish state had a price of 450 billion dollars. Bilgel and

<sup>9</sup>If airports and aircraft, telecommunication, tourists and transportation as a “target type” are included in the search then we could see that percentage increases to 17,6% terrorist incidents.

<sup>10</sup>Empirical studies done on a sample of 34 695 US hotels have shown that the Al-Qaeda attack on September 11 2001 had a greater negative impact on the hotel industry than the financial crisis that began exactly seven years later (Kosova and Enz, 2012).

Karahasan estimated in 2016 that Turkey's GDP would have been 14 percent higher in the absence of the Kurdish conflict, due to economic stagnation in the southeast, the loss of labour due to military service and the more general insecurity that has slowed investments over the last three decades.

Although there is not many researches on the relationship between terrorism and tourism there are some from the early 1990s, which are relevant today as well (Enders and Sandler, 1991; Enders, Sandler and Parise, 1992). Speaking about the Mediterranean context, the most significant is the study of Konstantinos Drakos and Ali M. Kutan (2003) where they have analysed three Mediterranean countries – Greece, Israel, and Turkey. The authors have used a consumer-choice model developed by Enders, Sandler and Parise (1992) which is utilized to study the regional effects of terrorism on competitors' market shares in tourism sector where involved countries enjoy significant tourism activities but are subject to high frequency of terrorist attacks. They have tested the model from January 1996 to December 1999 and found that due to terrorism, these three countries have lost almost 10% of the market share in tourism over the last decades. They also have found that the significant regional contagion effects of terrorism exist (Drakos and Kutan, 2003).

There is no need to point out that the long-term Israeli-Palestinian conflict has had its effects on Israel's as well as Palestinian tourism. After a terrorist act of Egyptian group El Gama'a El Islamiyya on foreign tourists at popular seaside resort Luxor in September 1997, Egyptian tourism income had dropped for a 50%. Two years needed Egypt in order to return at the level before the strike in Luxor (Fletcher, 2008; Lutz and Lutz, 2006b). All Mediterranean countries mentioned above are listed at the top of the scale of "total number of terrorist attacks" (Table 2). It is interesting that even eleven of them have more than thousand terrorist attacks in the period from 1970 to 2016. But apart from significant data on the number of terrorist acts, perhaps the most important information is the one about the tourism GDP total contribution.

Table 2: Terrorist attacks in Mediterranean countries (1970-2016)

Country	Total number of terrorist attacks	The number of terrorist attacks on tourist destinations
Albania	79	0
Algeria	2729	20
Bosnia and Herzegovina	159	0
Croatia	57	0
Cyprus	132	0
Egypt	2165	26
France	2642	24
Greece	1231	13
Israel	2133	16
Italy	1556	16
Jordan	101	7
Lebanon	2454	3
Libya	2053	1
Macedonia	117	1
Malta	20	1
Montenegro	5	0
Morocco	36	1
Portugal	139	1
Slovenia	6	1
Spain	3245	22
Syria	1949	0
Tunisia	104	11
Turkey	4106	20
<b>Total</b>	<b>27 218</b>	<b>184</b>

Source: (GTD, 2018)



It is logical to assume that the higher share of tourism in the overall GDP makes the state economically much more vulnerable to possible terrorist activities. According to WTTC data (Table 1), ten Mediterranean countries have tourism GDP total contribution above 15% (Malta 26,7%; Albania 26%; Croatia 24,7%; Montenegro 22,1%; Cyprus 21,4%; Jordan 19,4%; Lebanon 19,4%; Greece 18,6%; Morocco 18,5%; and Portugal 16,6%). It is impossible to assess the level of risk that terrorism represents for the economies of these states, but it unquestionably exists. So, states should certainly rely on different risk assessment tools and tools for predicting threats as well as reducing their consequences as much as possible. One well-known and useful tool is surely business intelligence.

## 5. Business intelligence (BI) and Croatian economy

The business intelligence (BI) concept is usually associated with Howard Dresner, who was the founder of the analytic (BI) department in one American consulting company in 1989. Along with Stevan Dedijer, Dresner is considered as pioneer of business intelligence. Despite the decades of using business intelligence there is no unique definition. As terminological disagreements are beyond the scope of the paper, the terms used to denote this phenomenon are just quoted here: market intelligence, economic intelligence, competitive intelligence, competitor intelligence, corporate intelligence, commercial intelligence, market monitoring and so on (Prior, 2006; GIA, 2007).

One of the most understandable definition is the one that emphasizes the action (decision making), so "business intelligence includes collecting and processing of data and information, analyzing, and converting them into knowledge which serves as a support for business decisions-making" (Bilandžić, 2008). In 2007, international professional association M-Brain<sup>11</sup> conducted a research in 281 large companies operating in nine states (Belgium, Finland, India, Netherland, Germany, USA, UK and Spain). The study showed that highly developed countries are leaders in usage of business intelligence, but also some developing countries had good results too (Figure 1).

Figure 1: Systematic Business Intelligence Activities (%)



Source: (GIA, 2007)

In the Croatian case there are four empirical studies in the field of business intelligence and its usage in

<sup>11</sup> International Professional Association M-Brain was established in 1999 as Global Intelligence Alliance (GIA) with headquarter in Finland. In April 2015 it was renamed to M-Brain. Today M-Brain operates in 12 countries around the world and is certainly one of the most important names in the business intelligence industry. Two years earlier, in 2005, GIA had carried out the same research. The full comparison of the 2005 and 2007 data was not possible since the survey did not cover the same sample of countries. For more details see (GIA, 2005; GIA, 2007).

Croatian companies<sup>12</sup>. The result presented here is the fifth research on the business intelligence conducted in 2017 and it is closely related to the one from 2010/2011. Those two are most comprehensive researches on the usage of business intelligence in Croatian companies and was realized by the Department of Sociology of the University of Zagreb and business weekly Lider. The last empirical research is cross-sectional research. This means that both studies, the first one from 2010/2011 and the second from 2017, were conducted on the sample from the same population – 1000 largest companies operating in Croatia, and in both cases the same survey questionnaire was used<sup>13</sup>. The last research shows that 50% companies that participated in the research conduct some kind of business intelligence, 20% stated that they do not use BI activities at all and 24% have institutionalized BI department within the company. One of the most important findings in the context of the paper is the one about the type of information that company collects through its BI activities (Table 3).

Table 3: Ranking/percentage of information type that companies collect

Information type	2017.
Finding new customers	98
Potential business opportunities	98
Customers	96
Placement of products and services	96
Business law regulation	96
New products, services and prices	95
Potential business partners	95
Competitor strategy and financial conditions	93
Developments in science and technology	91
Economic situation	89
Security situation	71
Personnel and potential competitors	67
Political situation	56
Socio-cultural aspects	49

Source: Data collected in research 2017

The results showed that the information on customers and products are the primary area of company interests. Obviously, while using some business intelligence activities companies are ignoring broader aspects of the environment in which they operate, primarily those related to the political and security situation that are for sure dimensions from which threats could be generated and terrorism is certainly one of them.

## 6. Conclusion

Ultimately, it is possible to talk about five key points or findings of the paper, although some of them were partially known. First of all, from 1970 to 2016, the Mediterranean has often been the target of

<sup>12</sup>Jurišić (2005), Zebić (2010), Bilandžić et al. (2012); Luetić (2013).

<sup>13</sup> The structured questionnaire used in the research was divided into three themes. The first part referred to the knowledge and application of business intelligence in practice. The second part of the questionnaire included questions about the future plans of the company related to the business intelligence and the opinion about BI. The third part referred to general information about a business entity (company). The survey was conducted using the online survey method, and invitations to participate in the research were sent to the electronic addresses of 1000 largest (by revenue) companies. The response of the companies was very low (7,4%). For comparison, the responsiveness in the first research (2010/2011) was 23% which is a very good percentage.

terrorism, and the rise of the number of terrorist attacks has been more noticeable from 2011 onwards. Secondly, Mediterranean is undisputed a tourist region and the economies of many Mediterranean countries are dependent on tourism income to a large degree. Consequently, many Mediterranean countries are exposed to a significant risk, and terrorism is becoming one of the permanent threats to their (economic) security. The studies on business intelligence (BI) as a tool for identifying threats and dealing with them, suggests that very developed countries predominantly have recognized the advantages of BI. The latest data research from 2017 indicates that implementation of BI activities in Croatia significantly differs from the world average and in applying of BI activities companies are primarily focused on business dimension, while ignoring the political and security dimensions from which threats are generated. Although, compared with 2010/2011 positive shift is noticed. This means that last security and political events in the world have influenced the awareness of business subjects to a certain extent. The dependence on the tourism sector and the lack of important tools for identifying risks lead the economy of a country as well as the overall security in a very unpleasant situation. Undoubtedly, contemporary security and political circumstances require new strategies, but also new tactics for preserving security and achieving the economic progress. Therefore, states should have to, first and foremost, develop counterterrorism policies as well as policies on the equal development of all economic sectors. Certainly, business intelligence in that context is a necessary tool for achieving and sustaining (economic) security and thus the welfare state.

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**Addition – images, figures and tables**Table 1: Mediterranean countries and the contribution of travel and tourism to GDP in 2016<sup>14</sup>

<b>Country</b>	<b>GDP direct contribution (%)</b>	<b>GDP total contribution (%)</b>
Albania	8,4	26
Algeria	3,6	7,4
Bosnia and Herzegovina	2,5	9,2
Croatia	10,7	24,7
Cyprus	7,2	21,4
Egypt	3,2	7,2
France	3,6	8,9
Greece	7,5	18,6
Israel	1,9	6,8
Italy	4,6	11,1
Jordan	4,9	19,4
Lebanon	7,0	19,4
Libya	3,4	7,1
Macedonia	1,8	6,7
Malta	14,1	26,7
Montenegro	11	22,1
Morocco	8,1	18,5
Portugal	6,4	16,6
Slovenia	3,5	12,6
Spain	5,1	14,2
Syria	5,7	13,0
Tunisia	6,6	13,7
Turkey	4,1	12,5

Source: (WTTC, 2017)

<sup>14</sup> Data were presented in publication “Travel and Tourism. Economic Impact 2017”. Separate publications for each country with key statistical data are available at: <http://www.wttc.org/> (Accessed on December 29 2017).

Table 2: Terrorist attacks in Mediterranean countries (1970-2016)

Country	Total number of terrorist attacks	The number of terrorist attacks on tourist destinations
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Greece	1231	13
Israel	2133	16
Italy	1556	16
Jordan	101	7
Lebanon	2454	3
Libya	2053	1
Macedonia	117	1
Malta	20	1
Montenegro	5	0
Morocco	36	1
Portugal	139	1
Slovenia	6	1
Spain	3245	22
Syria	1949	0
Tunisia	104	11
Turkey	4106	20
<b>Total</b>	<b>27 218</b>	<b>184</b>

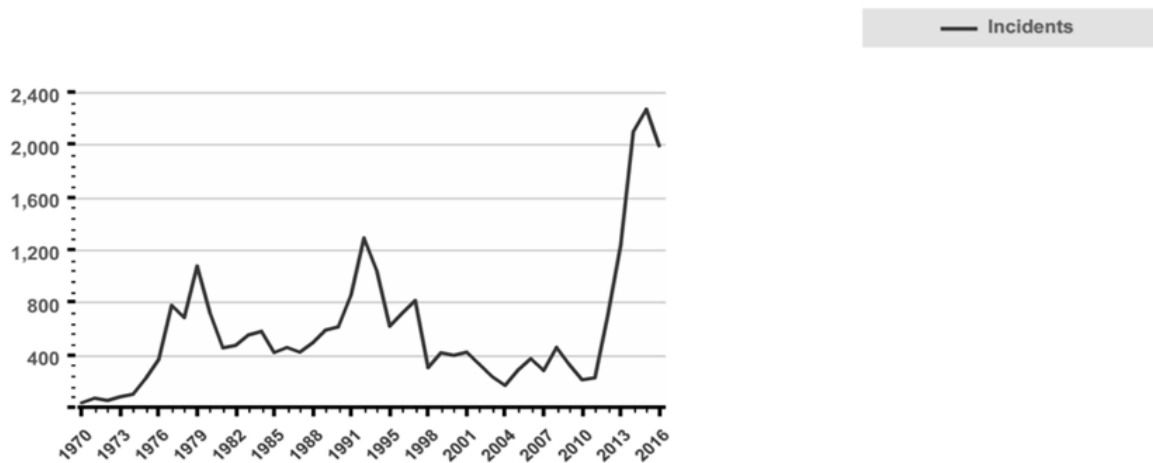
Source: (GTD, 2018)

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Potential business partners	95
Competitor strategy and financial conditions	93
Developments in science and technology	91
Economic situation	89
Security situation	71
Personnel and potential competitors	67
Political situation	56
Socio-cultural aspects	49

Source: Data collected in research 2017

Image2: Terrorist attacks in Mediterranean (1970-2016)



Source: (GTD, 2018)

Figure 2: Systematic Business Intelligence Activities (%)



Source: (GIA, 2007)



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## BIG DATA – BETWEEN THE COMPETITION POLICY AND PRIVACY AND DATA PROTECTION

**Abstract:** Collecting, storing, analysing, and working with data play an important role in the modern, data-driven economies. Big Data consequently brings many new challenges in terms of data privacy and protection of competition that need to be considered in several areas of law, particularly data protection, consumer, privacy and competition law. The objective of the article is to analyse the privacy and data protection concerns from a competition policy perspective considering that any issues relating to the sensitivity of personal data are not, as such, a matter for competition law or within the scope of intervention of competition authorities. Nevertheless, some competition authorities have begun studying Big Data to consider the possible role of competition law, but it is still unclear whether this is because it is believed that there are really novel issues.

The authors point out that the key question is whether data protection and privacy issues should be assessed in competition proceedings, having in mind German Facebook case where Bundeskartellamt investigates whether a potential breach of data protection provisions also means that Facebook abused its dominant market position.

**Keywords:** Big Data, competition law, privacy, data protection

### 1. Introduction

In 2016 a Mexican girl Rubi was celebrating her 15th birthday - a traditional coming-of-age party in Mexico known as “quinceañera”. But, instead of the invitation to family and friends only, the girl’s father uploaded video invitation to daughter’s Facebook page and accidentally set it as a public post that went viral. He closed the invitation with the words: “Everyone is cordially invited.” As a result, more than one million people had replied and thousands came from across the world and attended birthday party at a ranch in central Mexico, featuring local bands, delicious meals and a horse race.

Eventually, the event resembled a rock concert. Rubi and her family made TV appearances, Mexican airline Interjet offered discounted tickets to the nearby airport, cars blocked access roads, state police deployed extra security for the event and Red Cross workers also had to monitor the situation. Unfortunately, the celebration turned to tragedy when a man who regularly raced horses and worked at a local stable, was trampled during the horse race.

The girl’s mother later explained that the idea had been to invite everyone in the neighbourhood, not the world, but it was late. Rubi’s party gained national and international notoriety and the well-known world’s media published the news about the party - CNN, Daily Mail, Fox News, The Guardian, BBC, The Telegraph, etc.

This event was reminiscent of parties which invitations were posted via social media: in 2008 by Corey Worthington, whose invitation drew hundreds to his home in Melbourne; in 2010 by a 14 years old girl in

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Hertfordshire who had to cancel her party after accidentally making the details public on Facebook, leading to thousands of confirmations of the invitations from strangers; in 2012 by a 16 years old girl in the Netherlands whose invitation on Facebook was mistakenly posted as “public”, because she forgot to mark the event as “private”. The schoolgirl from a small Dutch town wanted just a quiet celebration with a dozen guests, but at the end a riot broke out after more than 3000 people turned up and the father had to call police to rectify the situation.

These cases are interesting examples of what are the consequences of Big Data and its wrong use and how the Big Data can influence people’s personal lives and its privacy and security. Nevertheless, in the light of technology-driven market changes, the important question that arises in practice of the competition authorities is what happens when Big Data is misused by companies dealing with Big Data, including social media, search engines, online advertisers, data brokers, retailers (Facebook, Google, Microsoft, Yahoo, Apple, eBay, Amazon, Viber, Skype, WhatsApp, Twitter, LinkedIn, Airbnb, etc.) – whether and how to apply the competition rules to companies handling the personal data of its users?

The authors analyse whether competition authorities should deal with Big Data challenges to information and personal security and privacy and do they need a new theory of harm to consider anti-competitive behaviour of companies. Such challenges for competition policy in the digital economy reflect the people’s needs to their personal data stay private so the main problem is not in the data or the amount of the data but in the way the data is used and protected, i.e. how the Big Data applications are implemented. Hence, the paper focuses on the questions related to new standards for data and market protection when assessing the relevance of data for competition law enforcement.

The authors point out that the key question is whether data protection and privacy issues should be assessed in competition proceedings, having in mind German Facebook case where Bundeskartellamt investigates whether a potential breach of data protection provisions also means that Facebook abused its dominant market position.

## **2. Privacy and Data Protection**

The growing amount of information raises issues related to the way the data is used and protected. Since the dynamic of expansion and reaction is now confronting the movement of data, most people consider technology as a potential problem, although the large assets of information are useful from a practical and a scientific side. “Security” and “privacy” are these concerns as the opposite side of the benefits of technology.

All these data are often from various sources yet unstructured such as social media, sensors, scientific applications, surveillance, cellphones, video and image archives, Internet texts and documents, Internet search indexing, medical records, business transactions and system logs. Additionally, with more and more data being collected about consumers (from their shopping habits to their sensitive health information), its use is well established in consumer goods markets or retail financial services. For example, companies use loyalty cards, credit and debit card transaction history and other financial transaction data to build a profile of their customers. In that way, data driven companies are allowed to collect data on consumers’ purchases, habits and preferences and such profiles can then be used in advertising and marketing, product development and other aspects of companies. However, possessing and using those data does not in itself pose a security or privacy problem, but with the advances of information communication technologies, it is important to improve the protection of data and privacy. Particularly, in the context of very popular to buy on-demand additional computing power and storage from public cloud providers.

In this way, security and privacy risks can be potentially created or increased through a lack of confidentiality in the different security mechanisms and unauthorized access to personal data regardless

where the data resides (data centres, computers, mobile devices, etc.). It also has been acknowledged that the growth of big data increases the threats to the security of information. A number of emerging threats arising from the potential misuse of data have been identified because the uncontrolled collection, usage and dissemination of data are the perfect playground for malicious activities.

It is therefore important to understand what security and privacy issues mean. “Security” means the state of being free from danger or threat while “privacy” means a state in which one is not observed or disturbed by other people and the state of being free from public attention (Agrawal, Tripathi, 2015, 12). Rules on security aim at avoiding threats to the data basis as a system that can consist in the availability due to attacks on the system or the integrity of information and can go beyond a simple menace to economic safety and endanger national and international security (Weber, Weber, 2010, 41). The term “privacy” conveys a large number of concepts and ideas but usually, an individual wants to control access to his/her personal information. Some areas related to privacy that can be identified are related to physical space, decision-making power and information privacy (Weber, Weber, 2010, 41-42).<sup>3</sup>

The potential for misuse of sensitive personal data has triggered legislative and regulatory action worldwide. Privacy and data protection are commonly recognised all over the world as two separate fundamental rights, as well as in EU. The Right to Data Protection Privacy and data protection are two rights enshrined in the EU Treaties and in the EU Charter of Fundamental Rights. The right to privacy or private life is enshrined in the Universal Declaration on Human Rights (Article 12), the European Convention of Human Rights (Article 8) and the European Charter of Fundamental Rights (Article 7).

The EU Charter contains an explicit right to the protection of personal data (Article 8). It goes beyond simply protecting against interference by the state. It is a proactive right which entitles the individual to expect that his or her information will only to be processed, by anyone and not only the state, if certain essential requirements laid down in Article 8(2) and (3) are fulfilled. This requires that the processing is fair and lawful and for specified purposes, that it is transparent to the individual who is entitled to access and rectification of his/her information, and that the rights must be subject to control by an independent authority. In addition, article 16 of the Treaty on the Functioning of the European Union requires rules to be laid down relating to data protection and to the free movement of such data in the internal market.<sup>4</sup>

In order to provide improved security right at the origin of data, and mechanisms of control and prevention on archiving, in April 2016, the EU adopted a new legal framework – the General Data Protection Regulation (Regulation 2016/679 – GDPR) (Zarsky, 2017). The GDPR will come into force on 25 May 2018 and will replace the current data protection legal framework based on the EU Data Protection Directive (95/46/EC).<sup>5</sup> The new rules are updated to deal with the implications of the digital age and should provide increased legal certainty for both individuals and organisations processing data and greater protection for the individual in general. It is intention to harmonise European laws in this area and to ensure that the rules adapt to the challenges brought about by globalisation and technological development. Big Data and smart devices give rise to a number of challenges and reveal a series of potential gaps in the EU legal framework, in particular in the following areas: transparency and information obligations of data controllers; consent; and the need to balance public interest and the interests of data subjects for legitimising personal data processing (Fuste and Scherrer, 2015, 24).

According to GDPR, personal data should be processed in a manner that ensures appropriate security and confidentiality of the personal data, including for preventing unauthorised access to or use of personal data

<sup>3</sup> For further information, see Ferretti, 2014, 103-106.

<sup>4</sup> For further information in EU, see Ferretti, 2014, 106-109; European Data Protection Supervisor, 2014, 11-13. In the Republic of Serbia, personal data protection is regulated by the Law on Personal Data Protection, adopted in 2008 (Zakon o zaštiti podataka o ličnosti, “Službeni glasnik RS”, br. 97/2008, 104/2009 - dr. zakon, 68/2012 - odluka US, 107/2012).

<sup>5</sup> The current relevant legal framework to assess privacy issues raised by big data analytics in the EU is composed of Directive 95/46/EC and Directive 2002/58/EC (as amended by Directive 2009/136/EC).

and the equipment used for the processing (par. 39). Additionally, the processing of personal data to the extent strictly necessary and proportionate for the purposes of ensuring network and information security, i.e. the ability of a network or an information system to resist, at a given level of confidence, accidental events or unlawful or malicious actions that compromise the availability, authenticity, integrity and confidentiality of stored or transmitted personal data, and the security of the related services offered by, or accessible via, those networks and systems, by public authorities, by computer emergency response teams, computer security incident response teams, by providers of electronic communications networks and services and by providers of security technologies and services, constitutes a legitimate interest of the data controller concerned (par. 49).

The controller and the processor shall implement appropriate technical and organisational measures to ensure a level of security appropriate to the risk, including inter alia as appropriate: (a) the pseudonymisation and encryption of personal data; (b) the ability to ensure the ongoing confidentiality, integrity, availability and resilience of processing systems and services; (c) the ability to restore the availability and access to personal data in a timely manner in the event of a physical or technical incident; (d) a process for regularly testing, assessing and evaluating the effectiveness of technical and organisational measures for ensuring the security of the processing (GDPR, Article 32).

### 3. The Competitive Significance of Big Data

In describing “Big Data”, this phrase is generally accepted and it is usually referred to the “four Vs”: the volume, velocity, variety and the value of the data (Stucke and Grunes, 2016, 16).<sup>6</sup> There is no single definition for such phenomenon since it does not have a universally understood meaning.

Collecting, storing, analysing, and working with enormous quantities of data play an important role in the modern, data-driven economies. There are significant benefits to consumers, undertakings, and government agencies from dealing with a large amount of data generated by smart devices to transform the data into useful knowledge. At the same time, the achievements of Big Data do not come without a cost since there is “no such thing as a free search (lunch)” (Burnside, 2015, 2; OECD, 2016, 25). There is also a question whether consumers, as private individuals, fully understand the price for services. The consumers should realize that they are “paying” for “free” information or services by disclosing their personal information, i.e. in information about themselves. While the analysis of Big Data, i.e. creating intelligence (patterns) from the data collected from social media, mobile phones usage patterns or mobile networks has become instrumental in the business planning of the undertakings, data thus bring many challenges related to data privacy, data protection and its security, and protection of competition.

The numerous competition authorities around the world have begun studying Big Data to consider the implications of Big Data on competition and the possible role of competition law in the regulation of Big Data, but it is still unclear whether this is because it is believed that there are really novel issues. The Authorities are increasingly paying attention to Big Data phenomenon, giving it further visibility and propelling debates, because a key concern of competition agencies is potential harm arising from undertakings acquiring unique data sets as clearly a valuable and big asset and input factor for many businesses, and also as a source of market power.<sup>7</sup>

An overview of recent studies by national competition authorities and comparative practice concerning the markets where data collection is critical, as well as potentially anticompetitive practices of undertakings to acquire data or to prevent their competitors from acquiring data, shows that key issue is whether data

<sup>6</sup> Some definitions reflect to three „Vs” (data volume, velocity, variety) or even five or six “Vs”. The “3 Vs” definition is originally introduced by Laney (2001), i.e. the *volume* of data; the *velocity* at which data is collected, used and disseminated; the *variety* of information aggregated.

<sup>7</sup> For further information on data as a source of market power, see Schepp and Wambach, 2016, 120-124.

protection and privacy issues should be assessed in competition proceedings. Hence, it is important the competition authorities correctly address to this Big Data concerns.

In the interests of ensuring a level playing field, competition laws apply equally to all data controllers since competition policy is a vital part of every market. Its aim is to provide everyone in the EU and world-wide with better quality goods and services at lower prices. Competition policy is about applying rules to make sure companies compete fairly with each other as well as promoting a competition culture. This encourages enterprise and efficiency, creates a wider choice for consumers and helps reduce prices and improve quality. These are the reasons why the EU and national authorities fight anticompetitive behaviour and reviews mergers. To these aims, Articles 101 and 102 of the Treaty on the Functioning of the European Union prohibit agreements between companies which would prevent or distort competition, seek to prevent abuse of a dominant position, and require the Commission to investigate cases of suspected infringement of the principles of competition. The Council Regulation (EC) No 139/2004 contains the main rules and procedures for the assessment of concentrations.<sup>8</sup>

It is, thus, very important for undertakings to comply with competition rules, concretely with the three pillars of competition law – restrictive agreements, abuse of dominant position, merger control, in order to successfully achieve business projects of which crucial part is Big Data. In merger control, there are concerns about the concentration of data resulting from a merger of two undertakings active in the collection and sale of Big Data and the notification thresholds in Big Data mergers, because transactions involving Big Data can involve undertakings with valuable data sets that do not yet generate high revenues. Another issue is that Big Data could result in the foreclosure or marginalization of competitors active in markets where the data is used (abuse of dominance) and in the anticompetitive exchange of information between competitors through Big Data (collusive practices). Identifying the relevant market for antitrust purposes in these cases can be a particularly daunting task anyway.

The authors ask is there any reason for special treatment of Big Data under competition law, considering, for example, the European Commission has considered data related concerns in a number of merger control decisions, particularly considering privacy concerns, including Facebook/WhatsApp, Google/DoubleClick and Microsoft/LinkedIn.<sup>9</sup> In addition, the UK CMA has published a report on commercial use of consumer data,<sup>10</sup> and the German Federal Cartel Office and the French Competition Authority published a joint paper on the impact of Big Data on competition law and identified key issues that competition authorities should consider when assessing the interaction among Big Data, market power and competition law.<sup>11</sup> The French and German competition authorities, in addition to having identified certain competition concerns, such as barriers to entry and foreclosure effects, recognized a fair degree of overlap between data protection and competition law: “Decisions taken by an undertaking regarding the collection and use of personal data can have, in parallel, implications on economic and competition dimensions. Therefore, privacy policies could be considered from a competition standpoint whenever these policies are liable to affect competition, notably when they are implemented by a dominant undertaking for which data serves as a main input of its products or services” (Autorité de la concurrence and Bundeskartellamt, 2016, 23). Most recently, the Canadian Competition Bureau published a draft discussion paper that provides the Bureau’s initial views on how it will approach data-related considerations in a number of areas.<sup>12</sup>

<sup>8</sup> In the Republic of Serbia, the protection of competition is regulated by the Law on Protection of Competition (Zakon o zaštiti konkurencije, “Službeni glasnik RS”, br. 51/09 i 95/13).

<sup>9</sup> For further information, see Breuvart et al., 2016, 41-55.

<sup>10</sup> Competition and Markets Authority (CMA) (2015, June). The commercial use of consumer data Report on the CMA’s call for information, CMA38.

<sup>11</sup> Autorité de la concurrence and Bundeskartellamt (2016, May). Competition Law and Data – Report.

<sup>12</sup> Competition Bureau (2017). Big Data and Innovation: Implications for Competition Policy in Canada.



#### 4. Issues concerning the assessment of data protection and privacy issues in competition proceedings

The prevailing view in academic literature and comparative practice is that Big Data is more appropriately framed as a privacy or data protection issue than one of protection of competition. However, under certain conditions, there is a possibility to consider and that is that; the privacy as a criterion that may become relevant in competition cases involving Big Data. Privacy considerations may significantly affect merger reviews and eventually affect the decision to clear or block a merger, when privacy and data protection are taken into account by competition authorities and considered as relevant parameters of non-price competition. The first competition law enforcement case involving privacy seems to be the Google/DoubleClick merger, when Commissioner of the US Federal Trade Commission raised the concern that the merger would deprive consumers of meaningful privacy choices (in the end, the merger was cleared in USA) (OECD, 2016, 18; Harbour and Koslov, 2010, 769-794).

Personal data have become the core asset of many undertakings operating in the data-driven economies since many of these undertakings have adopted business models that rely on personal data as a key input. Consequently, people are worried about how big data will influence their personal lives, having a strong feeling that they have lost control of their personal data and no one can control data rich companies. But, the introduction of a privacy dimension into competition policy gives rise to difficult controversies because there is currently no consent in the literature and comparative practice about the implications of Big Data for competition law enforcement.

Some believe that competition policy should have as sole objective the promotion of competition and it is not the task of competition policy to safeguard data protection and privacy in general. Since both constitute different policy fields, from this standpoint, current privacy and consumer protection legislation is sufficient to take care of these concerns. The above certainly does not mean that competition law is completely irrelevant to data protection and privacy. In *Asnef-Equifax* case, the European Court of Justice confirmed that “any possible issues relating to the sensitivity of personal data are not, as such, a matter for competition law, they may be resolved on the basis of the relevant provisions governing data protection”.<sup>13</sup> This is also confirmed by the European Commission in *Google/DoubleClick*<sup>14</sup> and *Facebook/WhatsApp* cases.<sup>15</sup> Others however invite competition authorities to use competition law to prevent violations of data protection laws and intervene in terms of concerns related to Big Data consisting of personal information. For these reasons, the approach of German Bundeskartellamt in *Facebook* case seems to be controversial, since it involves an investigation whether a potential breach of data protection provisions also means that Facebook abused its dominant market position.

The European Commission has analysed data issues in the past, in a number of merger control cases. In *Google/DoubleClick*, the Commission assessed whether the combination of the parties’ databases would impede competition; privacy issues were raised but did not play any decisive role in the Commission’s decision. In *TomTom/TeleAtlas*, the Commission looked at the risk that the accumulation of data could lead to a lowering of the level of protection of confidential data.<sup>16</sup> The *Microsoft/LinkedIn* is an important development in the Commission’s assessment of mergers involving data-related issues in tech industries. It provides further guidance on the framework for the assessment of Big Data issues and offers an insight

<sup>13</sup> Case C-238/05, *Asnef-Equifax*, *Servicios de Información sobre Solvencia y Crédito, SL*, Administración del Estado v. Asociación de Usuarios de Servicios Bancarios (*Ausbanc*), Judgment of the Court of 23 November 2006, Reports of Cases 2006 I-11125, 63.

<sup>14</sup> Case No COMP/M.4731 – *Google/DoubleClick*, Commission Decision of 11/03/2008.

<sup>15</sup> Case No COMP M.7217 - *Facebook/WhatsApp*, Commission Decision of 03/10/2014. In the *Facebook/WhatsApp* merger (par. 164), the Commission had stated that any privacy-related concerns flowing from the increased concentration of data within the control of Facebook as a result of the merger do not fall within the scope of the EU competition law rules but within the scope of the EU data protection rules.

<sup>16</sup> Case No COMP/M.4854 – *TomTom/TeleAtlas*, Commission Decision of 14/05/2008.

into how the Commission looks at complex conglomerate issues in the tech industries, as well as privacy related concerns (Kadar, Bogdan, 2017).<sup>17</sup>

In what appears to be a first amongst competition authorities in Europe, in March 2016, the German Bundeskartellamt opened proceedings against Facebook on suspicion of having abused its market power by infringing data protection rules. In its preliminary assessment in Facebook proceeding, in December 2017, the Bundeskartellamt pointed out that privacy concerns and the question of how that company handles the personal data of its users are relevant for the competition authorities if access to the personal data of users is essential for the market position of a company. Therefore, monitoring the data processing activities of dominant companies is therefore an essential task of the competition authority which cannot be fulfilled by a data protection authority (Bundeskartellamt, 2017b; Bundeskartellamt, 2017a, 1-2).

In the digital economy, the collection and processing of data appears to be an entrepreneurial activity that has great relevance for the competitive performance of a company. The German legislator has acknowledged this relevance in 2017, by the amendment to the German Competition Act (*Gesetz gegen Wettbewerbsbeschränkungen*). Among others changes, the amendment aims to adjust the domestic competition law to some of the challenges that come with Big Data and with the digital economy more generally. The Act now provides criteria to be taken into account when assessing market power of an undertaking in digital markets („multi-sided markets and networks“), including direct and indirect network effects, parallel use of multiple services and switching costs for the user, economies of scale in the context of network effects, access to competitively relevant data (market relevant data) and the role of innovation in digital markets. Article 18(3a) of the German Competition Act accordingly introduced the personal data as a criterion for assessing market power, especially in the case of online platforms and networks. This broadens the tools available to Bundeskartellamt to assess market power when dealing with Big Data or network effects in digital markets, which means that Bundeskartellamt's considerations in Facebook case are not as radical as it appears at first glance. Such approach could be justified with the Allianz Hungária judgment (Case C-32/11), where the European Court of Justice held that the violation of a specific set of national rules (Hungarian insurance law) could be taken into account to assess an EU competition law infringement (para. 46-47).

The Bundeskartellamt is presently examining whether Facebook imposes unfair conditions on its users by making them choose between accepting “the whole Facebook package”, including an extensive disclosure of personal data, or not using Facebook at all (Bundeskartellamt, 2017a, 2). The German authority has informed Facebook that it is assumed that company is dominant on the German market for social networks. The Bundeskartellamt holds the view that Facebook is abusing this dominant position by making the use of its social network conditional on its being allowed to limitlessly amass every kind of data generated by using third-party websites and merge it with the user's Facebook account (Bundeskartellamt, 2017b). If a dominant company makes the use of its service conditional upon the user granting the company extensive permission to use his or her personal data, this can be taken up by the Bundeskartellamt as a type of exploitative abuse under German competition law. In addition, civil law principles can also be applied to determine whether business terms are exploitative. The damage for the users lies in a loss of control: they are no longer able to control how their personal data are used. Facebook now has the opportunity to comment on the Bundeskartellamt's preliminary assessment notice and provide justifications for its conduct or offer possible solutions. A decision on the case is not expected before early summer 2018 (Bundeskartellamt, 2017a, 3-5).

## 5. Conclusion

In the era of new businesses models based on the collection and processing of Big Data, competition law is at the crossroad between Big Data, market power of dominant companies and the transformative effects

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<sup>17</sup> Case No COMP/M.8124 – Microsoft/LinkedIn, Commission Decision of 6/12/2016.



that the phenomenon of Big Data is currently having on the of the world. Although data as a potential anti-competitive concern is not a particularly new issue, what has changed dramatically in recent years is the size and scope of the data that companies collect, store, and use (Sokol and Comerford, 2016, 1140). In addition, consumers increasingly feel they have no choice but to use the dominant companies in order to use good quality services. It is thus important that competition authorities take into account the growing significance of Big Data as an input factor and valuable asset in mergers and acquisitions. Big Data is an ongoing concern for competition laws and competition authorities should generally be flexible enough to address the challenges posed by Big Data.

The above-presented consideration shows that competition policy is already equipped to adapt its analytical tools to deal with data related competition problems and to apply a consumer welfare standard.<sup>18</sup> Having in mind the traditional divide between competition law and data protection law, it appears that new rules are not necessary as competition authorities already have the necessary tools to handle with anticompetitive conduct relating to Big Data. The competition authorities should be competent and best placed to handle concerns over personal data and there is little reason to expand the scope of competition law in order to protect consumer welfare in such way. It seems that competition authorities do not need a new theory of harm to consider anti-competitive behaviour of data rich companies but need to understand new types of effects because currently, under comparative competition law, privacy-related issues are likely to remain one of the most sensitive topics. It is also important to develop tools for the assessment of non-price elements of competition that have to be considered, as one of the most difficult problem in competition proceedings is to operationalise “privacy” and the competition authorities have better tools to assess price effects. Depending on its outcome, the Bundeskartellamt’s investigation of Facebook may set up new basis in this respect, but it is uncertain that the German approach would be exported to other competition authorities’ practice. Anyway, it is clear that mere privacy issues should be addressed by data protection law and that Big Data is and will continue to be on the agenda of the competition authorities for years to come.

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## **ECONOMIC POWER OF THE STATE AND NATIONAL SECURITY**

**Abstract:** Economic power is an indispensable component of national security. Some theorists have also noted that economic power is the most important component of national security in contemporary international relations. States remain unavoidable actors of economic relations. Economic power is the state's means to position itself in the world political system, because its enlargement provides for internal stability and a better position for confrontation with other actors. The motivation of states to defend the level of economic development or increase their economic power is enormous and unquestionable, which is why foreign and security policies are directed in this direction. The article consists of four parts. The first part explains the concept of national security. The second part determines what we mean by economic power, and in the third part we analyze the importance of the economic power for states. The fourth part is final considerations.

**Key words:** economic power, national security, international relations, international security, state.

### **1. Concept of national security**

The concepts of "national interest" and "national security" have for a long time been in the center of researcher's attention. Viewed from the angle of idealist theory, the question arises as to whether these are explained terms or even whether such a thing as "national interest" exists at all? From the angle of the realists, there are no such doubts. If national interest is "the highest goal", then national security is "the most important value". It represents the need of one nation and the priority activities of a state, individuals and social groups are directed at achieving that value. At the same time it is a process that includes a number of measures in order to insure a permanent and sustainable development of a state. These measures are taken in order to defend a state as a political institution that can protect the individual and society as a whole, their property and environment from the threat that can significantly weaken its functioning or threaten its values that have special significance.

Therefore, in the definition of the national security concept of the Indian National Defense College, it is stated that this is "a mixture of moderation and aggression, political elasticity and maturity, human resources, economic structure and its capacities, technological capabilities, industrial development and availability of natural resources, and at the end of the military force" (Oladipo, 2013: 82).

This approach also results in the explanation that national security is "the ability of one nation to overcome multi-dimensional threats that concern the welfare and survival of the state at any time by maintaining the balance of all state policy instruments through governance" (Paleri, 2008: 54). If the potential of power is greater then it is easier to achieve national interests, thus ensuring national security. And the other way around.

The achievement of national security and the realization of national interests can be realized through different approaches and strategies. In the modern world, "the national security policy of the state depends on the type and the prevalence of state and national interests, and of the current and potential threats that endanger or may endanger these interests. Threats can be: political, economic, military, demographic, social, confessional, educational, and ecological or threats caused by a long-term covert action of retrograde forces in all areas of social life. The problems of defining the concept of national security come to a full expression only when one needs to identify the values that can be endangered and when one needs

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to define vital state and national interests that should be protected by the elements of the national security system" (Gaćinović, 2007:12).

## 2. Concept of economic power

Looking at the definitions above, economic power is an indispensable component of national security. Economic power is an instrument of a state that helps it to position itself in the world political system, because its enlargement provides for internal stability and a better position for dealing with other actors. The motivation of a state to defend the level of its economic development or increase its economic power is enormous and unquestionable, which is why foreign and security policies are directed in this way.

Neil Ferguson concludes that economically more powerful states were most likely to win in wars. Cases when this did not happen were exceptions. Without adequate economic potential, it is not possible, or it is very difficult, to develop other types of power - military and political. Nevertheless, Ferguson also emphasizes that political events, and wars above all, have decisively influenced the formation of institutions of economic life in certain historical periods (Ferguson, 2012). Economic activities are, therefore, conditioned by political impulses and decisions that ultimately do not have to be motivated by economic reasons. Actors that do not have sufficient military or political power to protect their economic interests will not be able to develop the economic system or create a desirable economic and social environment. And the other way around: countries with high economic growth will allocate a portion of wealth to armaments and will be secured by using various political means, so that someone would not take their entire wealth. The author claims that all of this will be possible thanks to a fair global order, which will regulate the rules of competition is historically unfounded and practically unfeasible. States are therefore interested in continually increasing their economic power. This is the reason for the conduct of security and foreign policy

Economic power implies the disposal of certain capital, knowledge or assets. For Massimiliano Vattiero, economic power represents the ability to influence entities of power by economic methods in order to obtain economic benefits. The author further distinguishes different types of economic power, such as bargaining power, labor power, etc. (Vattiero, 2009).

## 3. The importance of increasing economic power for states

States continue to be the indispensable actors of economic relations. On the one side there is a struggle for power and capital, struggle for knowledge (development of new technologies) and property (natural resources, economic subjects etc.) so it is in the interests of states to influence as much as possible the processes related to enlargement and attraction of capital, development of new technologies and control of economic resources. On the other hand, capital moves where it "feels the safest", innovations arise in established systems where it is invested in education and technological development. Often an agreement is needed between the state and non-state actors in terms of resource exploitation (especially with regard to protection environment and investments in achieving environmental standards). That is why it is in the interest of non-state actors to work in a more favorable ambient, to be a part of a stable system so that they could plan their long-term activities. As a result there is a symbiosis of interests of state and non-state actors which is more visible in actions outside of a country than in the country. For non-state actors wanting to increase their economic capacity, the goal is related to acquiring new wealth, while increasing the economic capacity for the state is linked to political goals.

Since states are indispensable actors of economic relations and their economic power is important for shaping overall international relations. Some actors are economically stronger, others are weaker and thus relations between them change. Economic growth or decline in the country is influenced by a number of internal and external political factors, but above all the issue of ensuring fundamental security. The

industrial revolution in XIX century brought big changes in world economy and this has reflected on economic power of states. "Developing countries owned two thirds of wealth in 1820. Their share fizzled away in a century. For example, between 1800 and 1900, China has gone from 30% to 5% of global wealth. The explanation is simple: in the XVIII century, the population, like the balance, significantly determined the share of countries in global wealth. The more populous country was richer for the simple reason that the income per capita was more or less the same, from one country to another. This order was violated in the XIX century. Thanks to the Industrial Revolution of the XVIII century, Europe and the countries it settled managed to rise above its demographic state. England ruled the world with less than 2% of the world's population" (Koen, 2014:78). Thanks, among other things, to their economic power, European powers are becoming leaders throughout the world. Today we are witnessing a change in the power relations. The "New Industrial-Informational Revolution" is now again affecting the changes in the "blood of the world economy". The strongest impulses are in the Pacific region, which "becomes the *mare nostrum* of the new capitalism after the Mediterranean in the old and the Atlantic in the new century" (Koen, 2014:78). Countries have internal and external reasons to increase their economic power. Internal reasons are related to the stability of the system, the satisfaction of the citizens, their confidence and ultimately by ensuring the necessary legitimacy to the pursued policy. If they are economically weak, countries face a number of internal challenges.

External causes are aimed at gaining a better position in international relations, in order to better defend national interests and ensure national security. The greater the economic power of a state, or the system under its control, the better its position. The wealthier countries are having the greatest say in matters of international issues and security. Unlike a number of international political forums where it is voted under a democratic rule, one state - one voice, in economic forums and even more often in economic (trade) relations between states - the principle "one dollar - one vote" applies more often than not. If they are economically more powerful, states can impose solutions to weaker actors. Also, dragging the weaker stakeholders into a kind of dependency on a more economically viable state, whether through investments, import-export arrangements or lending, facilitates the implementation of stronger actor's foreign policy. Charles Kegley and Eugene Wittkopf warn that the effect of economic factors on the positioning of actors in international politics is as important as the action of military factors. Citing Lester Thurow, predict that in the future, large powers are likely to directly confront on "economic battlefields". "Diffusion of wealth points to the likely intensification of political competition between great powers. In the course of history, changes in comparative economic advantages preceded the political rivalry. When there was multipolarity, economic rivals were trying to protect their wealth and compete politically for economic positions. This was most often followed by a military conflict. It is difficult to predict how the great powers will be militarily and economically ranked in the XXI century. A great variety of strategic and trade relations is possible. The prediction task in the first decade of the XXI century is further complicated by the paradox that many of the great powers pairs, the most active trading partners, are at the same time the largest military rivals" (Kegley and Vitkof, 2004: 209-211). Economic power is most often analyzed according to certain econometric indicators. Econometrics uses mathematical methods and statistics for the presentation of economic data, and thanks to its development, it is possible with a certain degree of reliability to predict future trends in the economy (Hušek, 2007). The most commonly used indicator of economic power is gross domestic product (which is defined as total generated domestic income or the total production of goods and services realized in the national economy) in various forms (total, *per capita*, according to purchasing power parity, according to the purchasing power parity *per capita* and so on). Also, for the analysis of bilateral relations, one can use indicators on trade, exchange structure, investment height and other data concerning economic relations between the two countries. However, although econometric indicators can be highly reliable, it should be kept in mind that economic data are not experimental in nature, and therefore modeling does not use a deterministic, but stochastic approach.

Without economic power, it is not possible to have either military or political power. How is it possible to develop military potential without financial support? Military budgets have to be specifically dedicated. Scientific research, essential for technological development, must somehow be financed. Weapons are costly, a army maintenance too. Likewise, maintaining political status in international relations is also costly. The economic crisis in the western part of the world has led to a decline in US military



expenditures, which has resulted in a decline in power domination over China, Russia and India. The crash of stock exchanges in Southeast Asia in 1996-97 has left consequences on all of the countries in this part of the world, excluding China and South Korea, who have in a certain period been allocating less for military purposes, which was mostly reflected in the case of Taiwan. The economic turmoil in Turkey in the late 1990s and the latter inflation in 2000 affected the level of military spending in a sense that even at 2015 they did not reach the level of spending from 1998. Iran was in a similar situation, and due to the long inflation period 2010-15 they had to spend less on armament and modernization of armed forces. Certainly the most violent example of the link between economy and armament are events from the Soviet Union of the 1980s. Poorly assessing its own potential, Soviet leadership joined the "arms race" with the United States, which has exhausted the national economy to such an extent that it has become one of the main causes of the disintegration of the country. The Soviet Union was not able to counter the US, as its participation in the global economy was at that time less than 5%, and the US over 22%. In addition, the United States could, through NATO, share costs and successfully mobilize the resources of allies, among which were the world's largest economies.

#### 4. Conclusions

Looking at international relations from the realist perspective in this paper, we explained why economic power is important. Undoubtedly, economic power is one of the key components of national security. Without a adequate economic power, there can be no national security. Economic power is necessary in order to develop the military power of the state, but also to increase political power. One of the basic functions of the state is to make life easier for its citizens, to protect their dignity and to provide them with the necessary conditions for each type of development. Satisfied citizens, proud of their country and aware of the fact that system they live in protects them, will support the ambitions of the state leadership and work to meet national interests. And without the fulfillment of national interests, there cannot be talk of ensuring national security. Economic power of the country, therefore, stipulate other forms of power. Although, it should be emphasized again, that there cannot be the growth of economic potentials without political influence and military means with which wealth can be defended.

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## THE LINKAGES BETWEEN SECURITY ENVIRONMENT AND FOREIGN DIRECT INVESTMENTS: THE CASE OF SERBIA

**Abstract:** The security environment can be considered as a prerequisite for taking into account all other measures to attract foreign direct investments (FDI). Increasing the security level of the country has a positive effect on attracting FDI and economic development generally. On the other hand there is a short term negative effect in terms of reducing investments in other areas of the economy, especially in countries in transition such as Serbia. However, in the long term increasing the level of security leads to investment in infrastructure, which is significant for foreign investors and the business environment as a whole. The main goal of the paper is to point out that it is not important only to attract FDI and to increase the exports, but also to maximize the contribution from exports to the national added value that is to integrate local economy so that citizens of that country can feel the benefits of a net foreign exchange earnings effect. Creating a competitive security environment is one of the ways to achieve this goal, keeping the foreign investor away from going to another country in a region that offers the same or similar investment conditions.

**Key words:** security environment, foreign direct investments, exports, net foreign exchange earnings

### 1. Introduction

The interdependence of the country's security and economic development is the topic of many theoretical discussions both in the world and in our country. Economic stability is essential for security, but on the other hand, the security of the country is the basis for economic growth and development of the country, both from the point of domestic and foreign economic agents. For more than two decades, foreign direct investment (FDI) has played a significant role in achieving stable and long-term development, especially when it comes to transitional and developing countries. The level of security of a country has a significant impact on the risk of investment in that country. Therefore, security and economic growth are in direct relation, as they influence the creation of an environment that is suitable for investment. Security is essential in order for investors to preserve their assets and make profits in the long run, and because of this, a well-organized and secure environment will more easily attract investments from an environment in which the level of security is not at an acceptable level.

The impact of FDI on the economy of the host country is multiple and includes increasing employment and exports, the volume of production of services, serving to cover the current deficit, bringing new knowledge and technologies, and many others. For Serbia as a small open economy, which has negligible accumulation of capital and low domestic savings, the only serious source of funds is foreign direct investment. In the analysis of the destination of their investments a broad, foreign investors primarily analyze the economic indicators, i.e. how much profit will be made by such investments, and the assessment of profitability includes the political risk of the host country.

The analysis contains three parts and concluding observations. Time of analysis is limited to the period from the beginning of the transition to the end of 2016. The first part presents the changed security environment, both at global, regional and national levels. Some of the key challenges, threats and risks of

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Serbia's security were highlighted, which the state should respond to by empowering state institutions and corporate access to security. The second part explains the link between the security risks of the country and foreign direct investment inflows. As one of the many security risks we have identified the risk of political stability, expressed by the index of political stability and the absence of violence (terrorism). We will also show that the FDI as share of GDP during the transition period varies considerably and shows a pronounced sensitivity to the macroeconomic and political aspect of the stability of the current investment environment. In the third part we are highlighting the economic effects of FDI on the economy of Serbia. We will try to find the link between investment in security and the increase in the economic effects of FDI, and therefore the increase in the competitiveness of the Serbian economy. Conclusions on linkages will be summarized in concluding observations.

## 2. Serbia in Transformed Security Environment

The circumstances that contribute to the increasing number of security risks at the global level are above all great differences in the level of economic and cultural development resulting in poverty and social vulnerability of a part of the population, which causes the occurrence of negative demographic and psycho-social phenomena. Regional and local conflicts, ethnic and religious extremism, terrorism, organized crime, the proliferation of weapons of mass destruction and illegal migration, climate change and the increasingly pronounced deficit of energy resources endanger the stability of certain countries and entire regions, as well as global security. The essential feature of these challenges, risks and threats is that they become increasingly unpredictable, asymmetrical and have a transnational character. The transnational and asymmetrical character of the contemporary challenges, risks and threats to security have contributed to the fact that no country is able to solve by itself the ever more complex problems of preserving and strengthening national security. Therefore, security in contemporary conditions is increasingly being looked at globally, and national security is increasingly linked to the state of security in the near and further environment (Dragišić, 2011).

In the conditions of the globalized economy, the macroeconomic consequences of significant disruptions in the functioning of financial markets in the world also reflect on the global security. The consequences of the global economic crisis can lead to the overconfidence of the intrinsic interests in the system of international economic relations and delaying the resolution of the priorities of global security, to actualize the danger of social unrest and contribute to the collapse of internal stability in certain countries. In addition, attempts to give legitimacy to the creation of new state structures in the territories of sovereign states are undermining the existing international legal order and significantly jeopardizing the security in the world generally.

The security in the region of Southeast Europe is characterized by prominent national, religious and political extremism and the destruction of cultural heritage which in addition to the existing economic and social problems and insufficiently built state institutions makes it difficult for the process of faster and more successful democratic transition of the countries in the region. The geostrategic position of Southeast Europe through which the energy and communication directions are passing, significantly and directly affects the security of the European countries. Combating the interests of states in the use of transit routes and resource management can lead to the creation of regional crises and threatening the security and stability of the countries of Southeast Europe.

In April 2009, the Serbian government adopted the National Security Strategy of the Republic of Serbia, which presents an assessment of security challenges, risks and threats to the Republic of Serbia. The National Security Strategy of Serbia pointed to a wide range of risks and threats to security, some of which are predictable and some unpredictable. Based on defined challenges, risks and threats, it is possible to determine measures to counter the estimated risks and their bearers, as well as define the security policy of the Republic of Serbia.

The promotion of democracy in the region of the Balkans and the acceptance of democratic values, aspirations for economic and social stability by all countries in the region considers the National Security Strategy as the foundation on which peace and prosperity can be built in the region. However, inherited problems from the past, historical contradictions, as well as the consequences of the conflict of nations and states in the region and especially in the Balkans, in the recent history still affect the security situation today. The Strategy takes a cooperative approach to security as an optimal model for preserving regional stability. The cooperative approach is reflected in the joint efforts of the countries of the region to prevent the emergence of conflicts (Shaw, 2000).

### 2.1. Risks and threats to the security of the Republic of Serbia

Challenges, risks and threats to security at the global, regional and national levels are constantly being multiplied and changing in character, intensity and forms of manifestation. The specificity of these security challenges, risks and threats reduces the possibility of their timely detection and preventive action. A good definition of the security challenges, risks and threats that endanger our society and state is the first and most important step in establishing a functional and efficient national security system.

The Republic of Serbia faces significant challenges, risks and threats that jeopardize its security. The basic threat to security is the attempt to secede the territory of the Autonomous Province of Kosovo and Metohija. The security situation in Kosovo and Metohija is burdened with ethnically motivated acts of violence that contribute to the creation of uncertainty and fear among members of the Serbian people and minority ethnic communities. The Republic of Serbia, like other countries in the region, faces terrorism, various forms of organized crime, corruption, illegal trafficking in narcotic drugs, human trafficking and financial and high-tech crime.

The problems of the economic development of the Republic of Serbia due to many years of economic sanctions and destruction of vital objects of economic and transport infrastructure during the NATO bombing have resulted in numerous unfavorable social phenomena, which in their overall effect are an important factor of risk in the process of transition. The high unemployment rate and the poverty of a significant proportion of the population, with the presence of a large number of refugees are potential hot spots of serious social and political tensions that can produce a high-risk state.

Economic development is the basis of the security of every society, and the problems that arise in this area, inevitably lead to the endangerment of social stability and the creation of potential security problems. A special problem is energy security, because the Republic of Serbia loses its independence in that area and depends to a large extent on foreign factors. The issue of expelled, evaded, internally displaced and missing people is an issue that poses a challenge to the internal security of the Republic of Serbia, but also greatly burdens the relations of the Republic of Serbia with neighboring countries. These are just some of the many risks and threats to the security of Serbia that the state must face, in order to achieve further economic growth and development.

### 3. Analysis of FDI Inflows and Effects of Security Risks on FDI Dynamics in Serbia

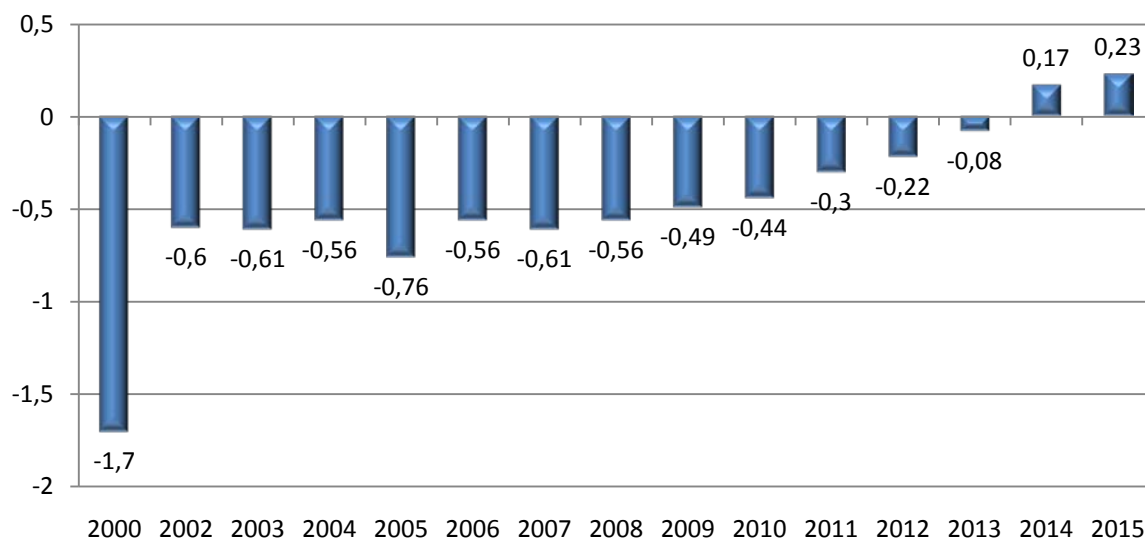
The analysis of the FDI inflow into Serbia during the transition will be divided into two sub periods: the first from 2001 to 2008 and the second from 2009 to 2016. The first two years of transition, 2001 and 2002, represent a period of market adjustment to liberal business conditions that is the opening of borders for foreign goods, services, and capital. From 2001 to 2008 the inflow of foreign investments grew with the exception of 2004 when it fell by about 35%. In this period, the first effects of the measures taken in 2001 and 2002 are manifested since the achieved macroeconomic stabilization with changes in the legislation, primarily in the area of foreign investments, resulted in improvement of the investment climate in the country.

Table 1: FDI Inflows in Serbia, 2001-2016, millions of dollars

Year	2001	2002	2003	2004	2005	2006	2007	2008	Total
FDI Inflow	177,4	490,6	1.467,0	958,5	1.577,0	4.255,7	4.405,9	3.971,9	17.304,0
% change	242,5	176,5	199,0	-34,7	64,5	169,9	3,5	-9,9	
Year	2009	2010	2011	2012	2013	2014	2015	2016	Total
FDI Inflow	2.896,1	1.686,1	4.932,3	1.298,6	2.052,5	1.996,1	2.346,6	2.298,8	19.507,1
% change	-27,1	-41,8	192,5	-73,7	58,1	-2,7	17,6	-2,0	

Source: UNCTAD (2018)

The largest recorded annual inflow of foreign investments in this period was recorded in 2006 in the amount of about \$ 4.2 billion, primarily due to the sale of the mobile operator Mobtel to Norwegian Telenor. The FDI inflow has significantly decreased since 2008, primarily as a result of the global economic crisis. However, not only the global economic crisis is responsible for fluctuations in the inflow of investments. The political instability in the country, the lack of effective institutions and the rule of law are just some of the basic risk factors that foreign investors took into account when deciding on investing in Serbia.

Figure 1. Serbia: Political stability index<sup>3</sup>

Source: World Bank (2018)

From Figure 1 we can conclude that political stability in Serbia in the first transition period was not at a satisfactory level, and under such conditions large foreign capital came mainly to those sectors where profits were guaranteed or where the markets were privatized. In other words during that period the capital was solely invested through privatization. A somewhat smaller amount of this inflow of investments was

<sup>3</sup>The index of Political Stability and Absence of Violence/Terrorism measures perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically-motivated violence and terrorism. The index is an average of several other indexes from the Economist Intelligence Unit, the World Economic Forum, and the Political Risk Services, among others. The values of the index: -2.5 weak; 2.5 strong.

related to the acquisition of banks, while the share of greenfield investments was negligible (Mijatović, 2005). Only in the period from 2001 to 2004, 1382 companies in Serbia were privatized, which on average amounted to two privatized companies per one working day (National Bank of Serbia, 2017).

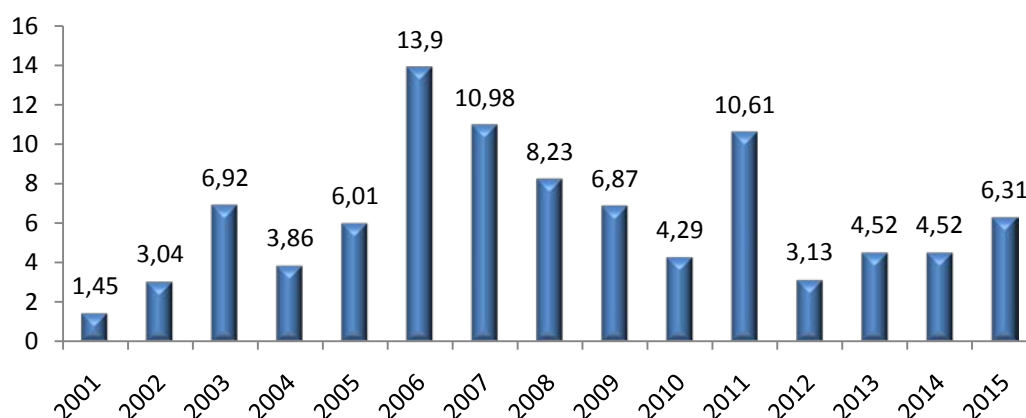
Since 2008, there has been a decline in the inflow of foreign direct investments. That year 3.9 billion dollars of foreign capital is received, which is about 10% less than in the previous year. The most important foreign investment in this period, worth EUR 940 million, was the arrival of FIAT on the Serbian market that is the establishment of FCA Srbijad.o.o. based in Kragujevac. The newly created company is a joint venture of FIAT Group Automobiles (FGA) and the Government of the Republic of Serbia, with FIAT owning 67% and the Republic of Serbia remaining 33% of the ownership (Ekapija, 2017).

Already in 2009, the slowdown in investment inflow began and in 2010 the FDI in Serbia amounted to 1.7 billion dollars, which is approximately the level of 2005. The fall in the inflow of investments in Serbia in the post-2008 period may be somewhat explained by the global economic crisis, but we must not lose sight of other factors, such as a poor macroeconomic, institutional and political environment, which enabled non-transparent privatizations.

In 2011, there is an increase in FDI inflows of 192.5%, which is largely due to the sale of the Delta Maxi trade chain to the Belgian Delhaize. However, in 2012 the FDI inflow fell by about 74%, and such a low level of inflow was primarily caused by political instability in the country, by calling elections at all levels and later by the dismissal of the president and the ruling coalition. However, in 2013, new \$ 2 billion arrived in Serbia, which is 58% more foreign capital than in 2012.

If we take a look at the FDI as share of GDP in the period from 2001 to 2016, we will see that it has varied considerably and has shown a pronounced sensitivity to the macroeconomic and political aspect of the stability of the current investment environment. This statement is confirmed by data from Figure 2. For comparison, 2003 and 2006 is characterized by high share of FDI in GDP (6.9% and 13.9%, respectively), which was primarily due to the high permeability of the investment environment for inflow, observed according to the degree of economic and the political risk of investing. The decline in the share recorded in 2004 to 3.9% in relation to 2003 is due to pronounced political instability, as well as the pronounced inflationary tendencies, as inflation increased from 7.8% in 2003 to 13.7% in 2004 (Trading Economics 2017).

Figure 2. Serbia - FDI, percent of GDP



Source: World Bank (2017)

The decline in FDI share in GDP that can be tracked from 2007 to 2010 is due to a sensible acceleration of inflation and ambient burden to address political issues. The global financial and economic crisis which

began to show its first signs of Serbian economy at the end of 2008 caused a decline in economic activity and a slowdown in FDI inflows. The worsening of global financial conditions resulted in a decrease in the value FDI inflows to Serbia and a proportionate decrease in their share in GDP in 2009 and 2010 (6.9% and 4.3%, respectively). In other words, the investment environment was under the strong influence of the global economic and financial crisis, which caused a greater degree of investor cautiousness in making investment decisions, which led to an increase in the instability of the exchange rate and the strengthening of inflationary pressure.

Since the economic growth model based on the growth of domestic consumption and imports, which the Serbian economy followed in the first transition period, proved unsustainable with the first blows of the global financial and economic crisis, in 2010 the Serbian economy began the transition to a new growth model. An effective transition to the new model of economic growth is based on the growth of exports and investments. The continuity of the decline in participation was interrupted in 2011, when this share was increased to 10.6%, in order to fall as early as next year in 2012 to almost the same level as 2002, primarily due to political instability. Since then a proportionate increase in political stability in the country has also led to an increase in FDI participation in the country's GDP.

In analyzing the cost-effectiveness of investments, in addition to economic and financial risks, political risk is one of the basic elements to be taken into account. Political risk is often defined as (non)stability of the government and the presence or lack of an independent judicial and legal system. Also, the country's relationship with neighbors and other countries is very important for political risk. The smaller the political risk the greater the security in the country, and therefore the higher inflow of foreign capital (Karaulac, 2009a).

To make Serbia a more attractive destination for FDI, it is necessary first of all to reduce the political risk of the country. As long as Serbia is in a high-risk zone, it will be difficult to attract foreign investors, which in turn will slow down the growth of our economy. The fact is that Serbia has a problem with Kosovo and that this issue has a significant impact on the assessment of political risk and the stability of the country. Serbia has done a lot about reducing the political risk of the country, which is confirmed by the index of political stability. Entering the European Union is one of the possible solutions to stabilization, because Serbia will have to strengthen its own national security system that will be able to provide Serbs with full security, as only safe and stable countries can be EU members (Dragišić, 2013).

Standard and Poor's has increased in 2017 the credit rating of Serbia for long-term borrowing in domestic and foreign currency from "BB-" to "BB" with stable prospects for its further increase (National Bank of Serbia, 2018). Observed from the point of view of the country's risk, as well as from the point of view of a serious political risk, credit rating is an important indicator of the level of trust in the functioning of the government of a state. The decision of the rating agency Standard and Poor's on correcting the credit rating for long-term borrowing is another confirmation of the improvement of the macroeconomic performance and investment environment of Serbia. The agency estimates that GDP will continue to grow in the period from 2018 to 2020, and that growth will be based primarily on the inflow of foreign direct investment and higher private consumption, which will be encouraged by increased employment and earnings.

#### **4. Investing in Security as an Indirect Factor in increasing the Economic Effects of Foreign Direct Investment**

Creating an investment environment that will provide absorbing maximum benefits from the FDI inflows is a basic task for every country, especially for developing and transitional countries. Therefore, the challenge for governments of transition countries lies in the creation of such strategies and policies that maximize positive and minimize possible negative effects of FDI.

Technologically low intensity with devastated economy and poor infrastructure Serbia made a significant FDI inflow in the first years of transition, but mostly through privatization, which involved layoffs, while



brownfield and greenfield investments represented more an exception than a rule. This resulted in none or negative effect on local economic development. Foreign investment subsidies were the largest in the region, and FDI realized through privatization mostly had a “maquiladora effect”<sup>4</sup> on the domestic market rather than a “spillover effect”.

Numerous research has confirmed that Greenfield investments far more strongly stimulate local economic development from investing through brownfield investments, as they involve investing in brand new businesses that create opportunities for new jobs, the flow of technology and knowledge. It is very important for Serbia to increase the inflow of greenfield investments, with selective targeting of branches that can contribute to the exports increase. Greenfield investments offer greater opportunities to transfer foreign technology to the domestic economy, and open up ways to spill advanced technologies into other segments of the domestic economy.

Lall and Narula conclude that foreign direct investment can lead to an increase in productivity and value of exports but this is not the rule that will necessarily produce an increase in the competitiveness of the domestic economy (Lall and Narula, 2004). In other words, spillover effects are not guaranteed and foreign direct investment will not always have a positive impact on economic development. This has been proven by examples of many Asian countries, Mexico and other Latin American countries, and Serbia so far as well, where FDI has not contributed to their economic development but foreign investors have built their business strategy to utilize cheap high qualified labor force and maintain a low level of wages.

In order to transfer advanced technology from FDI domestic enterprises must be able to adopt superior FDI technology. It is necessary that local companies have key capabilities to meet international standards in production and are able to meet corporate requirements regarding continuity in production in order to deepen the relationship between local enterprises and foreign affiliates. Most Serbian companies are not able to absorb knowledge and technology from foreign direct investors because they are technologically inferior to them. As a result, the state should support local companies in improving technological quality in order to increase the level of international competitiveness in sophisticated products and services.

Research has shown that developing countries investing in the security of the country reduces investments in other areas of the economy in short-term. However, in the long term, these investments bring positive results to such an economy (Karaulac, 2009b). By raising the level of security comes investments in all forms of infrastructure, from physical to technological, which is significant for both foreign investors and the domestic business sector. We believe that if the state invests in increasing the level of security of the country, it can indirectly influence the increase in the development effects of FDI, not only by increasing the security and protection of FDI, but primarily by reducing the technological discrepancy on the FDI - local enterprise line. By raising the technological infrastructure in Serbia, companies will be able to accept and impute new knowledge and advanced technology, and thus profit from the integration of FDI with domestic economy.

## 5. Conclusion

Foreign direct investment has a major impact on the development of emerging markets. It is indisputable that in the era of global interdependence the security of the country and the FDI are connected. Security threats threaten the FDI inflow, while the absence of FDI as the main driver of development leads to the emergence of security threats - unemployment, poverty, hunger, illness, political instability, conflict. As long as the two countries, the host and the investor, enjoy the aggregate economic gains from FDI as there would be less chances for the outbreak of conflicts between them.

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<sup>4</sup>*Maquiladora* is the name for the factories run by foreign company in Mexico (mostly U.S.) to take advantage of cheap labor and lax regulation.

Serbia has passed through a period of dramatic change, managing a rapidly evolving political and economic environment. Today, Serbia is a candidate country for the European Union membership, reflecting the significant progress made so far in the structural and institutional reforms. The global financial crisis exposed the structural weaknesses in Serbia's economic growth model and prompted the need for fiscal consolidation and accelerating the unfinished transition to market economy and to the more stable security environment.

In previous quarters we have seen that FDI inflows and FDI share in GDP are directly related to threats and security risks. As one of the most significant threats to Serbia's security we have set aside political instability. The political instability in the country, the lack of efficient institutions and the rule of law are just some of the basic risk factors that foreign investors took into account when deciding on investing in Serbia. After 2012 Serbia significantly increased investor confidence in improving political stability and thus gained the role of an anchor of stability throughout the region. Instead of ethnic disputes and tensions over the past Serbia has to turn to more constructive foreign policy and foreign trade relations.

For Serbia, it is very important to increase the inflow of greenfield investments, which open up ways to spillover effect into other segments of the domestic economy. We believe that investing in increasing the level of security of the country can indirectly influence the increase in the development impact of FDI, not only by increasing the security and protection of FDI, and hence the longer retention in the country, but primarily by reducing the technological discrepancy on the FDI - local enterprise line. With the reduction of threats and security risks, investment in the upgrading of the technological infrastructure in Serbia will be undertaken, whereby companies will be able to accept and impute new knowledge and advanced technology, thereby benefiting from the presence of FDI, or the integration of FDI with domestic economy.

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## CORPORATE SOCIAL RESPONSIBILITY FOR SUSTAINABLE BUSINESS: A LITERATURE OVERVIEW AND MULTINATIONAL ENTERPRISES CASE STUDIES

**Abstract:** Many multinational enterprises, regardless of their core business, implemented the Corporate Social Responsibility (CSR) concept and demonstrated their commitment to sustainable development. Those activities were internationally supported by International Organization for Standardization (ISO) which gave guidance on how businesses and organizations can operate in a socially responsible way (published in standard ISO 26000:2010). In this paper, we provided a literature overview related to the CSR concept and sustainable development, along with analyses of several multinational enterprises' activities through case studies. Participation in CSR programmes is very important for enterprises because it enables them to add real value to their business. Due to their scope, it can be said that CSR and sustainability are global phenomena which can be interpreted as very useful tool in the hands of managers that helps them to improve a reputation of their enterprises, to avoid negative effects, to meet social needs etc. As it will be seen in the case studies presented in this paper, usage of those two concepts may also lead to the new product development and promote the consumption of resources without affecting the quality of life.

**Keywords:** CSR; sustainability; enterprises; case study;

### 1. Introduction

Still, many organizations are only guided by their profit interests in making their decisions and they do not take into account whether it will be enough resources for the generations that will come after us. Many of them, do not even think about health and the welfare of society. One of things that has been happening last years is a change of consciousness and creation of business politics that take into consideration Corporate Social Responsibility (CSR) and sustainable development concepts. Because of the importance of this issue and the need for its regulation at the international level, the International Organization for Standardization (ISO) developed and published standard ISO 26000:2010 which provides guidance on how businesses and organizations can act in "an ethical and transparent way that contributes to the health and welfare of society". Also, International Workshop Agreement (IWA) number 26 during last year (2017) was published on how to use ISO 26000:2010 in organizations that have implemented management system.

The objective of the current study was to explore literature and to give a review about the meaning of the terms "Corporate Social Responsibility" and "sustainable development". This paper is divided into 4 logical blocks. The first part is the Introduction which announces the topic. The second part introduces the term "sustainable development" and briefly gives the origin of this concept and its fundamental dimensions. Probably, roughly ten years ago, no one would ever have thought that enterprises will have Chief Sustainability Officers in their organization. The main part of this paper gives a brief overview of current trends in the Corporate Social Responsibility area which is described through case studies of Henkel, OSRAM and Airbus. The affect is on the multinational enterprises that have a long business tradition, a large number of employees and that are representing the leaders in the area in which they operate. The importance of CSR and sustainability is accentuated. Finally, there is conclusion section. The paper should be written using MS Word for Windows. The length of work should not be more than 10 pages including text, diagrams, tables, references, and appendices.

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## 2. Sustainable Development: Origin of the Concept and Fundamental Dimensions

During the autumn of 1983, the United Nations was formed by the World Commission on Environment and Development. Pursuant to UN General Assembly Resolution 38/161, the then Secretary-General of the United Nations, appointed Mrs Gro Harlem Brundtland (then the leader of the Norwegian Labor Party) as President and Doctor Mansour Khalid (former Foreign Minister of Sudan) as Deputy Chairman of the Commission. The two of them were appointed together by the remaining members of the commission. The Commission worked as an independent body (Brundtland, 1987, pp. 290-291), and in paragraph 27 of its report stated that "humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs". This represents the original definition of sustainable development, and to date no political or scientific agreement has been reached on the definition of sustainable development (Holden, et al., 2014, p. 130).

The concept of sustainable development was formally recognized at the international level only in 1992, at the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil (Gudmundsson, et al., 2016, p. 15). Ten years after the Rio conference, a summit on the sustainable development of the Earth in Johannesburg in 2002 followed, and after 20 years, a new conference on sustainable development in Rio (better known as Rio + 20), etc.

In 2015, the UN defined 17 sustainable development goals under the sustainable development program by 2030. The previous, millennium development goals consisted of eight goals, for which all UN member states, in September 2000, agreed to try to achieve by 2015 (UNDP, 2018).

Figure 1 represents a common visual representation of sustainable development, which is of ten associated with the Brundtland model of development. According to this comprehensive model, in order to achieve sustainable development, progress is needed in all three dimensions (social, economic and ecological dimension) (Gudmundsson, et al., 2016, p. 33).

Figure 1: Common representation of sustainable development



The importance of sustainability is also reflected in the fact that many multinational companies have Chief Sustainability Officers (CSOs) who are responsible for formulating and implementing an enterprise's sustainability strategy. In recent years, the number of appointments of these directors has steadily grown, and at the moment it is worried about the growth of their number, but the companies continued to open and fill positions within these units (Miller & Serafeim, 2015).

## 3. Corporate Social Responsibility: A Brief Overview of Current Trends

In spite of the recent entanglement of corporate social responsibility (CSR) activities in Europe, CSR has traditionally been seen as a phenomenon that is unique to the US, a phenomenon that reflects the

American tradition of participation, self-help and small or at least in direct government (Matten & Moon, 2005, p. 335).

In Europe, the concept of CSR has gained importance so much that even Martin Wolf, the chief economic columnist of the Financial Times, is known for his skepticism, commented that "CSR is an idea whose time has come" (Matten & Moon, 2005, p. 335).

Historically, the key year for the development of CSR awareness in Europe was 1995, when only two years after the invitation of the European Commission's President Jacques Delors addressed to European companies, 20 business leaders adopted the European Business Declaration against Social Exclusion. In the course of 1996, the Europe-a Business Network for Social Cohesion was created, which changed its name to CSR Europe. Its task was to enable businessmen to exchange experiences, develop solutions and engage in smart political dialogue with the EU in order to improve social responsibility within their enterprises and beyond (CSR Europe, 2018).

Today, CSR Europe is the leading European corporate social responsibility network, which, through a network of 48 corporate members and 41 national partner organizations, gathers over 10,000 companies and acts as a platform for those companies that want to improve sustainable growth and positive contributions to society (CSR Europe, 2018).

The intentions and development of the perceptions of corporate governance reform in the European Union are best seen from three so-called. The "Green Paper" published by the European Commission in 2003, 2010 and 2011, which resulted in the adoption of the Corporate Governance Action Plan in 2012. This plan has proposed 14 individual initiatives related to corporate governance and Company law. Many of these initiatives are aimed at improving the requirements for publishing or talking about areas of corporate law harmonization (CFA, 2016, pp. 9-11).

The evolution of CSR awareness also reflected on the definition of socially responsible business. In the European Union, it was promoted for the first time in 2001 as one of the new business policies through the adoption by the European Commission of the Green Paper (BIG, 2014, p. 4). Then, the European Commission defined socially responsible business as "the concept by which companies integrate social and environmental issues into their business operations and in their relationships with stakeholders, on a voluntary basis" (EC, 2011, p. 3). Following the EU's Corporate Social Responsibility Strategy for 2011-2014, the European Commission redefined CSR as "the responsibility of the enterprise for their impact on society" (EC, 2011, p. 6). Following this definition, the following clarification is given: "In order to fully fulfill their social responsibility, enterprises need to have a functional process for integrating social, environmental, ethical and human issues into their business activities and basic strategy in close cooperation with their stakeholders" (EC, 2011, p. 6).

The term "Corporate Social Responsibility" (CSR) is much more familiar to people than "social responsibility", due to the fact that in the past attention was focused primarily on business. The belief that social responsibility is applicable to all organizations, and not just to those of the business world, has emerged because these organizations have recognized that they also have responsibilities for contributing to sustainable development (ISO 26000, 2011, p. 13).

In Serbia, the most commonly encountered is the original English term "Corporate Social Responsibility", or its abbreviated CSR. There are still many disagreements and discussions about defining the concept itself, as well as the way it is implemented, so that the terms "corporate responsibility", "corporate sustainability", "corporate citizenship" or "creating shared value" are also in use (Forum, 2014, p. 8).

#### **4. Knowledge Management through Selected CSR Case Studies**

4.1 The Henkel Case Study: Quality and Environment as Key Topics of Corporate Social Responsibility



In 1876, Henkel founded Fritz Henkel, and today it is a shareholding company in which the majority are held by the heirs of the founders. The company is active in three business sectors:

1. Adhesive Technologies,
2. Beauty Care, and
3. Laundry & Home Care.

Henkel employs more than 53,000 employees worldwide, and has more than 85% of employees outside of Germany, making it one of the most international German companies. In the 2017 business year, it generated a turnover of 20 billion euros, as well as an operating profit of 3.5 billion euros (Henkel, 2018).

The company's first product was a laundry detergent based on sodium silicate, called Universal-Waschmittel (Universal Detergent). The first self-contained detergent for laundry appeared in 1907 under the name Persil, and to date it has remained the most famous brand.

From the beginning of the industrial revolution, Henkel has faced environmental problems. From the very beginning, the surrounding farmers had problems with polluted air. In the late fifties of the last century, surfactants (the main chemical component of detergent) created a large amount of foam that covered the rivers and lakes. This problem was the main trigger for the development of substitute ingredients. In the seventies, the fashion hit was synthetic textiles, which required that the washing temperatures be reduced and that the detergent ingredients be adjusted to such reduced temperatures. This led to the beginning of the use of enzymes as the main ingredient, since they were effective at lower temperatures. This resulted in halving energy consumption after washing. From the very beginning, Henkel emphasized the environmental aspect of its advertising. Thus, the challenge was also the necessity of replacing phosphate which was the detergent ingredient since they led to the enrichment of water with nutrients, which resulted in an increase in aquatic plants, which in turn increased the turbidity and color of water, and so on. Accordingly, since 1986, Persil Detergent is the first detergent that no longer has phosphates in its composition, demonstrating how much sustainability is an important part of the heritage of the brand itself. Finally, the detergent volume (transport) and packaging (material and waste) are important aspects of optimizing the detergent according to environmental requirements (Loew, et al., 2009, p. 13).

Henkel continuously improves the quality of its detergents. One member of the board of directors described the relationship between brand quality and innovation in the following way: "Persil remains Persil, because Persil does not remain Persil." This means that only during the last 30 years the performance of the washing powder has been dramatically improved while at the same time the inherent impact on the environment has been significantly reduced. Due to the continuous improvement of the powder formula, washing gels, the amount of detergent, energy and the required amount of water after one wash, it continuously decreases. This development is the result of several innovative steps. The Detergent Research and Detergent Department is continuously working to improve the quality of these products. In order to produce a successful product, it is necessary to consider the demand on the market and the behavior of competitors. That's why Henkel has established strong coordination between marketing departments and product development (Loew, et al., 2009, p. 14).

Henkel published its first environmental report in 1992, and since then it has been doing so every year. Starting in 2000, environmental reporting has been transformed into sustainability reporting. In the meantime, a sustainability council has been established, and it coordinates global action in cooperation with corporate departments of its regional and national companies. Henkel has established an appropriate code of conduct and standards that apply throughout the company. They relate to leadership, protection, security and health and procurement.

For this company, sustainability has a strategic dimension. That's why all business activities across the entire value chain are focused on the challenges of sustainable business development of this company. Henkel has grouped these challenges of sustainable development into six areas:

1. Energy and climate,
2. Water and wastewater,



3. Materials and waste,
4. Health and safety,
5. Social progress, and
6. Performance.

The first three areas describe the way in which the ecological footprint is to be reduced, while the last three describe how this company wants to create "more value" for its customers and consumers.

In order to achieve the defined goal to be three times more efficient by 2030, this company calculated that its efficiency must improve on average from 5 to 6 per year on an annual basis. The goals for the period from 2011 to 2015 have been achieved, improving the values that it creates and the environmental footprint of up to 38%, with an increase in efficiency from 42% by 2016. On the way to achieving its long-term goal named "Factor 3", Henkel wants to improve performance in all these areas in the coming years as well. For this reason, he set himself concrete specific targets for the medium term by 2020 (compared to 2010) (Henkel Serbia, 2018).

This company has a tradition of social engagement that dates back to the time of its founders, Fritz Henkel, and is deeply embedded in its corporate values. Together with employees, retirees, customers and consumers, Henkel and Fritz Henkel Stiftung support sustainable social development projects around the world. They support activities in the field of social needs, education and science, recreation and health, arts and culture and the environment. Henkel's activities are organized around four basic elements (Henkel Serbia, 2018):

1. Corporate volunteering: voluntary social engagement of employees and pensioners,
2. Social Partnerships: Henkel as a company promotes social projects around the world,
- 3rd brand engagement: Henkel's brands support social projects around the world, and
4. Assistance in emergency situations: immediate assistance to people affected by a natural disaster.

For example, in 2008, this company globally marked the 10th anniversary of the MIT initiative Make Impact on Tomorrow, in which numerous volunteer projects of employees and pensioners around the world are being implemented (Henkel, 2015).

#### 4.2 The Three-Pillar Model of OSRAM for Sustainable Business

OSRAM is one of the world's two leading manufacturers of light bulbs, with a tradition over a century long. The company is active in four business sectors:

1. Opto Semiconductors,
2. Specialty Lighting,
3. Digital Systems, and
4. Lighting Solutions.

At the end of 2017 OSRAM employed about 26,400 people (compared to about 24,600 employees in the previous year), with the largest number of employees employed by Opto Semiconductors (about 12600 employees, compared to 10500 in the previous year) (OSRAM, 2017, p. 3).

The sustainability approach that this company uses is known as the "three-pillar model", which also takes into account economic, environmental and social aspects.

The commitment of this company to the environment can be traced back to the early beginnings of this company. Even then, the lamps produced by OSRAM were considered much more effective than other solutions of the time. In addition, since 1960, OSRAM's plants in Augsburg and Berlin have used glass from broken bulbs as secondary raw materials. Also, in 1975, in glasshouses in Augsburg, all glass furnaces moved from natural gas to natural gas, reducing the annual sulfur dioxide emissions by 77%. In the same year, the filtration system for the lead glass furnace in the glassware in Berlin was put into operation, which resulted in a 99% reduction in dust and lead emissions. During 1981, a factory for the recycling of molybdenum, and so on, was commissioned at a factory in Berlin. For merits in the field of sustainability, only in 2016, OSRAM received the following awards and recognitions (OSRAM, 2018):

1. OSRAM's factory in Eichstätt received the "BHKW of the year 2015" award for its power plant and power plant. The German association for cogenerative production of heat and power awarded this award as an excellent and revolutionary example of construction.
2. OSRAM was again presented with the Bronze Class Award awarded by RobecoSAM, a Sustainability Investment Company based in Zurich, and included in the RobecoSAM's 2016 Sustainability Yearbook.
3. Once again, it is confirmed as a member of the FTSE4Good Index series (companies are classified in the FTSE4Good Index series based on stringent criteria related to the environment, society and management, or demonstrated ESG practices).
4. MSCI, a global provider of investment solutions, has included OSRAM in its Global Environmental Index. This index is composed of securities of those companies that earn at least 50% of revenues from products and services that are environmentally friendly.
5. It is again included in the world-known Dow Jones Sustainability Register. After a detailed analysis of the various sustainability criteria, OSRAM is best ranked within the Electrical Components & Equipment (ELQ) industry. The famous DJSI assessment was introduced in 1999, and is based on the ESG database of RobecoSAM and includes over 600 ESG indicators monitored by over 4,000 global companies.
6. Re-included in the STOXX ESG Leaders index. This index serves to represent companies in terms of environmental criteria, society and governance. The database is provided by Sustainalytics. OSRAM has introduced the Code of Conduct for Suppliers, so it is advantageous for those suppliers that are certified according to the ISO 14001 standard, especially those directly embedded in the product (OSRAM, 2017, p. 17). What is particularly characteristic is that this company has certified all its factories according to the ISO 14001 standard in 2008. At the end of 2006, this certificate had 48 of the 52 production sites at the time. In 1996, all OSRAM factories in Germany and one factory in Molsheim (France) were certified according to this standard (OSRAM, 2018). On the other hand, the second edition of the ISO 14001 standard appeared in 2004, replacing the initial edition of 1996. The latest edition of this standard is from 2015 (ISO, 2015). It is very easy to see that this company is very much dedicated to the standards that deal with this area.

The holistic approach to sustainability is complemented by the social aspect. This company considers itself a responsible member of society. It sees itself as a socially responsible employer, and takes measures to promote a healthy and safe working environment. This also applies to education and training, diverse and balanced work and family life. Even in those periods when restructuring was necessary, they were aware of the responsibilities they had towards employees in relation to the measures to be taken (OSRAM, 2018). In areas where there is a greater risk of modern slavery, including forced and child labor, OSRAM has taken additional preventive measures. Thus, the manufacturing site in Chennai (India) was certified in accordance with the internationally recognized SA 8000 social standard. This standard has been defined by the non-governmental organization Social Accountability International (SAI) and includes various measures such as the prohibition of forced and child labor (OSRAM, 2017, p.).

OSRAM's annual sustainability statement for 2017 is entitled "Light is sustainable" and presents all the performances of OSRAM Licht AG (OSRAM).

Within the site dedicated to corporate citizens, on the company's website, examples of many initiatives related to education, science, art and culture, as well as examples of support for social and humanitarian projects can be found. Employees of OSRAM participate in various projects with financial, personal dedication and enthusiasm.

#### 4.3 Lessons Learned from the Airbus: How the UN Sustainable Development Goals May Shape the Approach

The manufacturer of commercial aircraft, for organizational units for the cosmic and defense industry, as well as for helicopters, Airbus is the largest aviation and cosmic company in Europe and the world leader. Although it is a European company, it operates around 180 locations around the world and has around 12,000 direct suppliers globally. The final assembly lines for aircraft and helicopters are located throughout Asia, Europe and America, with the number of orders compared to 2000 increased sixfold. The workforce is about 130 nationalities, and by 2020, half of the employees will be women, which will emphasize Airbus's commitment to a diverse and inclusive labor force (Airbus, 2018).

As a company represented globally, Airbus has accepted the goals of sustainable development of the United Nations for 2030 as a map of the way of continuous progress. It seeks to create products with better ecological performance and technologies that contribute to sustainable mobility, while industrial and educational initiatives improve economic and social conditions around the world. Employees and equipment of the company provide assistance in disaster zones, and young people are educated and inspired by the Airbus Foundation, providing future generations of innovative scientists and engineers (Airbus, 2018). Acceptance of sustainable development objectives and their incorporation into business practices include product safety and occupational safety and health policies, adherence to strong ethics and process compliance, stronger relationships among employees, encouragement and cultivation of diversity within the organization and its culture, as well as ensuring that the practice of accountability is to support the entire chain of company supply. Airbus found itself in 8 out of 17 goals of sustainable development of the UN.

The goals in which Airbus recognized are: 4 - Quality Education (5 - Gender Equality - to achieve gender equality and empower all women and girls), 8 - Decent Work and Clean Energy (to promote sustainable, inclusive and sustainable economic growth, full and productive employment and decent work for all), 9 - Industry, Innovation and Infrastructure, to promote inclusive and sustainable industrialization and foster innovation, 13 - Climate Action (to take urgent action to fight climate change and its impact), 16 - Peace and Justice Strong Institutions (to promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels) and 17 - Partnerships to achieve the Goals (to revitalize the global partnership for sustainable development).

Airbus employees had the opportunity to participate in shaping the culture of this organization through the survey, and such a choice selected six values that lead the way this company works: we are one, integrity, focus on user, creativity, respect and reliability (Airbus, 2018).

## 5. Conclusion

In this study it was shown that Corporate Social Responsibility and sustainable development are a very important element of business politics of multinational enterprises. The origin of the sustainable development concept is clarified and the fundamental dimensions during the time are explained. Also, a brief overview of current trends in Corporate Social Responsibility is presented through case studies of Henkel, OSRAM and Airbus companies. Furthermore, it is emphasized that the consciousness associated with this topic evolved to the level of an internationally recognized standard.

The results of this study underlined the importance of Corporate Social Responsibility and sustainable development which are key elements that add real value to the company. These two concepts involve a wide range of stakeholders, also.

The topic is relevant and this paper can be used by students of the Faculty of Organizational Sciences, as well as those to whom corporate social responsibility and sustainable development belong to the domain of job description. The area of this topic can also be extended in some other papers to other areas of social activity, not only in industry, which would give a real picture of the impact on the society in the present.

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## **ECONOMIC IMPLICATIONS OF CLIMATE CHANGE AND ROUTINE RISKS IN HELLENIC REPUBLIC**

**Abstract:** Anthropogenic activities in globalized world as well as natural processes have increased producing carbon dioxide which have led to global warming. Heat waves in the Mediterranean area increased fire risk, causing potential loss of human lives in urban areas and extensive environmental damage. Climate changes implications in this way require special attention of local and national authorities in order to minimize human casualties and economic expenditure reflected through strengthening absorptive, adaptive and restorative capacities in the fight against different forms of routine and non-routine risks. The Republic of Greece due its geo-position and multiple crisis events in recent past has been exposed to various economic losses that revealed non-resilient system and its weaknesses.

**Key words:** economy, climate change, routine risks, Republic of Greece;

### **1. Introduction**

Risk is any possibility in a particular system which with a certain probability can cause an unexpected quality change, or change or loss of the system. Also, the risk implies a prediction of possible damage or loss. The degree of risk is a function of probability and risk consequence. The consequence of the risk may be positive or negative. Positive consequences are often called an opportunity or chance. Threat or danger are negative consequences - "unpleasant aspect" of risk. It is a complex, permanent, inevitable and uncertain characteristic event and phenomena (Kekovic, Savic et.al, 2011:25).

Global warming have increased heat waves and wildfire occurrence in Mediterranean area due to climate conditions and extreme weather conditions during summer season (Giannakopoulos et al., 2009). Effects of heat waves and wildfires as a form of routine risks on local and national economy can be severe, especially if the main branches are affected such as tourism or agriculture.

Global warming have caused the rise of average temperature leading to heat waves and wildfires as a form of routine risks with previous historical record detected in urban areas of Greece. World economic crisis had severe effects on Greece economy, causing elevation of social vulnerability to climate change hazards (Sapountzaki, Chalkias, 2013).

Urban surroundings in Greece have a high density of population, significant levels of air pollution, large heat absorbing surfaces and a lack of green spaces which makes urban communities within urban areas vulnerable and more susceptible to different disaster risks. Heat waves and fires in urban areas can have direct negative effect on massive loss of human lives, households and critical infrastructure systems (Xanthopoulos, 1988). When it comes to unpopulated, agriculture areas, wildfires can create economic losses through destruction of crops, fruit and olive trees as one of main income products in Greece.

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## 2. Economy sectors prone to climate change impacts in Republic of Greece

Extreme weather conditions can have destructive effects on human health, environment and vital economic sectors. The Republic of Greece as Mediterranean country has a history of shown vulnerability to numerous climate shocks in form of extreme temperatures causing heat waves, droughts and wildfires. (Giannakopoulos, 2009). Climate hazards create disturbance factors for human health, environment and vital sources of state's budget income (tourism and agriculture).

The Ministry of Environment, Energy and Climate Change of Greece "works to achieve the protection of the natural environment and resources, the improvement of quality of life, the mitigation and adjustment to the implications of climate change and the enhancement of mechanisms and institutions for environmental governance" (Ministry of Environment, Energy and Climate Change, 2018). Mentioned executive state authority works tightly with several state institutions in order to set criteria for improving living conditions due to increasing routine risks related to climate change. Different studies conducted by several institutes and independent researches of climate change impact on Greek economy have shown that agriculture and tourism suffer the most from climate change effects (the Environmental, economic and social impacts of climate change in Greece, 2011). The Regional Climate Model (RACMO2) developed by the Royal Netherlands Meteorological Institute was used frequently by Greek state authorities that are in charge for measuring climate effects on different variables (KNIMI, 2018).

Frequent heat waves due to climate changes will affect tourism in several ways. Raising the sea level could severely damage touristic infrastructure which is situated on the coastline. Increased consumption of electricity due to cooling devices activity during summer season will result in bigger expenditure. On the other hand, lengthening summer season could increase incomes as well as warmer winters can cut expenses (Giannakopoulos, 2009). This implication of climate change on tourism as important economic branch will induce more income in spring and autumn season due to pleasant climate conditions in regard to hot summer days (Glaesser, 2006). Mountainous regions in Greece could expect more tourist influx during summer season due to lower temperatures. Water supply and high energy demand during heat waves and extended season presents severe challenge. Revenues from tourism as one of the main economic branches are expected to decrease especially in southern islands (Dodecanese archipelago and Crete), according to numerous studies (CH Full report, 2011). The decreased need for providing tourist services in hotels and private accommodation will cut the employment and the source for living in many Greek families.

Drought duration and potential wildfires create undesirable effects on agriculture income. Water shortages and land desertification decrease agriculture production and directly strike the population of agriculture workers who depend on this sort of income. The rising sea temperatures could also have negative effect on fishery production causing decrease in production of this significant part of earning for people living by the coastline. Decrease in exporting agriculture goods and natural demand on increased import due to droughts and land desertification will pose great threat to Greek economy.

In the case of neglecting or poor treatment, a cascade effect of climate hazards can lead to a "snowball effect" creating great economic expenditures. Energy demand in urban areas is an important implication of climate change. Overloading and electrical disruptions of electric energy supply system can seriously test infrastructure capacities during heat waves (Giannakopoulos, 2009).

Table 1.: Prediction of climate change effects in urban areas (Dianeosis, 2018)

Table 10: Impact of Climate Change in the Cities

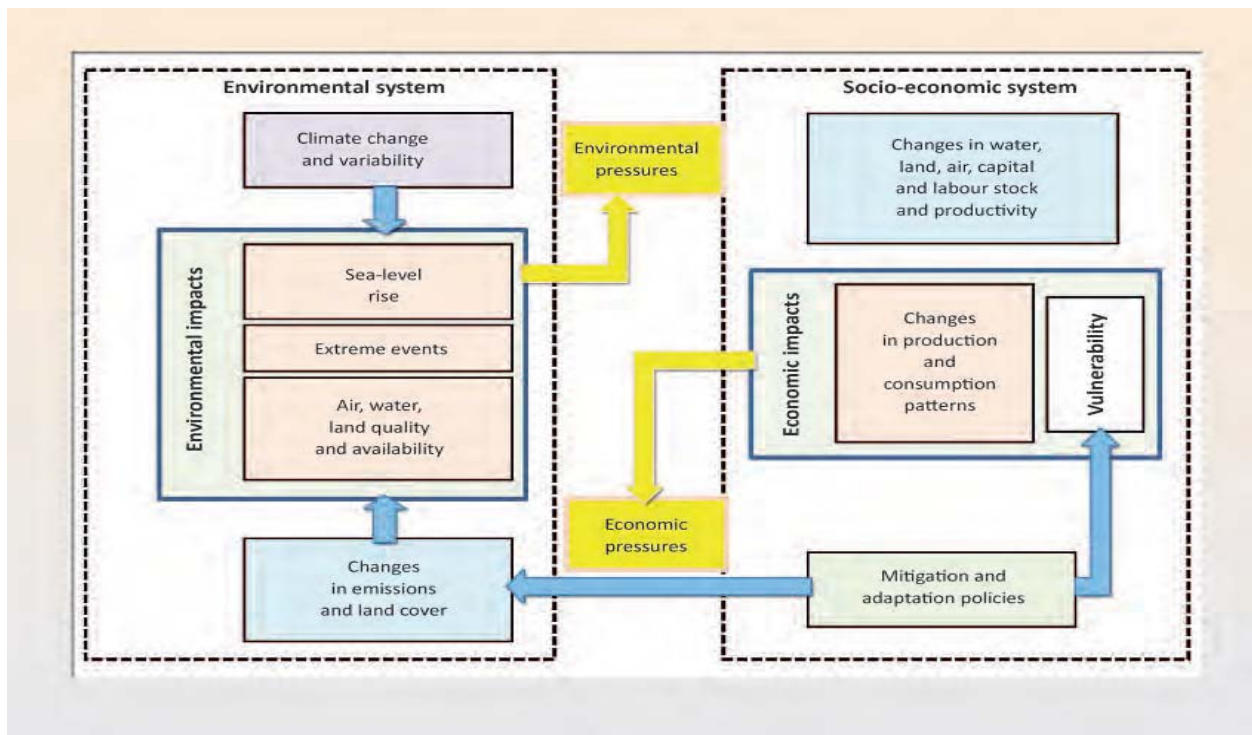
Climate Risks	Primary Effects	Secondary Effects
Temperature Increase	<ul style="list-style-type: none"> <li>• Depletion of groundwater</li> <li>• Water scarcity</li> <li>• Draught</li> <li>• Intensification of heatwaves</li> </ul>	<ul style="list-style-type: none"> <li>• Urban heat island</li> <li>• Increased energy demand for cooling</li> <li>• Increase of energy prices</li> <li>• Impact on population health</li> </ul>
Extreme Weather Events	<ul style="list-style-type: none"> <li>• Floods</li> <li>• Fires</li> <li>• Landslides</li> </ul>	<ul style="list-style-type: none"> <li>• Material damage</li> </ul>
Rising Sea Levels	<ul style="list-style-type: none"> <li>• Coastal floods</li> </ul>	<ul style="list-style-type: none"> <li>• Material damage</li> </ul>

The city of Athens is one of the oldest cities in the world and important touristic center, consisting of thousands old constructions vulnerable to heat stresses. High energy demand requires alternative energy supply sources since the temperature elevation of one degree Celsius will result in country's energy costs approximately 600 000 € per day (Dianeosis, 2018). When it comes to routine risks damage restoration, the construction and civil engineering sector can have benefits as well as transportation system in relation to extensive need for delivery of construction materials (CH Full Report, 2011).

### 3. Economic dimension of climate change in Greece

Economic implications assessment of different aspects of climate change on Greek budget is a complex process. Interaction between economy and climate change is double-sided since climate change can damage economy and vice versa, economy is a perpetrator for climate change due to rise of CO<sub>2</sub> emission as a result of economic growth (CH Full Report, 2011). Fossil fuel combustion and agriculture processes can also create negative effect on climate change due to high level of CO<sub>2</sub>.

Figure 1.: Interaction of climate change effects and the economy (Bosello, 2003)



Set of measures recommended for climate change and routine risks mitigation effects include (CH Full Report, 2011):

- Measures for crops improvement (i.e. development of crops resistant to high temperatures)
- Public work (irrigation systems improvement, dam construction initiatives, prevention of forest fires through reinforcement of forest protection infrastructure)
- Protection mechanisms (early warning systems development, prolongation of forest protection periods during heat waves and fire forest risk days)
- Building resilient capacities for fire response

Since the availability of water supply could pose great problems to residents and non-residents during summer season and especially during heat waves, a set of proposed measures for this sector includes:

- Improving of existing water supply systems infrastructure
- Establishing better water unnecessary water loss control
- Seawater desalination and collection of rain water
- Normative modifications regarding water pricing

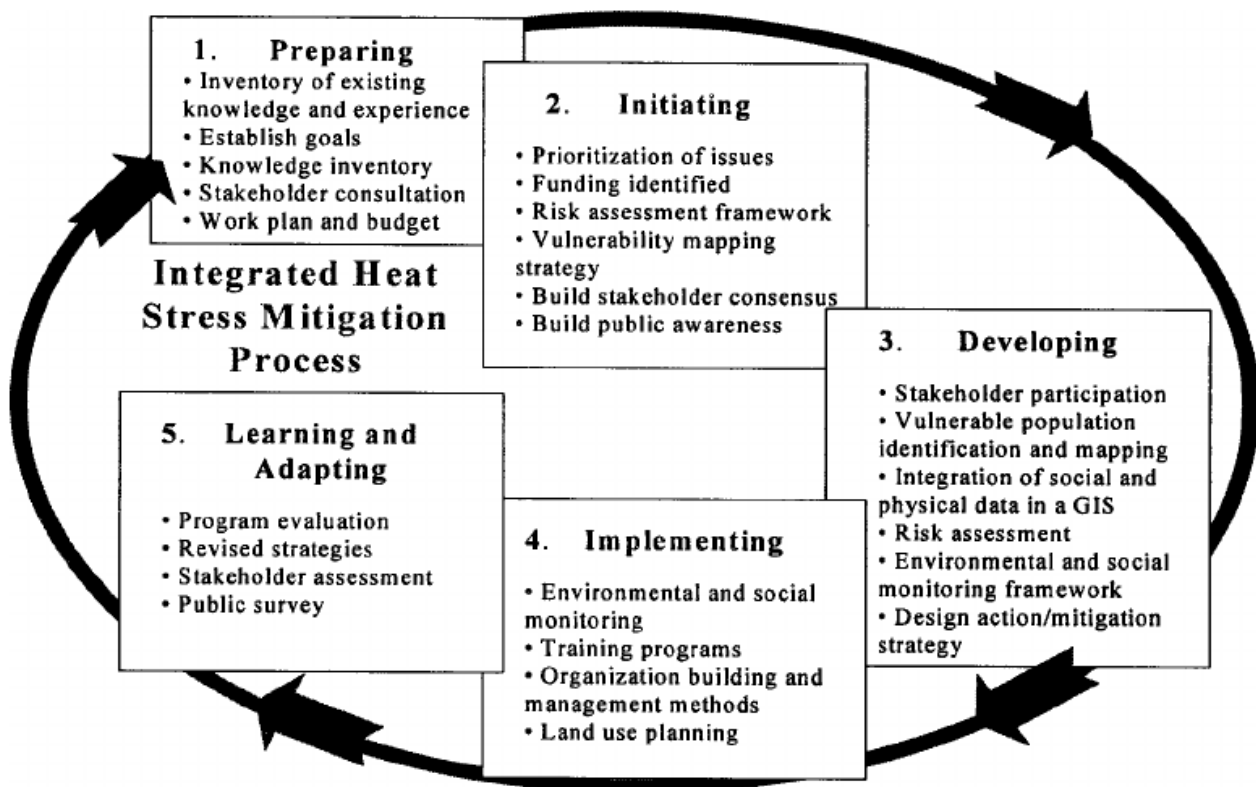
A set of proposed measures for tourism as main income branch consist of:

- Investments in private sector and tourism infrastructure
- Public works in order to protect infrastructure from routine risks such as heat waves and fires

At last but not the least, human health as the most important part of proposed measures for heat waves and fire mitigation include:

- Improving of health system infrastructure
- Disease control, monitoring and investments in research for diseases related to climate change
- Living environment improvements
- Heat waves and fire early warning systems improvement
- Building stronger network of medical assistance during critical periods

Figure 2.: Heat stress mitigation (Wihelmi, Purvis, Harriss, 2014)



### 3.1. Natural hazards and economic crisis in The Republic of Greece

Weak preventive and absorptive capacities of Greek civil protection services during devastating fires in 2007 have shown that precautionary principle established in antics by Hippocrates (“Κάλλιοντο προλαμβάνειν ή τοΘεραπεύειν”-It is better to prevent that to treat afterwards) wasn’t applied in a proper manner. Human casualties, material damage and foreign assistance exigency became strong indicators of non-resilient institutional framework for disaster management. The world economic crisis had diminished efforts of Greek state authorities to target budget funds for disaster risk reduction mechanisms.

Weakened institutions during the economic, political and migrant crisis in Greece had decreased their ability to react in a proper manner designed by normative documents in this country. Public agencies for civil protection have lost personnel and financial support necessary for conducting necessary measures in combating wildfires. Medical health systems as an important part of state’s adaptive and absorptive capacity had also suffered from economic recession, resulting in loss of strength and efficiency (Economou, 2011). Budget cuts due to economic crisis resulted in institutional vulnerability with low preventive, absorptive, adaptive and restorative capacities within disaster risk management process (Parker, Tapsell, 2009).

The high level of unemployment has resulted in the increased vulnerability to heat waves of poor people who had lost their jobs, health insurance and some of them their homes. Initiatives of state and nongovernmental agencies for providing different forms of help for unemployed citizens have shown negative effects such as providing cheap accommodation prone to natural hazards (Sapountzaki, Chalikas, 2014). Positive effect of economic crisis in relation to building capacities for disaster resilient communities can be found in forming of volunteer firefighting brigades made by people who had lost their jobs (Ibid.).

According to Humphrey's model of SOFT analysis (Bodrum, 2010), positive and negative effects of climate change and routine risks to Greek economy can be treated through satisfactory events and opportunities as well as faults and threats. Building resilience to disasters caused by climate change and routine risks can be a good solution for unexpected events that come in a form of faults and threats.

#### 4. Conclusion

Climate change caused rising temperatures in Greek cities, which have led to heat waves and wildfires in urban communities. Heat waves and wildfires in 2007 exposed indicators of non-resilient system for civil protection due to dozens of casualties and severe material damage. Economic crisis combined with burden of migrant crisis generated aggravating circumstances for strengthening preventive, absorptive, adaptive and restorative capacities of Greek civil services in combating mentioned natural hazards. The high rate of unemployment accelerated social vulnerability to routine risks in Greek cities.

Tourism and agriculture as main economic branches that produce the large income for Greek budgets, have already shown negative effects of climate change in urban and suburban areas. A set of proposed measures proposed by several research studies related to building disaster resilience in urban communities include wide spectrum of activities related to the improvement of specific areas affected by climate change. Special implementation of measures is needed in improvement of water supply systems as well as health system damaged by rigorous savings measures imposed to Republic of Greece by international financial institutions. Building resilience to routine risks in urban areas in Hellenic Republic through strengthening of each capacity (preventive, absorptive, adaptive and restorative) will enhance the system's ability to cope with negative effects of climate change.

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## THE ROLE OF COMPETITION POLICY IN MITIGATION RISKS ASSOCIATED WITH DATA-DRIVEN ECONOMY

**Abstract:** Competition policy can be defined generally as a set of policies and instruments that are intended to encourage competition in markets and to encourage the allocative efficiency. At the same time, competition increases economic efficiency, by reducing production costs, boosting technological progress and innovation. In recent years, it has been expected that knowledge derived from Big Data analysis will inspire further innovation in the context of the spread of Internet of Things and the advancement of artificial intelligence technology. This will increase industrial productivity, and has been described as constituting the fourth industrial revolution. Big-Analytics and Big Data have become extremely important in today's economy. They raise many legal, moral and ethical issues, such as cyber-security and the responsibility of companies for actions of their algorithms. The subject of this paper is the implication of Big Data for competition policy as well as for global competition security, with focus on consumer and economic welfare. Big Data provides competitive advantage, but platforms with Big Data are more likely to infringe competition and anticompetitive effects thus incurred can prevail over efficiencies. The aim of this paper is to explore how competition law should mitigate risks arising from the data-driven economy.

**Keywords:** Competition Policy, Big Data, Data-Driven Economy, Cyber-Security

### 1. Introduction

The goal of competition policy is aimed at achieving the increased level of economic efficiency in order to improve the wellbeing, and secure the benefit of the consumers. That is achieved by implementing the competition law and engaging in competition advocacy. In so doing, a free and open market could be secured. Regulations reducing or removing market barriers to entry, as well as transparent public procurement rules, are only some examples that might be driven by reforms within competition policy area, and in such manner produce the synergy effects serving to increase a country's productivity and boost economic growth. Adequate implementation of the antitrust policy foremost prevents the presence of cartels operating within a market, abuse of dominance by dominant companies, as well as implementation of mergers and acquisitions creating or strengthening the dominant position that could easily be abused.

Digitalization is a link between the IT and web phenomenon and has a potential influence not only on the communications sector but the entire economy as well, including both end-users and all active companies, as well as political decision-makers. New digital markets emerged as a result of digitalization. The main goal of respective undertakings is to draw consumer attention. The success of many online companies depends on their success in the struggle for audience, that is, their service users. It may be said that those companies are practically more involved in securing respective market share than in achieving a competitive advantage against their direct competitors on already existing markets. Market competition also includes the creation of new markets. That is why the processes and activities occurring on digital markets are characterized by extremely high dynamism.

Digitalization related data have specific economic features relevant for the market competition analysis. In order to analyze the relation between Big Data and competition, it is necessary to perceive

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both economic and features of data and Big Data. In the digitalization, data may be observed as a production factor or input for production of products and provision of services.

The paper opens with the explanations on the main principles of competition policy. It continues with the clarification on Big Data concept and its relation with the data-driven economy. The competitive advantages of Big Data are identified, as well as digital era-related risks. Five indicators are identified, necessary to be further analyzed in detail in order to perceive whether a particular digital market contains certain forms of competition infringements. By using precisely such defined methodology, it is possible to mitigate risks from the competition policy aspect associated with the data-driven economy.

## 2. Effectiveness of Competition Law and Policy

Competition policy is a primary public policy aimed at securing that market competition would not be disturbed in a manner damaging for the society (Mota, 2004). Competition as a process of business rivalry between companies plays a main role in fostering economic growth and development. Adequate implementation of the competition law contributes to the increasing of effectiveness of undertakings. Economic prosperity and wellbeing of the society, and especially the benefit for end-users are secured in such manner. Competition incites companies to improve their products and reduce costs, leading to the increased productivity and innovations, which ultimately facilitates faster economic growth and improves the overall business environment. On the other hand, competition secures a wider assortment of products offered to end-users at more favorable prices.

Serbian consumers spend a great share of their income on food staples (Obradović and Milošević, 2017). If market competition would be distorted, prevented or restricted, products and services used for satisfying fundamental human needs would be more expensive or unattainable, contributing to the reduction of standard of living of the population. Among others, competition may also help small producers to earn more. If a market is not monopolized or cartelized and is open and competitive, there will be more possibilities for small producers and workers as well. In broader terms, when we have a competitive market, it also brings a strong macroeconomic growth. Such growth increases the level of employment and wages, thus creating a more favorable macroeconomic environment not only for large companies, but for small and medium size companies as well. In such a way, competition as such can also have a broader economic effect on the general social wellbeing.

Based on the above presented features of competition process, it may be concluded that the implementation of a adequate competition policy is extremely important. Effects of competition may appear both on the macro and the micro level. Competition policy is implemented with the goal of achieving economic prosperity and wellbeing of the society, and especially the benefit of the consumers.

The goal of competition policy is aimed at achieving the increased level of economic efficiency in order to improve the wellbeing, and secure the benefit of the consumers. That is achieved by implementing the competition law and engaging in competition advocacy. In so doing, a free and open market is secured. Regulations reducing or removing market barriers to entry, as well as transparent public procurement rules, are only some examples that might be driven by reforms within competition policy area, and in such manner produce the synergy effects serving to increase a country's productivity and boost economic growth.

Adequate implementation of the competition policy foremost increase probability of detection of the presence of cartels operating within a market, abuse of dominance by dominant companies, as well as implementation of mergers and acquisitions creating or strengthening the dominant position that could easily be abused. In such manner competition policy promotes the removal of barriers to entry, thus enabling the market entry of new companies. Competition policy rules secure the market survival chances and undisturbed commercial activities for all companies regardless of their size, provided that they work efficiently. Properly due to this, the goal of competition policy is not to protect competitors but competition.

The sectoral structure of an economy can also be associated with the need to implement competition policy. In the developed economies with a significant share of industrial production in the creation of gross domestic product, exist a strong need to keep and preserve the efficiency of individual companies by way of implementing the competition policy. To what extent will competition policy be present in a country depends on the role of the state in a country's economy. If state authorities undertake and implement activities that are the integral part of business cycles and economic development programs, then institutions in charge of competition policy implementation on such markets must be strong, competent and foremost independent.

Social policies are aimed at increasing the level of wellbeing of individuals, particularly vulnerable social groups. E.g. free education, free medical services and etc. can be listed as examples of individual social policies. In such manner, individuals are enabled equal access to certain services. However, in respect of providing social assistance programs, it is important to observe whether the population is enabled to use such services solely in state-run institutions or the option between state and privately owned institutions is present. If the nature of social policies is such that the state secures necessary financial funds while beneficiaries can choose between private and public institutions offering related services, then the service market competitiveness is induced, based on the scope of related social protection programs. That implies that even when implementing individual social policies is necessary to adhere to competition rules and regulations.

It is of crucial importance for the economic system of a country to be founded on the rule of law and a high level of mutual competition between individual undertakings. It is very important that companies can calculate operating risks and plan future activities with a great level of certainty. The presence of corruption in business environments increases the uncertainty of operations, which can be directly reflected on the level of competition. In the corruption affected system, certain interest groups may bring pressure on the executive branch with the goal to prevent implementation of regulations in respect of their business operations. Hence, the adequate and consistent implementation of competition policy can influence the reduction of corruption.

The increase in productivity within certain economic activity is conditioned by a constant presence of competitive pressure. That is why is fully clear that the improvements in market competition lead to the increase in productivity of individual companies, and thus inevitably, to the improvements of their own competitiveness. The high level of market competition by default secures:

- Lower product prices,
- Increased selection for consumers,
- Higher economic growth,
- Increased employment possibilities.

Through introducing the competition policy in the developing countries, respective market competition is prompted, owing to which companies will be forced to reinvest in new production technologies, new production processes and new products. The competition policy promotes productivity, as well as allocative and dynamic efficiency, which enables companies to achieve the economy of scale, strengthen international competitiveness and build up research and development capacities. Thus, the high level of market competition and presence of strong competitors will create internationally competitive companies. Such competitive market creates advantages when observed from the aggregate macroeconomic level as well. Strong competition makes companies more flexible, thus they are more straightforwardly adjusted against internal and external shocks. Such individual adjustments assist in preserving a country's macroeconomic stability, affected by those shocks.

### 3. Definition of Big Data and Data-Driven Economy

There are various definitions for the term 'Big Data'. In general terms, this concept may be defined as the collection and processing of any data related to an identified or identifiable undertaking. Owing to the technological development, data availability and access exponentially grew, thus their collection became even more important. All that caused the emergence of the Big Data concept and the use of real-time forecasting techniques. That truly represents a great step forward when compared to the

traditional database analyses. Big Data systems enable the real time analyses of large volumes of data, with considerably reduced costs.

In addition to Big Data, the term 'Internet of Things' is also often mentioned. This term has different definitions as well, but it may be generally perceived as a manner in which computers, sensors and various installations mutually communicate and process different sorts of data. The Big Data concept characteristics are defined by the 4Vs (Stucke and Grunes, 2016, 16): Volume of data; Velocity at which data is collected, used and disseminated; Variety of information aggregated; and, Value of data.

The volume of collected data constantly grows year after year. Ubiquitous digitalization affecting all spheres of people's lives, leads to the increasing migration of social and economic activities from the real environment to a virtual one, implying that increasingly growing number of social and economic activities are internet-based. Here is foremost implied on various e-services such as social networks, e-commerce, e-government, et c. In such virtual surroundings, petabytes (millions of gigabytes) of various data per second are globally generated on a regular basis (OECD, 2014). One of the reasons greatly facilitating to the increased volumes of collected data relates to the decline in the cost of data collection, transport, storage and analytics, correlated with the technological developments.

The velocity at which data is collected, processed and analyzed has considerably increased. The time needed to collect, process and analyze data is reduced. Some applications even allow the use of real-time data features, with continual input, process and output of data. Consequently, potentials of data analytics are also increased, thus it is possible to directly influence on the surrounding environment or business decisions of the observed undertaking. Such systems are already present in stock markets. They are algorithm-based, observing the collected data and providing auto-analytical results. Algorithms are adjusted so that system can independently make the real-time trader related decision upon collecting particular prerequisite data series.

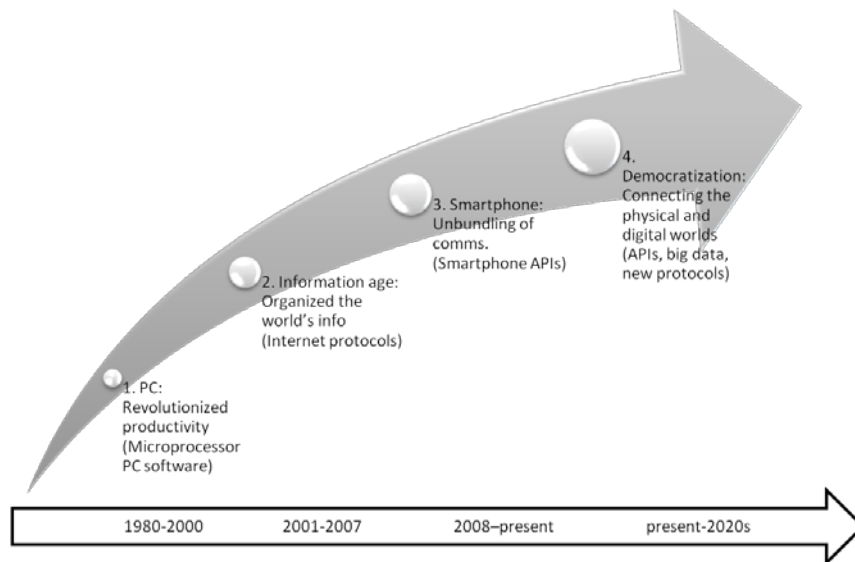
Not only the volume and velocity of data collection are a reason for the increase in the value of data. The variety of collected data on individual subjects also increases the value of collected data. Let us take for example the retail industry and the quantity of data that Serbian retailers collect on their consumers via loyalty cards. They first collect personal consumer information such as address, age, sex, number of household members and buying habits. Then they record their purchases and generate individual shopping history records in their information systems. Consumer preferences and habits can be detected by analyzing such data. Some loyalty cards are even linked to bank accounts, thus enabling retailers to have data on debit and credit history of their consumers. Such collection of data on individual subjects from different sources gives data an additional value. Cross-referencing data from different sources enables companies to increasingly adjust their services and products against the preferences of their consumers.

The volume and variety of data collected, as well as the velocity of their collection are increased, since the value of data is increased as well. The Big Data concept is closely related to the Big Analytics concept. The emergence of tools enabling processing and analytics of large amounts of data in a short period of time has increased the value of data themselves. Big Data would have been less of a value if companies would not be able to swiftly analyze large quantities of data and receive analytical results.

In the majority of cases, Big Data can be experienced as a win-win strategy. It creates benefits for both companies and their buyers. For instance, certain data may reduce company's costs in terms of identifying buyers and their needs. Companies may use data to secure so-called smart products, which increase energy-efficiency and overall social prosperity. Data on energy consumption may contribute to more efficient energy consumption via smart adjustment technologies. For example, energy supplier may identify consumers whose consumption significantly deviate above average levels. If such residential units do not have adequate thermal insulation, they would be able to precisely calculate the costs of installation of qualitative insulation and the degree of reduction in energy consumption. Considering that electricity is charged per various tariffs, implying that increased consumption may lead to a significantly increased unit price, it is likely that significant savings can be made by installing qualitative insulation.

In the digital era, storage, reproduction and transfer of all types of data, including audio, video, texts, graphics and other alike data is done in the form of digital tracks with a binary code inscription. While traditional networks were designed for specific applications, for example, telephone networks for audio and limited data transfer via facsimile, cable networks for video signal transmission etc., the Internet, including the Internet Protocol (IP), are of a universal nature and can transfer all types of information. The following picture graphically represents the process of digitalization and various respective technological development phases.

Figure 1: Technological development phases in digitalization



Source: (Yang, 2015)

Several development phases may be identified within the technological development causing the Big Data concept (Walsh, 2015). Initially, the period from 1980-2000 is characterized by the growing use of PCs, with Microsoft and Intel dominant positioning. This stage is followed by the advent of the Internet and development of data availability in 2001-2007. The most prominent companies in this period were Google and Amazon. The following period from 2008-up to date, can be related to the development of the Internet of Things, that is, usage of mobile devices and emergence of applications such as Facebook, WhatsApp, Viber and alike. Considering the current trends, it may be expected that in the upcoming period physical and digital worlds will be more intensely interconnected, while for the time being, Big Data remains centrally positioned in digital domains.

Based on the aforesaid, it may be concluded that the platforms became recognizable as a central element of digital markets and increasingly more prevailing data-driven economy (Zimmer et al. 2015). Data-driven business models often encompass multisided platforms. Companies offer buyers free services, aimed at securing valuable individual data to be further used in marketing campaigns and improved consumer targeting.

#### 4. Competitive Advantage and Associated Risks of Big Data

Big Data secures competitive advantages to implementing companies, since it provides an improved understanding of buyers, aimed at providing better and more qualitative goods and services they need (Ning et al. 2017). Let us take for example the web search engine. By collecting data on search and browsing history, software developers can improve and redefine search algorithms, leading to more qualitative search results and increased level of user satisfaction.

Data are of a vital importance for matching platforms and sharing economy platforms, such as for example the online taxi-platform Uber. Time needed to connect platform users varies on the number of users on the supply-side and demand-side platform, and on the volume of data collected via related



service. The increase in the number of buyers on the demand-side platform increases initiatives on the supply-side platform. This cause-and-effect connection is two-way. More platform users increase the volume and variety of collected data and lead to a more efficient linking between demand and supply, which in turn increases the attractiveness for new users, while these elements altogether are ultimately increasing the value of the platform itself.

Data can also be used to better target potential customers and to provide them with individualized advertising, services or products (Autorite de la concurrence and Bundeskartellamt, 2016). In order to provide a more detailed description on the subject-matter, we will use the online advertising based on behavioral targeting as an example. Behavioral targeting is a concept for the creation of online ads to target specific users. Ads are based on user profiles and data collected by observing their surfing habits. Internet platforms register and collect data based on search history. By analyzing information collected in such manner, platforms have an option to detect user preferences and send them highly individualized targeted ads. In such way they reduce advertising costs and render ads more cost-efficient.

Access to data enables companies to explore new business opportunities. By reusing data gathered in the context of one service for a different purpose, companies may provide new services based on these data. E. g. mobility data generated by mobile network operators and mobile phones are used by navigation service providers to better show traffic jams.

The abundance of data collected and analyzed today changes the nature of competition as well. The tech giants still benefit from network effects. The more individuals with open Facebook profiles, the more attractive Facebook becomes for other individuals without a profile.

In the initial development phase of platform economy, services were not free. For example, in the early stages of modern telecommunications, providers charged services both to callers and call-receivers. Also, credit card services such as MasterCard and VISA charged fees both to traders and card holders. Parties involved in credit card transactions were charged not only for their use, but were obligated to previously provide their personal information, while their related transaction history was later recorded. Information and data provided by users for free were valuable for platform operations even in the early stages of the platform economy development. E.g. telephone companies used phone numbers to create yellow pages, later offered commercially to other telemarketing companies. Banks started to use transaction history generated data to check client credit solvency.

In parallel to the development of platform economy, a growing number of free goods and services are provided in the marketplace (Evans, 2011). Operators in traditional industries such as print media and television offer free magazines and TV programs to consumers and recoup the product cost by charging service fees to advertisers. This business model where one side of the market is for free (Newman, 2015) and the other is not, represents the so-called two-side market, commonly adopted by Internet platforms. However, as mentioned earlier, data were collected in the early stages of platform development as well, and also used for the reduction of operating costs. Still, free markets only emerged in the later stages of platform development. At the early stage of platform development, the volume and variety of the data collected were limited and the analytic capability of platforms was not well developed, so little use could be made of the data collected. That is why the cost-efficiencies were limited. As platforms evolved, so did the volume and variety of collected data, but also the capability to adequately process and analyze collected data. That was the reason for the emergence of multi-sided platforms in the later stages of platform development process.

Concerns about the rise of big platforms are mainly due to the snowballing effect generated by the interplay between Big data and Multi-sided platforms. Analysis and exploitation of Big data help improve service quality and transaction efficiency, reduce cost, and help platforms explore more areas of business. Platforms use algorithms to optimize behavioral advertisements, individual promotions and prices. With the increased data volumes on users, price algorithms can better forecast behaviors and preferences of users. In such a way companies may price discriminate in order to maximize amounts that individual users would be willing to pay for a given product or service, and in doing so, maximize their profits while leaving no room for consumer choices.



Companies in control of vast quantities of data on consumers automatically have a competitive advantage over other companies. Digital era provided possibilities to consolidate data on consumer habits and create practically individualized ad campaigns by using digital platforms. The competitive edge in achieving increased market share is improved if companies own several various platforms enabling them to achieve the synergy effects through related interplay.

Consumers usually have access to different platforms via single provider, which enables related providers to develop a very detailed user profiles. Providers most often provide free services to their users, and recoup the product cost by charging service fees to advertisers on related platforms. The availability of vast quantities of data is a mean that shapes the competitive dynamics and can cause the creation and strengthening of market power. Business decisions on consumer privacy may lead towards a form of non-price competition, thus the privacy, in that sense, can be considered as a parameter of competition on digital markets. In direct relation to the vast quantities of data on consumers held by companies, the issue of their privacy is raised in parallel to the issue of cyber-security.

Developed platforms have a possibility to favor their suppliers, or even to simply and easily vertically integrate. Within the platform economy, as in the case of the majority of markets, vertical integration can lead to the increase of efficiency. However, under certain circumstances, vertical integration of platform economies can also cause anti-competitive market practices. (European Commission, 2017). If vertically integrated platforms are re-controlling a great part of supply, there is a concern that consumers will not be ready to move to other platforms with sufficient number of supply-side parties. For that reason, platform operators can abuse the consumer trust or their loyalty, and in order to accumulate extra profits initiate with the implementation of anti-competitive practices such as excessive prices, discrimination, tied selling and alike.

Digitalization of economy created many challenges for competition policy. Currently is questioned on the adequacy of the traditional approach in analyzing conditions of competition in the case of digital markets. Analytical steps used in the traditional approach are one-way. It is initiated from the assumption on the competition infringement, followed by the definition of relevant market(s). The basis of the remaining part of analysis is then established. The implementation of this approach is more difficult in the case of digital markets, since digital companies are often mutually competitive, inter alia, in terms of new business models, and in such manner they constantly redefine market boundaries, and in fact create completely new markets.

## 5. Mitigation Risks Associated with Big Data

Analytical steps in competition cases initiate with the description of market structure. The relevant market is defined, competing parties are identified, and leading companies are tested to determine the existence of dominance. The next step is the analysis of market behavior of undertakings and the assessment of their competitiveness.

Figure 2. Traditional structure-conduct-performance paradigm



Source: (European Parliament, 2015)

The main issue of the traditional step-by-step analytical approach is that it excludes retro-causative relations, from performances and business behavior to reverse influence on the market structure. If

such reverse influence is prominent and strong, the traditional approach should be changed and market dynamics should be considered. That is particularly because digital markets are extremely dynamic.

Figure 3. New structure-conduct-performance paradigm



Source: European Parliament, 2015, 51.

Within digital markets inquiry, more adequate initial analytical step would be to focus on the business case and an in-depth related company. The main purpose of this initial step should be the identification of other companies and business models which are or could be competitive to the observed company, i.e. observed business model.

Also, analytical tools used by competition authorities must be updated and adjusted to fit digital markets. A strong counter-effect present on those markets places the observed company and behavior of its competitors under limelight, while properly such behavior determines the assessment of their market power and dominance. Market share and profit margins on these markets are less useful for determining market power (European Parliament, 2015). It is far more important to observe indicators pointing to the level of market obstacles, such as barriers to entry, availability of alternative routes to reach end-users, etc.

In such a way, if assessing the market power created because of the use of Big Data effect it is necessary to include several indicators (Til et al. 2017): exclusivity, learning effects, orchestration of interaction on a network, complementary assets, competing business models etc. When analyzing the exclusivity, it is necessary to establish whether the data are exclusively available to one company or can other companies obtain access as well. In terms of learning effects, it is necessary to analyze whether the use of collected data contributes to learning effects used to improve products or services. Orchestration of interaction on a network is also important when observing the market power. Here is necessary to investigate whether observed platforms can influence the presence of various types of users on a platform. Also, it is necessary to investigate on any asset that can be considered complementary to the data, as well as if they are exclusive or substitutes are available. Ultimately, it is necessary to analyze the existence of other any companies that use different business models but compete with the company considered.

The described methodology represents an analytical framework where the approach should be determined from case to case. In such manner is possible to establish how Big Data can contribute to the creation of market power. By using this methodology which assists in detecting dominant players on digital markets, competition related risks brought in by the Big Data concept can be reduced. The methodological framework actually reflects that the data are only one input, and that other inputs may also be important for the market power assessment.

## 6. Conclusion

Competition policy is a primary public policy aimed at securing effective market competition and providing that market competition would not be disturbed in a manner damaging for the society. Competition as a process of business rivalry between companies plays a main role in fostering

economic growth and development. Adequate implementation of the competition law prevents ineffectiveness of undertakings. Economic prosperity and wellbeing of the society, and especially the benefit for end-users are secured in such manner. Competition incites companies to improve their products and reduce costs, leading to the increased productivity and innovations, which ultimately facilitates faster economic growth and improves the overall business environment. On the other hand, competition secures a wider assortment of products offered to end-users at more favorable prices.

Adequate implementation of the competition policy foremost increase probability of detection of the presence of cartels operating within a market, abuse of dominance by dominant companies, as well as implementation of mergers and acquisitions creating or strengthening the dominant position that could easily be abused. In such manner competition policy promotes the removal of barriers to entry, thus enabling the market entry of new companies. Competition policy rules secure the market survival chances and undisturbed commercial activities for all companies regardless of their size, provided that they work efficiently. Properly due to this, the goal of competition policy is not to protect the competitors but the competition.

Owing to the technological development, data availability and access exponentially grew, thus their collection became even more important. All that caused the emergence of the Big Data concept and the use of real-time forecasting techniques. The volume of collected data constantly grows year after year. Ubiquitous digitalization affecting all spheres of people's lives, leads to the increasing migration of social and economic activities from the real environment to a virtual one, implying that increasingly growing number of social and economic activities are internet-based. The velocity at which data is collected, processed and analyzed has considerably increased. The time needed to collect, process and analyze data is reduced. Some applications even allow the use of real-time data features, with continual input, process and output of data. Consequently, potentials of data analytics are also increased, thus is possible to directly influence on the surrounding environment or business decisions of the observed undertaking. The volume and variety of data collected, as well as the velocity of their collection are increased, since the value of data is increased as well. The Big Data concept is closely related to the Big Analytics concept. The emergence of tools enabling processing and analytics of large amounts of data in a short period of time has increased the value of data themselves.

Various development phases of platform economy and digital market regulate the various role of data. That is why is necessary to consider different scenarios of growth of big platforms in various sectors of economy. Platforms became recognizable as a central element of digital markets and increasingly more prevailing data-driven economy. Data-driven business models often encompass multisided platforms. Companies offer buyers free services, aimed at securing valuable individual data to be further used in marketing campaigns and improved consumer targeting. Such platforms will use advanced algorithms, while potential effects of those platforms and related algorithms will have to be adequately analyzed and monitored from the standpoint of preventive competition policy.

It is undoubtable that big platforms are much more efficient in connecting the supply and demand sides. However, platforms with large quantities of data have an increased possibility to abuse that data. Compulsory reaction of competent competition authorities is needed when anticompetitive effects prevail over positive ones. Even in the early development stages, platforms can have a considerable consumer database that might be used in an inappropriate manner and in such way implement some of business practices established as infringement of competition, namely: sales below cost, refusal to deal, exclusive dealing and discrimination. If these and similar commercial activities implemented via platforms infringe competition or cause damages for consumers, an intervention of competition authorities is unavoidable.

This paper presents an analytical framework where the approach should be determined from case to case. In such manner is possible to establish how Big Data can contribute to the creation of market power. By using this methodology which assists in detecting dominant players on digital markets, competition related risks brought in by the Big Data concept can be reduced. The methodological framework actually reflects that the data are only one input, and that other inputs may also be important for the market power assessment.

The future research directions on this topic should be focused at developing the identified methodological framework and monitoring the development dynamics of digital markets with the objective of timely updating of the methodological framework, so that competition authorities could always keep pace with the modern times and be prepared to adequately oppose threats and challenges brought in by the fast developing pace of a data-driven economy.

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## MANAGERIAL DECISION IN THE FUNCTION OF CORPORATE SECURITY

**Abstract:** An accelerated pace of development characterized by modern business requires companies to be flexible in order to respond in time to the more demanding needs of market. In order to ensure competitive advantage, companies must base their business on the principles of ethical and socially responsible business. Managers are required to have a high level of knowledge, skills and decision-making skills to create a safe business environment. In the new conditions of business, companies and their management pose with the issue of corporate security. Corporate security is an integral part of the corporate management function, which is a set of all activities aimed to prevent and eliminate the consequences of all factors that in any way interfere with and disrupt the normal functioning of the company. The basic element in the security system is a human factor. With their continuous development and improvement, on the one hand, and adequate rewarding and motivating system, on the other hand, a safer environment is created. The paper emphasizes that the image of employees directly affects the image of the company through a better business reputation, and this makes the corporation more quality, more successful and less susceptible to security risks.

**Keywords:** corporate security, managerial decision-making, risk, protection function.

### 1. Introduction

We live in a world where things change very quickly. Companies must constantly explore and listen to market demand so they could respond at the right time, in the right place and in the right way by providing a range of products and services. This means that companies can achieve their competitive advantage by using their resources to provide consumers/customers with a value which is higher than the value offered by their competition. Most companies aim at creating and maintaining a competitive advantage. A sustainable competitive advantage is the property of those companies whose resources are valuable, rare, and irreplaceable and such that they cannot be perfectly copied (Williams, 2010). Managers who are creators of safe business environment with their business decisions have great responsibility. Managers' operations are based on ethical and social responsibility principles, which is a prerequisite of corporate security.

Jeffrey Pfeffer argues that what distinguishes the most successful companies from their competition is the way in which they treat their employees, that is management styles. Pfeffer concluded that managers at the most successful companies apply the following concepts: workplace safety, selective employment, self-governing teams and decentralization, high salaries conditioned by organizational performances, training and development of skills, reducing status differences and financial information exchange (Pfeffer, 1996).

These concepts help organizations to create workers who are more intelligent, better trained, more motivated and committed to work than workers who work for their competition. Companies which invest in their human resources will create a long-term competitive advantage that cannot be easily copied by other companies. This will have an effect on the creation of a corporate image. Companies which have created a good image have a significant resource at their disposal. The image influences consumers' perception, and the probability of decision making regarding the purchase of a certain product or service. (Lekic, & Mandić, 2014). Numerous researches indicate that correct management practices contribute to the creation of a substantial advantage in four areas which represent key indicators of organizational performances: sales revenue, profit, company share price and customer satisfaction. (Williams, 2010)

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## 2. Decision making

Peter Drucker (1980) is of the opinion that managers are one of the most important resources of modern organizations, without whom other economic resources (land, work, capital, information, energy) are dead and useless. He holds that managers are also one of the most expensive resources. In this respect, he does not mean the managers' salaries only but difficulties regarding the creation of efficient management teams as well. Managers' primary tasks are goal identification, goal execution, the organization of operations, the allocation of tasks, the delegation of authorization, the establishment of the scopes of management, personnel selection and appointment, encouraging and sanctioning of people's work, futurology and company development.

Every company can achieve its goals through planning, organizing, managing and controlling processes. Decision making is related to each of these processes. Within the planning process based on environment analysis, courses of development are established, goals are positioned and strategies are identified, selected and implemented. Within the process of organizing, decisions are made on organizational design and organizational structure. Management is exercised through a series of decisions which connect motivation and communication with coordination (commands and instructions). Control presupposes constant supervision for the purpose of identifying deviations (failures) and taking preventive and corrective actions. Human resources management is also a mandatory part of this. Decision making is a constituent part of management. (Lekic, 2017). Managers' decisions influence both the subordinates and the organization as a whole. Employees are only interested in how such decisions can affect them. The manner in which a manager makes a decision at the same time determines his/her success and the success of the organization that he/she runs. One should keep in mind that decisions are not made by managers alone. Each employee of an organization makes decisions pertaining to their jobs and to the company they work for (Garvin, & Roberto, 2001).

Decision making is a selection among certain number of alternatives (Cupic, & Suknovic, 2010). It is a complex process which includes eight steps: problem recognition, identification of criteria for decision making, criteria weight distribution, development of alternatives, analyzing of alternatives, implementation of alternatives and evaluation of decision effectiveness (Robbins, & Coulter, 2005).

The process of decision making starts when the problem is created. This presupposes a discrepancy between an actual and a desired state. Problem identification is of subjective nature. In order to be better in problem identification, managers have to: be cautious about the problems, be ready to respond and have the needed resources to act. Once the problem is identified, managers have to decide what is relevant in decision making, namely to identify the criteria for decision making. After that the criteria weight distribution is made. Development of alternatives comes next, implying that a decision maker defines the list of sustainable alternatives for resolving the problems which have incurred. Critical analysis of each comes next after identifying the alternatives, which results in the selection of "the best" alternative. The implementation of the alternative refers to the execution of given decisions, namely to the transfer of decisions to those for whom they are intended and to the obtaining of their approval. Eventually, an evaluation of decision effectiveness is made in order to see if the problem is resolved. In case the identified problem has not been resolved through the implemented alternative, after the process of decision making, the manager should explore possible alternatives so as to determine their effect on the problem, which could require a renewal of the entire process of decision making.

### 2.1. Decision making conditions

Managers make their decisions in certain conditions which could presuppose: certainty, risk and uncertainty. Certainty means an ideal situation for decision making in which a manager can make a right decision because the outcome of any of the alternatives is already known. Risk is a much more frequent situation which implies conditions in which the decision maker is capable of assessing the probability of certain outcomes. Managers are capable of foreseeing outcomes based on previous experience or secondary information. Uncertainty means a situation in which decision makers are devoid of certainty and possibility to assess realistic probabilities. In conditions as such the selection of an alternative is under influence of a limited volume of available information held by decision maker and of his/her psychological orientation (Robbins, & Coulter, 2005).



## 2.2. Ethical aspect of decision making

Present-day business operations require minimum of ethical behaviour. According to professor Branislav Masic (2010) present-day literature for improving quality of decision making in ethical sense during the process of decision making, by stages of problem recognition, analysis of alternatives and the evaluation of decision effectiveness apply the so-called PLUS Plan. This term is an acronym which stands for a set of questions by given stages of the process of decision making.

- Politics – Was the decision made in accordance with the policy and the rules of the respective organization?
- Legality – Was the decision made in accordance with applicable laws and regulations?
- Universality – Was the decision made in accordance with universal values of the society? and
- Self-evaluation – Does the decision comply with our personal values and does it respect the values of other people?

In case the answers to these questions are affirmative, it is highly likely that the decisions are in compliance with ethical norms of the society. Otherwise, it is necessary to perform problem identification, analysis of alternatives and the evaluation of decisions effectiveness in other way until the responds are affirmative.

## 3. Corporate security

Corporate security in the broadest sense is a function of environment specificity in which it performs its activity and strives for goal accomplishment, and of its abilities as well to adapt to environment conditions. Corporate security in the given environment is directly dependent on international security, while within the state it is also dependant on the national security that it belongs to. Its goal is to ensure vital values of a company in accordance with applicable legal provisions of the state in which it does business. As a subsystem of the national security and factor of the civil security it represents a part of security structure with a set of social goals directing business activities of business entities and measures of their social responsibility in accordance with the standards and the law (Markovic, 2007). Corporate security denotes a totality or a sum of all activities aiming at prevention and removal of the consequences of threats challenging in any way the normal functioning of the company. Corporate security in a broader sense is defined as a security action for the purpose of achieving corporate and organizational goals. In a business world, with respect to the corporate sector, security denotes the following: protection against unfair competition, protection against corruption, protection against theft and protection against fraud (Djukic, 2016).

Corporate security is a constituent part of the business function of corporation management and comprises several various and mutually related segments which are supposed to ensure conditions for unobstructed operations of a business system, including safety of all employees, property, capital, infrastructure, etc. Corporate security is an integral security encompassing a variety of contents, tasks and activities and numerous subjects within the business system which, using different procedures, tactical processes, authorisations, etc. perform a series of necessary security and safety measures and activities for the purpose of accomplishing a goal they have in common. The primary goal of corporate security at a company is to ensure the security of the company's business success. This presupposes the following: elimination of all risks and threats which may affect business activities and the accomplishment of a business success; reduction of threatening factors to as few as possible; business functioning in crisis conditions of any kind and it involves: rehabilitation of crisis consequences or extraordinary events and normalization of business processes (Ivandić Vidović, Karlović, & Ostojic, 2011).

Apart from protection function, corporate security involves also crisis management and risk analysis for the purpose of neutralizing threats, reducing consequences of their occurrence and ensuring a continuum of operations. Company managers have great responsibility in all of the above mentioned and they are required to have more understanding for the dynamics of global functioning of the environment for the purpose of more efficient management of corresponding risks (Kytte, & Gerard Ruggie, 2005). Security risks and threats constantly change their forms of occurrence and accordingly the company management are required to permanently innovate the system of protection corresponding to a newly incurred situation.

### 3.1. Types of threats

Notwithstanding its internal or ownership structure, every company is, within the process of its operations, subject to negative impacts which either directly or indirectly threaten its operations, property and safety of the employed. The Level and the scope of threats depend on the type of business dealt by the company, its location and the property at its disposal. The types of threat can be classified according to different criteria (Komarcevic, Pejanovic, & Zivanovic, 2012).

Considering threat sources and carriers, we distinguish: 1) internal, 2) external and 3) combined types of threat. When it comes to internal forms of threat, employees within a company themselves are carriers or direct executors of particular operations or activities which may have negative impact on its business operations. By performing planned and conscious activities or unconsciously, due to carelessness, negligence or ignorance, they can cause major or minor damage to the company. This can have negative impact on the company's overall operations, corporate image and reputation in the business world, which can be reflected in a decrease in property and profit of the company. Carriers of external types of threats are external actors. Most typically those are other companies, individuals from the world of business, various interest or lobbying groups or state institutions. Examples of such threats are as follows: unfair competition, market access disabling, raw materials or labour force. Combined types of threats which may appear are incurred by joint activities of external subjects and actors within the company.

Considering the areas that threats and risks come from, we distinguish six categories: 1) economic, 2) information, 3) social, 4) legal, 5) criminal, and 6) political threats. Economic threats are manifested through various restrictions, sanctions, limitations, arising from particular market changes, as a consequence of economic policy measures or decisions of the government or competent ministries. Social threats are manifested through workers' dissatisfaction with their social status, and in more difficult cases through strikes, protests, social disturbances or mass alienation, destruction or illegal seizure of property, capital assets and other valuables of the company by individuals or criminal groups. Due to certain legal threats in the form of the non-existence of certain legal provisions, inability to enter into or execute legal arrangements, in the form of agreements, investment programs, etc. certain threats can also come from political structures in the background of which we can find, inter alia, party interests.

### 3.2. Objects of protection

There are three objects of protection within a company (Komarcevic et al., 2012): persons, property and business. The category of persons includes: the employed persons (employees, executives and management). In addition to these, the objects of protection also include the unemployed such as the company clients (visitors, customers and service users) and the business partners (suppliers, contractors and other persons in contact with the company on various grounds). Property means everything that a company has achieved through its work and operations so far – its name, trademark, corporate image, corporate data and information, fixed assets, products, spare parts, raw materials, equipment, production process, intellectual property, inventions, patents, etc. as well as capital at its disposal. Company business denotes the entire work process (production or provision of services) aiming at survival on the market, on the one hand, and increase in profit as its strategic business goal, on the other hand.

### 3.3. Human resources

Human resources management is a complex process encompassing a number of activities needed to accomplish management tasks dealing with human resources, especially those dealing with employment, training, evaluation, rewarding of employees as well as the organization and the creation of safe, ethically acceptable environment for them (Dessler, 2007). Corporate security also, like other business functions within the company, requires proper activities dealing with human resources in order to adequately fill positions within departments.

Security director is the head of corporate security department and this person must have proper education, knowledge and experience in the field of security, required skills regarding primary management activities (planning, organizing, encouraging and controlling), and personal characteristics that suit the function that

this person occupies. All activities within the scope of corporate security function fall under his/her jurisdiction and he/she is reporting to the board of directors or to the managing director in person. Narrowly specialized personnel which is hired within corporate security department consists of experts in particular fields of security. They perform their work both in the field and at the office. Those are typically people employed to perform the following tasks: risk management, occupational safety and health service, physical and technical security services, information system and analytics security service. The employees in the sector of analytics are supposed to process data and form a database on the basis of information on security incidents and attempts of security violation.

#### 4. Conclusion

Corporate security as a modern business function aims at precluding and preventing all activities which may compromise the security of the company's property, personnel or reputation and accordingly violate its regular business operations. Apart from the protection function, corporate security includes crisis management and risk analysis for the purpose of neutralising threats, reduction of the consequences of their manifesting and ensuring business continuum. Human factor is the most important element of corporate security. Managers are responsible for hiring highly educated employees whom they are supposed to allocate to those jobs which suit their knowledge, competences and capabilities best. Only a satisfied employee can identify his/her individual goals with those of the organization. There are many ways to boost the employees' satisfaction, primarily through a transparent system of rewarding, adequate method of awarding and encouraging. Satisfied employees are a mirror of their company. This all can contribute to early detection and prevention of corporate crime, crime of white and blue collars, on the one hand, and the protection of business in crisis areas, property protection, protection of trade secret and intellectual property, on the other hand.

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## IMPORTANCE OF PREVENTION OF MONEY LAUNDERING IN BANKS FOR EFFECTIVE CORPORATE GOVERNANCE

**Abstract:** Globalization encourages economic development by linking national economies, expanding markets and enhancing communication through modern information technologies. By expanding the market, the conditions for the open trade and for removal of all barriers are thus created. However, this advantage in modern business and trade openness has its negative sides. One of them is financial crime. The system and structure of corporate risk management in banks needs to be well organized and to act accordingly in the prevention of money laundering and the fight against terrorism. The decisive role for the proper functioning of the banking sector has the effective corporate governance, with the Board of directors as the main factor in this process. Therefore, the aim of this paper is to point out the role and importance of the Board of directors in the creation of the policy and procedure „Know Your Client” and the prevention of money laundering, as well as of the policies against financing of terrorism. For the implementation of these policies, the responsibilities of management and employees must be clearly defined. This includes permanent education and awareness building for all employees on the importance of respecting the prescribed rules and procedures.

**Keywords:** corporate governance, financial crime, money laundering, „Know your client” procedure

### 1. Introduction

Globalization implies a constantly growing process of integration of national economies into a single global economy. George Ritzer defines globalization as a „transplanetary process that involves the raising flows of goods and services, people, capital and information in all directions, and structures created through the process of meeting these flows, presenting barriers and incentives for them.” (2010). Globalization has spurred the free flow of capital and goods, thus enabling the creation of new financial instruments, a greater volume of trading in these instruments and an increase in the liquidity of financial markets. The main goal of globalization is the open trade and demolition of all barriers. This openness has its own positive and negative phenomena. One of the negative phenomena is reflected in various forms of financial crime. Money from crime is transferred to legal business flows through „laundering”, which leads to undermining the stability, transparency and efficiency of the country’s economic system, economic disturbances, endangering economic reforms, reducing investment and losing the reputation of the state. Money laundering in the long run endangers economic and monetary stability at the global level, as financial difficulties are easily expanding from one country to another (Lekic, & Vapa–Tankosic, 2017a).

It is necessary to prevent the financial system from laundering „dirty money” (money obtained through illegitimate, criminal means). For the banking sector, it is important that the risk management system and the corporate governance structure are well organized and adapted to enable the fight against dirty money in the financial system (Bjelajac, 2011). Effective management of money laundering prevention is essential for raising awareness of corporate responsibility. This implies that top management should be well informed about key aspects of compliance in the area of money laundering prevention, risk management and activities that require full attention, political and program decision-making and other activities (Djurđević, & Ljutić, 2015). The Board of Directors of the Bank is obliged to adopt policies and procedures for knowing clients and prevention of money laundering

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and terrorist financing, whose implementation must clearly define the responsibilities and be divided into appropriate organizational units, Board of Directors, other management and other employees. The program for conducting activities of banks for the prevention of money laundering and financing of terrorism also implies permanent education and awareness of employees. In this way, ethically based behavior of business subjects and the social community develops not only with laws, but also with basic moral principles and standards (Fiat, 2012: 61). Efficiency and effectiveness of corporate governance can be achieved through the use of internal and external mechanisms. The most important internal mechanisms of corporate governance are: monitoring of management by the management board, and possibly supervisory board; appropriate incentive management systems; internal audit and control by major institutional investors. Among the external mechanisms, the most important are: the corporate control market; the market of products and services; the market of managerial services and legal regulation (Djordjevic, 2012).

## 2. Corporate governance

Corporate governance represents a complex and demanding activity that is posed before the management of a corporation. It involves the making of daily business decisions that should ensure the development and advancement of the corporation, as well as eliminating the high level of risk and uncertainty that are accompanying the modern market environment. There are numerous definitions of corporate governance. One of the most common defines corporate governance as „a set of rules, principles and mechanisms governing and controlling the operations of corporations” (Dmitrovic Saponja, Gravorac, & Milutinovic, 2014). Corporate governance includes a set of relationships between the company's management, its' board of directors, its' shareholders and other stakeholders (OECD, 2004). Corporate governance is a system of relationships defined by governance and management structures and processes in the society, which involves parties with different, and sometimes with opposed interests (Petrovic, 2016). Corporate governance includes both specific legal regulations by which is regulated, then general acts of the company itself, as well as good business practice of the corporation itself.

### 2.1. OECD Principles of Corporate Governance

OECD principles are accepted around the world as a framework and reference guidelines for addressing corporate governance issues. They were published in 1999 and revised in 2004. The principles of corporate governance suggest that “timely and accurate disclosure of all material-related issues relating to a joint stock company, including financial conditions, performance, ownership structure and management of a company” (OECD, 2004). The principles are designed to be concise, understandable and accessible to the international community. The principles cover the following areas: 1) providing the basis for an effective corporate governance framework, 2) the rights of shareholders and key ownership functions, 3) equal treatment of shareholders, 4) stakeholder roles, 5) disclosure of data and transparency, and 6) committee responsibilities (OECD, 2004). These principles can serve as an excellent reference point for international practice and are recommended to all those who are interested in understanding some of the principles embedded in national standards. A revised set of Organisation for Economic Cooperation and Development (OECD) Principles of Corporate Governance („the Principles”) has been published in 2015. The revised Principles maintain many of the recommendations from earlier versions as continuing essential components of an effective corporate governance framework. They also introduce some new issues and bring greater emphasis or additional clarity to others. Siems and Alvarez-Macotella (2017) conclude that there are various problems with the operation of the Principles as far as they are regarded as a universal benchmark, while they can be a useful ‘common frame of reference’ for the debate about corporate governance reform in academia and practice.

### 2.2. Corporate governance framework

The framework of corporate governance, in accordance with these principles, should promote a transparent and efficient market, be in line with the rule of law, and clearly articulate the division of responsibilities between different supervisory and regulatory bodies and law enforcement agencies. The OECD Corporate Governance Framework is based on four basic values (International Finance Corporation, 2011):



- **Impartiality.** The corporate governance framework should protect the rights of shareholders and ensure the equal treatment of all shareholders, including minorities, as well as those from other countries. All shareholders should be able to obtain adequate compensation in case of violation of their rights.

- **Obligation.** The corporate governance framework should recognize the rights of holders of interests laid down by law and to encourage active co-operation between corporations and stakeholders in creating wealth, jobs and sustainability of financially healthy societies.

- **Transparency.** The corporate governance framework should provide the appropriate level of publicity in the business, and in that regard, fully, truthfully and timely disclosure of information on all important issues concerning the joint stock company, including its financial status, performance, ownership and governance structure.

- **Accountability.** The corporate governance framework should ensure the strategic direction of joint stock companies, the effective monitoring of executive bodies by the board of the company, and the responsibility of the board towards society and shareholders.

Good corporate governance has a positive impact on the position of society through different mechanisms: better performance and efficiency, easier access to capital markets, better market position, and better reputation (Petrovic, 2016).

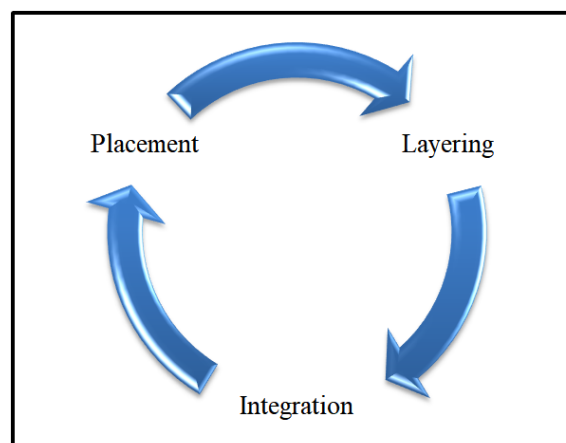
### 3. Prevention of money laundering

Given its size and importance in the overall financial sector, as well as the large number of clients and transactions that are being effected, the banking sector is exposed to the risk of money laundering and terrorist financing (Lekić, & Vapa Tankosić, 2017 b). Money laundering is a process of making illegally-gained proceeds into funds with an apparently legal source. This is a problem of an international character, since the process of money laundering itself occurs through the transfer of illegally acquired funds through international financial flows. The United Nations Office on Drugs and Crime estimated that the total amount of money laundering worldwide is between 2% and 5% of the world's total gross domestic product, or between 615 billion and 1.540 billion euros each year (Europol SOCTA, 2013).

#### 3.1. Money laundering process

Money laundering refers to the process of creating the appearance that large amounts of money obtained from criminal activity originated from a legitimate source. Some authors (Graham, Bell, & Elliot, 2003) define money laundering as a process that allows criminals to control assets derived from their activities, safe consumption, i.e. investing these assets, avoiding suspicion and detection, as well as confiscation or confiscation.

Figure 1: Money laundering process



Source: (Cox, 2014)



Money laundering includes activities aimed at concealing property gain obtained by criminal acts, including, depositing and other disposal of such objects (money, securities, etc.) creating an illusion of the legal acquisition of these objects (Slijepcevic, 2014). The money laundering process takes place in three basic stages: placement, covering or layering and integration as shown in Figure 1.

Investing is the physical placement of funds acquired through crime, in the case of many serious criminal acts, as the funds acquired through crime may have a form of cash, which the criminal wants to introduce into the financial system. The next stage in the money laundering process is the layering of money by transferring money from accounts and using a number of financial instruments around the world. The aim of this phase is to carry out as many financial transactions as possible in order to hide the connection between money and the criminal activity from which it originates. Integration implies the involvement of illegally acquired money into legal flows and its integration into the financial system. Given that the phases of the money laundering process are in practice intertwined in practice, it is difficult to distinguish them.

### 3.2. Money laundering and banking sector

Due to their importance in the financial system and the fact that they represent a large part of the financial market, banks have a special place in the system of prevention of money laundering and financing of terrorism. The reasons are multiple: they are technically well equipped and have a high qualification structure of employees; through the process of developing their analytical procedures are capable of early detection of suspicious transactions; assist the authority responsible for the prevention of money laundering to collect written evidence of suspicious transactions; taxpayers possess customer databases based on the performed identification (Fiat, 2012).

In the field of money laundering prevention and terrorist financing, the National Bank of Serbia (NBS) has a dual role: as a regulator and as a supervisor. The National Bank of Serbia prepares and takes part in preparation of some sectoral laws and by-laws aimed at, inter alia, prevention of money laundering and financing of terrorism through financial institutions supervised by the National Bank of Serbia. The role of the supervisor the NBS begins with the process of issuing of operating licenses, the National Bank of Serbia conducts the supervision process by monitoring whether regulations are properly implemented and by assessing the adequacy of the AML/combating the financing of terrorism (CFT) system in order to prevent possible abuse. If it identifies weaknesses or more serious irregularities in implementation of AML/CFT measures, the National Bank takes corrective measures or sanctions in line with regulations. In this regard, the NBS actively cooperates with domestic and foreign institutions.

When it comes to financial institutions, money laundering methods can be classified according to the stated phases. In the placement phase, typical examples of money laundering are: depositing deposits on client accounts, changing banknotes smaller for large denomination notes, investing in business activities where cash is most used as a cover for depositing dirty money in a bank, buying various forms of payment instruments. Examples of layering include the transfer of money abroad, the deposit of cash in international banking systems, and the integration phase refers to early repayment of loans, the payment of counterfeit accounts, a complex network of international transactions that prevent the tracking of the original source of funds. The following types of transactions are distinguished: smuggling, convert them into smaller and larger denominations, apparent borrowing, cash operations, virtual enterprises, and others (Fiat, 2012).

### 4. Risk management in banks

While conducting its business operation every bank encounters various types of risks that can cause negative effects on their business operations. Risk management in banking operations includes identification, measurement and risk assessment in order to minimize their negative effects on the financial result and capital of the bank. The bank is obliged to establish a separate organizational unit within its scope of risk management and by its acts prescribe procedures for identifying, measuring and assessing risks, as well as risk management. Money laundering and terrorist financing are associated with reputational, operational, legal and concentration risk. Reputational risk relates to the

possibility of the occurrence of losses due to adverse effects on the bank's market positioning, due to the unfavorable attitude of the public in regard to the operations of the bank, regardless of whether there is a basis for it or not. Operational risk is the risk of possible negative effects on the financial result and capital of the bank due to omissions (both unintentional and intentional) in the work of employees, inadequate internal procedures and processes, inadequate management of information and other systems in the bank, as well as the occurrence of unpredictable external events. Legal risk is a part of the operational risk which implies the possibility of adverse effects on the financial result and on the capital of a bank arising out of court disputes arising from failure to fulfill contractual and legal obligations, as well as due to penalties and sanctions imposed by the competent regulatory body. The risk of concentration is the risk that directly or indirectly arises from the exposure of the bank to the same or similar source of risk, or the same or similar type of risk (Lekic, & Vapa-Tankosic, 2017a).

The identification, assessment, monitoring and management of business compliance in banks (Fiat, 2012) is in the competence of Compliance. Compliance establishes a system of internal controls to ensure consistent compliance with laws and other regulations, includes independent verification of compliance by internal control, audit and external audit, designated by the compliance officer responsible for day-to-day compliance with laws and other regulations, ensuring appropriate training bank staff. Through the implementation of procedures such as establishment of an effective „know your client” policy, by paying attention to customers who perform or participate in high value transfers, by creation and maintenance of transaction reports and illegal references, banks can help in preventing money laundering.

#### 4.1. Know Your Client

Know Your Client Policy is contained in the practice of corporate governance processes. The purpose of the „Know Your Client” policy in banks is to serve the Bank's special needs, to reduce the possibility of various frauds and to exclude the possibility that the Bank will be used for criminal purposes (money laundering or terrorist financing), while at the same time ensuring a good reputation of the Bank and enhances the transparency of the relationship with clients. The approach of the Basel Committee's „Know Your Client” policy is much wider, not only includes the prospect of money laundering, but it is precisely that this policy that can be seen as a key element in the effective management of banking risks. The prevention measures of „Know Your Client” policy exceed the simple opening and keeping of account records and require banks to formulate a policy of accepting clients that includes „due diligence” of a larger scope for risky accounts, and proactive tracking of accounts related to suspicious activities. Inadequacy or absence of the „Know Your Client” policy and procedures can expose the bank to a serious risk, especially to the reputation, operational, legal and concentration risks. It is important to point out that all these risks are related. However, any of these may lead to significant financial costs for the bank (eg through withdrawal of funds by depositors, loss of interbank lines, initiation of criminal charges, investigation costs, freezing of funds and loss of credit). Essential elements of the risk management and control procedures of the „Know Your Client” policy in Banks should include: (1) the policy of accepting a new client, (2) customer identification, (3) constant tracking of high risk accounts and (4) risk management (Basel Committee on Banking Supervision, 2001).

When assessing and classifying the Bank, the following parameters shall be taken into account: the ultimate owner, the type of shares or share, the reason for the transaction, the country of origin and the purpose of the funds, deviations from the client's usual behavior, the nature of the business transaction and the expected origin of the funds. Banks must have as much information as possible about the client and his activities. Banks must not open and keep secret, anonymous and numerical accounts, accounts with fictitious names, as well as accounts without the full name of the owner, and they should not open an account via e-mail and the Internet. The Bank applies the „Know Your Client” policy rules by collecting all the necessary data in accordance with the Law. This activity includes: 1) the collection and storage of all documents relating to the balance and legal existence of clients and all necessary information about the client's business activities; 2) careful monitoring of the client's transaction with regard to its subjects and relevant partners; 3) collect, process and store information about individual transactions and transactions; and 4) keeping detailed and precise documentation about clients and their transactions.

According to Official Gazette, decision on the minimum content of the „Know Your Client” procedure in Article 2, paragraph 3 defines unusual transactions as „transactions that are not in accordance with the usual practice, including unusual frequency of money deposits (inflows) and/or withdrawals of funds from the account, and complex transactions whereas significant amounts are deposited or withdrawn, transactions involving a larger number of participants, transfers or other transactions that are economically or legally not justified, including transfers that are not in accordance with the registered activity of the client, while suspicious transactions are those transactions in which there are grounds for suspicion of money laundering and terrorist financing, and are recognized on the basis of indicators established by the list that have been elaborated by the taxpayer in accordance with the Law.“

#### 4.2. Monitoring and analysis of banks' activities in regard to risk management

In order to improve supervision, since 2006, the National Bank of Serbia has established the practice of indirect monitoring and analysis of banks' activities in the area of money laundering and combating terrorism financing. Monitoring and analysis is performed on the basis of data that banks, twice a year (April-September of current year and October of current year – March of the following year), submit in the form of the Questionnaire on the Bank's activities in the area of risk management of money laundering and combating terrorist financing (in the following text: Questionnaire). The main goals of formulating and analyzing the Questionnaire are: to examine the situation in the process of identifying, measuring and managing the risk of money laundering and terrorist financing in the entire banking system on a six-month level; referring to the implementation of established rules and the „Know Your Client” principle; indirect monitoring of the development of the established risk management system for money laundering and terrorist financing; identifying weak points and timely pointing the potential risk exposure to banks (National Bank of Serbia, 2017).

Twenty-eight banks operating in the Serbian banking sector have submitted the NBS filled-in questionnaires in the due time, while the two banks did so after the deadline (National Bank of Serbia, 2017). All banks, except one, are in accordance with the Decision on Guidelines for the Assessment of Money Laundering and Financing of Terrorism, adopted by the NBS, have prepared a risk analysis and an assessment of exposure to the risk of money laundering and terrorist financing, taking into account the results of the National Monetary Risk Assessment. Depending on the estimated degree of exposure of the client to the risk of money laundering and terrorist financing, banks classified their clients as low, medium and high. A comparative overview of the number of parties' structure according to the estimated degree of risk and the actions and measures applied, is shown in Table 1.

Table 1: Structure of the parties in the banking sector according to the degree of risk and the implemented actions and measures for the period April-September 2017

Risk level	Number of parties	% share	Applied measures	Number of parties	% share
low	5,351,704	42.29	simplified	1,116,500	8.82
medium	7,230,591	57.13	general	11,451,523	90.52
high	73,148	0.58	reinforced	83,036	0.66
			without measures	4,384	
	<b>12,655,443</b>	<b>100</b>		<b>12,655,443</b>	<b>100</b>

Source: (National Bank of Serbia, 2017)

Banks are obliged to apply general, simplified or reinforced actions and measures in regard to knowing and monitoring of its' clients. In the period of this analysis, 90.52% of the parties in the banking sector applied general actions and measures, the reinforced ones were implemented in 0.66% of the parties, and simplified in 8.82% of the parties. Out of the total number of cases where simplified actions and measures in regard to knowing and monitoring of its' clients are applied, only two banks account for 996,740 clients, while other banks apply them to 119,760 clients. The data provided further show that 13 banks apply simplified actions and measures for knowing and monitoring the clients to all their

clients that have been classified in a low-risk group, while five banks do not apply these measures at all, while 12 does so only for a relatively small proportion of clients in the group of low-risk (National Bank of Serbia, 2017).

All banks have replied affirmatively to the question whether their internal acts envisaged the frequency of monitoring of clients, according to the level of risk they have been assigned. Banks have declared that they terminate the business relationship with the client because of the inability to conduct actions and measures of knowing and monitoring the party, and they also make an official note in writing and consider whether there are grounds for suspecting money laundering or financing of terrorism in cases where they refuse the establishment of a business relationship or execution of a transaction for the stated reasons. As per the question in the Questionnaire, asking them if whether they had requests for opening anonymous accounts, savings books on the code or the issuer, etc. in order to hide the identity of the client, all the banks replied negatively. All banks have an information system that recognizes several interconnected cash transactions of the same client whose total value is equal to or exceeds the amount of 15,000 euros. All banks have confirmed that internal acts have envisaged the frequency of monitoring of transactions performed by clients classified as at the highest risk, as well as the periods of monitoring of interconnected cash transactions. According to the answers received, 11 banks monitor connected transactions at least once during the day, 8 banks in the period of a week, 3 banks in a period of 15 days, 4 banks in the period of up to 30 days, 1 in the period up to three months, 1 in the period up to six months, one in a period of one year, while one bank monitors connected transaction depending on the level of risk over a longer period of time.

All banks have compiled a list of individuals and entities in relation to the financing of terrorism, using as a source for this list of the United Nations Security Council list, the EU list and the OFAC list. In the Questionnaire, 29 banks indicated that they used special software for identifying suspicious transactions or persons, while only one bank declared that it did not use the software. The Banks also said they included in their software the indicators from the List for the Identification of Suspicious Transactions as well as the List of Terrorism Indicator Indicators, published on the Administration for the Prevention of Money Laundering website. Table 2 shows the number of indicators for identifying suspected money laundering transactions published on the website of the Administration for the Prevention of Money Laundering, which have been implemented in the software of 27 banks.

Table 2: Number of indicators involved in money laundering

Number of indicators for banks	Number of banks
Less than 10	6
10–19	14
20–29	6
30–37	1

Source: (National Bank of Serbia, 2017)

According to the data from the Questionnaire, 27 banks stated that they have included in their software indicators for identifying suspected transactions in relation to financing of terrorism, as shown in Table 3.

Table 3: Number of indicators included in the financing of terrorism

Number of indicators included in the financing of terrorism	Number of banks
Less than 5	17
5–10	7
More than 10	3

Source: (National Bank of Serbia, 2017)

In addition, 22 banks listed 333 other indicators (from their own list of indicators) that have been included in the software for identifying suspicious transactions and/or persons as shown in Table 4.

Table 4: Number of included indicators developed by the Banks

Number of indicators included in the financing of terrorism	Number of banks
Less than 5	4
5–9	6
10–19	9
20–25	0
50	3

Source: (National Bank of Serbia, 2017)

Regarding the other indicators included in the software, Banks most often cite indicators that are recognized based on experience in tracking transactions and business operations of the parties, and can be expressed in the programming language and as such be included in the information system. Compared to the previous period, the number of their own indicators is increased by nine, which shows that banks in risk management are increasingly engaged in the improvement of the quality of performing anti-money laundering and terrorist financing activities without the demands of regulators. It is necessary for all banks to further improve the system of monitoring transactions and clients in order to timely perform identification, risk assessment and apply adequate actions and measures in regard to their clients.

## 5. Conclusion

The Board of directors plays an important role in the efficient management of the functioning of the banking sector. OECD principles are accepted around the world as a framework and reference guidelines for addressing corporate governance issues. The corporate governance system consists of the interdependence of the established responsibilities and powers of the participants that constitute the control and control component. In order to reduce the risk of money laundering and the vulnerability of the banking sector, it is necessary to strengthen the implementation of an approach based on risk assessment of money laundering, internal and external audit systems related to risk management processes, as well as strengthening corporate governance and compliance function in banks. All banks have developed policies, procedures, instructions and other internal acts regulating the area of money laundering prevention and financing of terrorism. The decision on the minimum content of the „Know Your Client” procedure requires from the banks to elaborate this policy, as well as the content of this procedure. Also, all employees in the bank, responsible for the credit exposure, need to know their clients and their business operations well, as well as to build mutual trust. This enables the bank to gain a better position in meeting the needs of its clients. The „Know Your Client” policy requires banks to constantly deepen their knowledge of their clients in a joint business relationship. Managing customer base is a process that requires increased transparency and clarity, compliance with standards and regulatory measures in an effort to reduce perceptions of risk in business. The „Know Your Client” policy and practice policy is increasingly important in banks to minimize the risks associated with transactions of suspicious clients that could significantly impair the image of the institution. For the implementation of these policies, the responsibilities of management and employees must be clearly defined. This includes permanent education and awareness building for all employees on the importance of respecting the prescribed rules and procedures for ensuring effective corporate governance.

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## **EUROPEAN ENERGY SECURITY AND LARGE INFRASTRUCTURE PROJECTS - GEOPOLITICAL, LEGAL AND ECONOMIC ASPECTS OF LARGE ENERGY INFRASTRUCTURE PROJECTS**

**Abstract:** On 27 March 2018, Germany approved the construction and operation of the Russian Nord Stream 2 gas pipeline. The Nord Stream operator said that it expected that other four countries along the route of the undersea pipeline - Russia, Finland, Sweden and Denmark – will issue permits in the coming months. Our paper on the subject concludes as follows. Firstly, adequacy of regulation varies significantly between states, and not only between developed and underdeveloped economies and legal systems, but also between states that are both generally regarded as sophisticated in bringing about and implementing the rule of law. Secondly, technological advances have increased the complexity of such large energy projects and made them intrinsically more complex for regulators to grasp and regulate. Overall, it appears that the relevant regulation seems to be lagging the Energy Sector's development, creating regulatory "gaps". Furthermore, it is important to suggest caution in avoiding any pollution of legislative and legal processes by political agendas of various states and political forces at play as illustrated by the Russia – Ukraine gas transmission disputes, the Kurdish issue in Turkey affecting complaints on BTC and so on. On the other hand, the BTC case also illustrates an example where a foreign Oil & Gas consortium may have fallen accountable for gaps in the local legislation and its enforcement or lack of it. Finally, the Energy Charter Treaty does not alleviate the concern in the investment community about the stability of the relevant rules and regulations in many of the developing countries. However, it is unclear if a potential supra-national frameworks that would not only transcend national borders responding to globalisation, but would also account for the ever increasing complexities of new technologies in the Energy sector, would provide an adequate solution.

**Keywords:** energy security, large infrastructure projects, geopolitics;

### **1. European Energy Security and Large Infrastructure Projects**

On 27 March 2018, Germany approved the construction and operation of the Russian Nord Stream 2 gas pipeline. The Nord Stream operator said that it expected that other four countries along the route of the undersea pipeline - Russia, Finland, Sweden and Denmark – will issue permits in the coming months. (Reuters, 2018) With the significant technological advances in recent times, there has been a significant improvement in the distances that pipelines can carry oil and gas, both offshore and on land. This, together with, very often, geopolitical factors have improved the possibilities for exporting oil and gas from isolated locations and significantly increased the number of long-distance and transboundary pipelines. The global energy industry has become increasingly dependent on the transportation of oil and gas through these pipelines. It is estimated that more than 50% of world's oil production is traded across at least one border. Historically, Gazprom's piped gas has supplied 35% of European gas.

With a long-standing and consistent push to bring more LNG supply to Europe, and US Shale in particular, Russian gas may be taking a defensive position, resulting in lower gas prices for European

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consumers? Gazprom's opex is amongst the lowest globally, its estimated average production costs are only US\$0.15/mcf, maintenance capex amongst the lowest in Europe at US\$0.35/mcf, taxes at US\$0.5/mcf, and transportation costs of US\$1.5/mcf. Russia's pre-tax operating cash break-even point at the point of delivery in Europe is just US\$1.5/mcf versus US\$4.5/mcf for marginal (Australian and US) LNG. Ergo, while the aggressive excess LNG supplies to Europe coupled with spare regasification capacity in Europe and switching from gas-fired to coal-fired power plants in Europe, may lower European gas prices, the trends are unlikely to reduce Gazprom's market share significantly in the near term. The side effect is that US and other overseas LNG producers may well suffer in case of a gas price below US\$4.0/mcf. Goldman Sachs's recent report explaining the "Story of Europe's New Gas Order" compares the price of Russian gas at US\$1.5/mcf versus US\$2-3/mcf of other pipeline gas, US\$3-3.5/mcf of low cost LNG producers and US\$4.4.5/mcf of marginal LNG (US and Australia).<sup>2</sup> The implications are obvious, Russia's cost position is strong enough to compete effectively against all other gas players and sustain its market share, with lower gas price bound to hurt most other producers, not just Gazprom, in the process.

## 2. Transboundary Pipelines and International Law

The legal regime which is applicable to transboundary pipelines is in constant development in order to match the needs caused by commercial practice. Two fundamental models under public international law that can be used as the framework for a transboundary pipeline project are the Interconnector model and the Unified Project model. (Galleher, Kenny, 2009) The Interconnector model is in fact two individual pipelines that are connected together at the common boundary between two States. Each State retains separate and distinct sovereignty over that part of the pipeline that lies within its territory. (Sach, 2018) National laws are applied separately to the relevant part of the pipeline. There is no obligation for a n interstate agreement for a n Interconnector model pipeline, although the commercial execution of such a project will be very much simplified by a creating such an agreement. The applicable legal regime applicable will be the domestic laws of the relevant States, and any coordination can be accomplished by way of a host government agreement. (Energy Charter, 2006) The Unified Project model is a proper international pipeline. It is a single pipeline that crosses one or more boundaries. A single legal regime is created between the relevant States that applies to the entire length of the pipeline and all coordination issues are resolved by way of an IGA. (Galleher, Kenny, 2009) This model has many other advantages for commercial actors and governments in simplifying the rules to be applied to the construction and maintenance of the pipeline. The most significant difference between the two models is the issue of national jurisdiction over the pipeline. In the Interconnector model, there must be a prior agreement as to the location of the common boundary. On the other hand, the Unified Project model enables countries to by-pass sovereignty issues and isolate territorial and boundary disputes, without prejudicing a State's territorial or boundary claims. (Galleher, Kenny, 2009)

A distinction needs to be drawn in the international law applied to transboundary pipelines which are located off-shore and those which are land-based. The United Nations Convention on the Law of the Sea (United Nations Convention of the Law of the Sea - UNCLOS) has a number of provisions that deal with transboundary pipelines. Article 79 of UNCLOS states that, subject to certain conditions all States are entitled to lay submarine pipelines on the continental shelf (i.e., beyond the usually 12-mile territorial sea limit) and that a coastal State may not impede the laying or maintenance of such pipelines (Ibid.) The consent of the coastal State is therefore required for the delineation of the particular course of a seabed pipeline, but not for the actual construction of the pipeline. Intra-field pipelines connecting the sub-sea well to the production installation, or bringing oil and gas onshore, are often regulated by interstate agreement. For example, Agreement between UK and Belgium relating to the transmission of natural gas through a pipeline 1998 (UK - Belgium Agreement, 1998) which provides for a split jurisdiction between boundaries of the states, the operator has to be given approval by both States, safety measures to be determined by each State. As land-based transboundary pipelines, generally, do not have an international legal regime equivalent to UNCLOS, each particular project depends on the its particular circumstances including: commercial tariffs, government fees, safety inspection, environmental protection, quality control etc.

The EU has adopted a directive (EC Council Directive 91/296/EEC (1991)) which allows for the free and unimpeded transit through the EU. Although the primary aim of this was to establish a single energy market, still, it was a significant step forward. Energy Charter Treaty (Energy Charter Treaty) is an important element in the discussion of transboundary pipelines. The ECT is the only multilateral instrument of general application that creates a general legal framework for securing unimpeded transport of energy products through pipelines. 46 States have ratified the ECT and, although it is Euro-focused, it has members outside Europe. The ECT deals with several aspects of transboundary pipelines. It imposes an obligation on all member States to facilitate the transit of energy materials and products without distinguishing as to the origin, destination or ownership of products and without any unreasonable delays, restrictions or charges. It also imposes a minimum standard on transit States by providing that they must impose the same treatment and conditions to their own imports and exports. (IBID) One of the most important provisions of the ECT is Article 7, which deals specifically with the issue of energy transit. Article 7(6) of the ECT imposes an obligation on the State parties not to interrupt or reduce the existing flow of energy in the event that a dispute arises over such transit prior to the conclusion of the dispute resolution procedures set out in article 7(7). (Ibid.) This issue is perhaps best illustrated by the infamous dispute between Russia and Ukraine in transporting Russian gas to the European market which reoccurs almost every winter and affects energy security of a large part of Eastern Europe, as well as it affects gas prices in Europe as a whole. The dispute, industry literature suggests, has also resulted in the Ukrainian Court imprisoning the former Ukrainian PM Yulia Tymoshenko for the signing of gas agreements with Russia in 2009, in which national energy company Naftogaz Ukrainy sustained 1.5-billion-hryvnia (\$187 million) of losses. In October 2011, the European Union expressed consternation at the result of the Court case, and a spokesperson for the European Foreign Policy Service said that the EU could revise its policy with regards to Ukraine in connection with the verdict handed down to Tymoshenko. (Interfax Global Energy Services, 2011)

### 3. Nord Stream 1 pipeline and transboundary EIA under Espoo Convention

To, among other reasons, avoid the problem in communication with Ukraine, Russia has built the Nord Stream 1 - a long-distance gas pipeline, 1224 km long. It provides for the export of natural gas from the Russian Arctic to the increasing European Union market demand. (Götz, 2009) Apart from land-based pipelines in Russia and Germany, the project includes underwater gas lines from Vyborg to Greifswald. (Ibid.) This project has raised a number of issues relating to its impact on the region's energy security and geopolitics. Several treaties are relevant relating to the Nord Stream project from the perspective of environmental protection. (Redgwell, 2009) Also, there is an obligation to undertake an environmental impact assessment where certain activities are likely to have a significant adverse effect on the environment. These are contained in the Voluntary Guidelines on Biodiversity-inclusive Impact Assessment (UNEP/CBD/COP/8/27/Add.2, 2006) of the Convention on Biological Diversity and Principle 17 of the Rio Declaration. (A/CONF.151/26(Vol I), 1992) These instruments are non-binding and they reflect the customary nature of obligations to undertake the environmental impact assessment.

An important Convention is the 1991 Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention, 1991). All Baltic Sea States have ratified the Espoo Convention, except Russia which is a signatory State and in 2006 agreed to act as a party of origin to the extent possible under its legislation in relation to Nord Stream. (Chapter 3: Legal Framework and Public Consultation' in 'Nord Stream Espoo Report', 2009) This was very important as other applicable Conventions, for example, 1992 Helsinki Convention do not contain specific obligations that are appropriate for undertaking a transboundary environmental impact assessment. (Zellman, Guayo) Under the Espoo Convention, regarding the environmental impact assessment, the Nord Stream project has five parties of origin (Russia, Finland, Sweden, Denmark and Germany) and nine affected parties (Poland, Lithuania, Latvia and Estonia). (Nord Stream Espoo Report, 2009) Compared with the previous examples, the approach adopted in connection with the Nord Stream

project is innovative. It has been ensured that the Nord Stream consortium conducts an environmental impact statement for the entire Nord Stream pipeline in addition to the traditional assessment of the individual sectors on the basis of national EIA legislation. (Zellman, Guayo) Still, only the domestic authorities of the five parties of origin had the right to decide whether to grant or withhold their permission for the project in regard to their territorial sea and EEZ. The judgment was dependant on whether the environmental impact assessment concerning the sector of the pipeline under the jurisdiction of the particular State was in accordance with its national environmental impact assessment legislation and the corresponding rules. (Fact Sheet: The Nord Stream Pipeline Project) Nevertheless, it is not a strict obligation to consider all locational alternatives as the Appendix II(b) of the Espoo Convention is limited to reasonable alternatives. (Espoo, 1991) Therefore, consistent with the Espoo Convention, each party of origin has to conclude which alternatives are to be examined within its jurisdiction, including land-based alternatives. However, no such requests were made during the scoping phase of the assessment. Hence, subsequently it became difficult to argue for the States concerned that the environmental impact statement for the entire Nord Stream pipeline was incomplete because it did not take into account land-based alternatives. (Zellman, Guayo) Nonetheless, the European Parliament criticised the transboundary environmental impact assessment because the alternatives for the project's route were apparently not studied adequately. (European Parliament, Resolution A6-0225/2008)

#### **4. Nord Stream 2 approval by the German Federal Maritime and Hydrographic Agency, and European Commission's anti-trust case against Gazprom**

Russia, Algeria and Libya have access gas export capacities, which could be utilized if the countries could increase its production levels. Russia is trying to further expand its export capacity through Nord Stream 2 (to increase exports to Germany and North West of Europe) and Turkish Stream (to increase exports to Turkey and Central and Eastern Europe), which would increase Russia's gas exports to Europe by > 30%. Gazprom's desire is to complete the pipeline projects by 2019 or 2020. This deadline is in line with Russia's inability to redirect its gas exports to China earlier than 2020-2022, due to lack of export infrastructure in the East.

On 27 March 2018, Germany approved the construction and operation of the Russian Nord Stream 2 gas pipeline. According to Deutsche Welle article dated the same day, "the US and EU's Eastern members fear the gas pipeline will empower Russia". (Deutsche Welle, 2018) The German Federal Maritime and Hydrographic Agency's approval of the 31-kilometer section of the pipeline in Germany's exclusive economic zone means that all legal obstacles have been cleared. "We are pleased that all necessary permits are now in place for the German route section", said Jens Lange, permits manager Germany at Nord Stream 2, a subsidiary of Russian gas export monopoly Gazprom. Construction of the German Section of the North Stream 2 pipeline is to start this Spring. Germany, the largest consumer of Russian gas in Europe, views the pipeline as an economic issue financed by five Western firms and has dismissed geo-political objections by US and certain EU countries. Two German companies, Uniper and Wintershall, financially back the Nord Stream project 2. (Deutsche Welle, 2018)

The European Commission is facing a dilemma of how to deal with Russia as it handles an ongoing anti-trust case against Gazprom, while also expressing disapproval of Moscow's foreign policy. Brussels is likely to announce a final settlement on the case soon. The mainstream press expects a contentious decision, but no fines imposed. (Ibid.)



## 5. BTC pipeline project - legal regime and its implications

The Baku-Tbilisi-Ceyhan (BTC) oil pipeline is 1,760 kilometre long and runs from the offshore oil fields in the Caspian Sea near Baku in Azerbaijan, through Georgia's national park close to Tbilisi, finishing south of Ceyhan on the southern shores of Turkey on the Mediterranean at a tanker terminal, where the oil is loaded on to tankers that transport the oil to Western Europe. The legal regime of the project consists of a number of agreements, which govern the construction, development and operation of the pipeline, and the social and environmental standards which have to be complied with. (Baku-Tbilisi-Ceyhan Pipeline: Environmental and Social Action Plan) When it comes to compliance with the OECD Guidelines on Multinational Enterprises, (OECD Guidelines on Multinational Enterprises, 2011 edition) the most important agreements are: The Intergovernmental Agreement (IGA) (Legal agreements, 2018) which is a trilateral agreement between Azerbaijan, Turkey and Georgia and was signed on 18 November 1999. The IGA affirms each country's support for the pipeline and sets down several mutual undertakings to ensure the project's construction and operation. The IGA has the status of an international treaty. The next important agreements are The Host Government Agreements (HGAs). Those are individual agreements between BTC Co and each of the countries. They define the capital and resources that each signatory is to provide to the project, the timetable by which the project would be developed, the standards that it must meet, and the domestic legislation, both current and future, to which the project is subject. (Baku-Tbilisi-Ceyhan Pipeline: Environmental and Social Action Plan) The HGAs are incorporated into domestic law in all three host countries and override all domestic law apart from the constitutions where such law conflicts with the terms of the HGAs and the IGAs. (Ibid)

In April 2003, six environment and human rights groups lodged a Complaint against BP in relation to the BTC project under the OECD Guidelines for Multinational Enterprises. (Ibid, Chapter 5.2.) The complaint alleged that BTC Co failed to consult satisfactorily with affected communities on relevant matters. (Violated international corporate social responsibility rules, 2018) In its revised Final Statement, the OECD NCP finds BP/BTC Co in breach of Chapter V paragraph 2(b) of the OECD Guidelines (OECD Guidelines, Chapter IV), which recommends adequate and timely consultation by multinationals with local communities impacted by corporate operations. It also questioned the competence of the due diligence undertaken by BP/BTC Co in relation to human rights, noting that *"concerns over potential human rights abuses by local security forces had been identified in the negotiation of the overall BTC framework"* and that *"the company's due diligence preparations could have identified and mitigated an additional risk of intimidation by local partners"*, particularly in the northeast of Turkey, where the pipeline passes through an area *"characterised by a significant Kurdish population and ethnic tensions"*. (Ibid.) Also, the NCP ruled that the company's response to allegations of intimidation *"does not seem to accord"* (Ibid.) with its legally binding commitment to implement the Voluntary Principles on Security and Human Rights. (Voluntary principles, 2018) Although both the OECD Guidelines and the Voluntary Principles on Human Rights and Security are not legally binding instruments, BTC Co is under contractual obligation to comply with them under the Joint Statement that the company signed in 2003 with Azerbaijan, Georgia and Turkey. (Joint Statement on the Baku-Tbilisi-Ceyhan Pipeline Project, 2003) The BTC Co. and the governments also committed to implement the Voluntary Principles on Security and Human Rights (Voluntary principles, 2018) and Paragraph 9 of the Joint Statement affirms that it *"constitutes a Project Agreement as defined under the BTC IGA and HGAs."* It is *"binding on all parties"* (Ibid) and as *"the status of national law"*. (BTC Co, 2003) The breach of the OECD Guidelines upheld by the NCP is material and also constitutes a clear breach of BTC Co's obligation under the Joint Statement to ensure that all project activities are *"consistent with the Guidelines in all material respects"*. (Joint Statement on the Baku-Tbilisi-Ceyhan Pipeline Project, 2003) The breach of the OECD Guidelines also constitutes a breach of the Host Government Agreement in Turkey, the country where the breach occurred, since *"the Joint Statement is a Project Agreement under the Host Government Agreements (HGAs)"*. (Ibid.) BTC Co confirmed that such a breach would render it liable to *"any third party for breach of standards set forth in the HGA"*. (Baku-Tbilisi-Ceyhan: BTC Briefing Note on Environmental Standards, 2003) Those who were intimidated by security forces and whose allegations of intimidation were not investigated, or who felt unable to challenge agreed compensation terms because

of the company's failure to adequately safeguard "*against the risk of local partners undermining the overall consultation and grievance process*", (UK National Contact Point, 2011) may be in a position to pursue tort claims against BTC Co.

## 6. Energy Charter Treaty

Energy Charter Treaty has its origins in the 1990 Lubbers Plan, named after the Prime Minister of Netherlands who took the early initiative. There were two main concerns: the first was to secure the long term energy needs of Western Europe, and the second to assist the countries of Eastern Europe in their transition to market economies. Another important concern was environmental problems associated with energy supply which extended beyond national boundaries. (Wälde, 1996) The final signatories to the Treaty included more or less all of the countries of Europe, all of the republics of the former Soviet Union, Japan and Australia. Firstly, a European initiative, eventually evolved into a multilateral investment and trade treaty with implications well beyond Europe. Wälde states that liberalisation, privatisation, deregulation and national competitiveness are now the key paradigms of the currently dominant view in economic policy and legislation. (Ibid.) The Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects (The Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects, 1994) was negotiated, opened for signature and entered into force concurrently as the Energy Charter Treaty. PEEREA requires its participating states to formulate clear policy aims for improving energy efficiency and reducing the energy cycle's negative environmental impact. It has an aim of strengthening the rule of law internationally in relation between member states and investors, and domestically by signalling 'good governance' in member states. (Konoplyanik, Wälde) It provides for a more legally ordered institutional international environment. However, it does not provide any particular method to force countries which are not interested in developing such rule of law and it does not force energy flows between unwilling suppliers or consumers. It does, to a certain extent, facilitate transactions, investment and trade flows which are desired by providing a more favourable legal environment – but it cannot compel or steer such transactions. In essence, it is facilitative for investment and transactions, but no more. (Ibid.) Latest incidents of direct or creeping expropriations in various countries have raised concerns about investments in this sector which may go further than the borders of the countries involved. Moreover, the economics of many sustainable clean energy projects are based in part on local governmental subsidies and incentives and oblige that those are kept in the form determined at investment commencement. There is significant concern in the investment community about the stability of the relevant rules and regulations in many of the developing countries. (Rubins, Kinsella, 2005)

## 7. Conclusion

Firstly, the adequacy of regulation varies significantly between states, and not only between developed and underdeveloped economies and legal systems, but also between states that are both generally regarded as sophisticated in bringing about and implementing the rule of law. Secondly, technological advances have increased the complexity of such large energy projects and made them intrinsically more complex for regulators to grasp and regulate. Overall, it appears that the relevant regulation seems to be lagging the Energy Sector's development, creating regulatory "gaps". Furthermore, it is important to suggest caution in avoiding any pollution of legislative and legal processes by political agendas of various states and political forces at play as illustrated by the Russia – Ukraine gas transmission disputes, the Kurdish issue in Turkey affecting complaints on BTC and so on. On the other hand, the BTC case also illustrates an example where a foreign Oil & Gas consortium may have fallen accountable for gaps in the local legislation and its enforcement or lack of it. Finally, the Energy Charter Treaty does not alleviate the concern in the investment community about the stability of the relevant rules and regulations in many of the developing countries. However, it is unclear if a potential supra-national frameworks that would not only transcend national borders responding to globalisation, but would also account for the ever increasing complexities of new technologies in the Energy sector, would provide an adequate solution.



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## RUSSIAN ENERGY PROJECTS IN EUROPE: GAP OF SAFETY REALIZATION AND PROTECTION UNDER THE CONDITIONS OF COMPETITIVE GEO-ECONOMICAL ENVIRONMENT

**Summary:** In their publication the authors are concerned with a problem of safety realization and protection of supply of Russian energy commodities to European markets that is actually intended for Europe countries and Russia. The authors focus on the analysis of Russian proposals in energy industry of European economy in connection with implementation of ambitious gas transmission projects “Nord Stream-2” and “Turkish Stream”. The purpose of publication is the accentualization of advantages of Russian proposals for Europe taking into account modern world economic processes and increasing geo-economical competition in the global energy market. The methodological foundation of publication is: structural-functional method, politico-social model building, scenario approach and scenario projection method, method of political texts analysis. In summary the authors make a conclusion about positive affect of implementations of Russian energetic initiations to European economy and practicability of European importers to follow their own economic interest if accepted by political decisions in energy management. The publication is prepared using up-to-date factual material and includes problem critical analysis.

**Key words:** geo-economy, global market of energy resources, energetic gas transmission communications, business competition and safety.

Modern global economy in spite of impressive last high-tech breakthroughs mostly remains energy intensive. Huge economic complexes need proper fuel quantity for continuous industrial activity. Aggregate energy consumption of only five industrial production top countries has a colossal value – more than 7.340 million tons of oil equivalent (or 50 billion 214.2 million barrels of oil) annually, including 3.123 (21 billion 365 million barrels) for China, 2.204 (15 billion 078 million barrels) – for USA, 0.884 (6 billion 048 million barrels) – for India, 0.692 (4 billion 735 million barrels) – for Russia, 0.437 (2 billion 989.5 million barrels) – for Japan (*Статистический Ежегодник мировой энергетики, 2017*). However the main sources of energy, as in the middle of XX century, are oil, coal and natural gas. For example, according to the International Energy Agency, proportion of consumable energy sources in the world is the following: oil - 179 exajoules EJ, coal - 155 EJ, natural gas - 116 EJ, biomass - 54 EJ, nuclear fuel - 27 EJ, hydro-energy - 13 EJ (*International Energy Agency, 2015*).

At the same time most of world countries have do not have their own energy sources in sufficient quantity. Thus, coal reserve in China per capita is compatibly low and is equal to approximately 1/2 of worldwide average, but oil and natural gas reserve is only 1/15. The European Union together with Norway and Switzerland has nearly 17% of worldwide energy consumption but has no major deposits of energy commodities. In such countries domestic deficiency of energy commodities is satisfied by import. This results in the European Union getting not less 53% of all used energy products from external sources

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(Eurostat, 2013). In the process of growing energy consumption the European Commission experts predict figure growth to 65% in 2030. (Council of the European Commission, 2006). Nowadays in several positions Eurozone is practically pure net importer, for example, in connection with oil and natural gas. The European Union imports 82% of consumed oil and 57% of consumed natural gas. It is expected that next 25 years the proportion of imported oil will increase to 93% and the proportion of imported gas - to 84% (Cohen, 2007).

Economic growth demands force energy commodities importer to search and to find profitable and reliable partners among suppliers. Nowadays for the European Union these are Russia, Norway, Middle Eastern countries (Qatar, Saudi Arabia) and Northern Africa (Algeria, Libya, Turkey), which are the greatest energy exporters in Europe. In addition to that, the value of attractiveness of partner proposal, in other words, optimality of combination of product price and reliability of delivery to consumer is not the same for the European Union. For example, Norwegian natural gas is more expensive because of the necessity of liquefaction for transportation and high cost of offshore oil output in total. Furthermore, according to geologist computation Norwegian natural gas can be fully exhausted to 2020 (Hauge, 2016). Blue flame natural gas from the Middle East and Northern Africa is transported to Europe in liquefied state by means of specialized tanker fleet that also gives additional cost to raw material. It is necessary to acknowledge political instability in production countries of East that endangers supply security from this region.

In given aspects business competition acts objectively in favor of Russia that has strategic advantages in comparison with other natural gas suppliers in Europe. They are evidence as:

- a) Resources wealth (by natural gas reserves Russian Federation has the first place in the world. Its explored reserves in 2017 are estimated approximately in 46.7 trillion cubic meters. It is nearly 32% of world reserves) (*Российский статистический ежегодник/Russian Statistical Yearbook, 2017*);
- b) Branched pipelines network built in several cases even in Soviet times ("Urengoy-Pomary-Uzhgorod" with a capacity of 32 billion cubic meters per year, "Yamal-Europe" with a capacity of 30 billion cubic meters per year, «Nord Stream» with a capacity of 55 billion cubic meters per year) (*Российский статистический ежегодник/Russian Statistical Yearbook, 2017*);
- c) Territorial dominating that is expressed in a proximity to market channels. The last factor is particularly topical, because it is known that the shorter transport communications the lower price of supplied product. As Russian pipeline gas costs much lower than Qatar or Norwegian liquid gas for European countries. According to the data from 2015, natural gas price from Russia, for example, for Baltic states and Poland was within the range 237-242\$ for a thousand cubic meters, from Qatar - 319\$, from Norway - 350\$ (*Ежеквартальный бюллетень "Нефтегазовый комплекс", 2015*). As for the reliability and stability of natural gas and oil supplies from Russia to Europe, that there were no events of completed contract breaching at any time of Soviet/Russian – European relations. All specified circumstances let Russia provide stable position on European energy market and gain reputation of a reliable partner. Today the countries of European Union cover 40% of their natural gas demand and 32% of oil demand due to Russian import. (Кулагин, Митрова и др., 2015). In the European Union Russian energy commodities are supplied to more than 25-30% of electric power plants, up to 60% of iron and steel companies, more than 55% of chemicals plants, provide carriage in public, private and commercial transport, support construction activities and major repair, heat more than 1/3 of population (more than 100 million people) (Миллер, 2017).

European energy market is also very interesting for Russia. At a rough estimate oil and natural gas selling in Europe brings not less than 350 billion \$ per year, taking into account, that almost one half of federal budget consists of raw material sales income (Миллер, 2017). In respect to the growing requirements of European countries in Russian energy, Russia is ready to increase its oil and gas supplies in this region. It is mentioned in Energy Strategy of Russia for the period up to 2030 (2009), that "the purpose of energy policy of Russia is maximally effective use of natural energy resources and natural energy potential for

stable growth of economy, improvement of the population quality of life and promotion to consolidation of external economic positions" (с. 10). Therefore, the maintenance and expansion of energy traffic with Europe is considered by Russia as significant factor for national development and simultaneously as the method of improving of competitive advantages on the global energy market. Gas pipelines always were the main implementation tool of energy policy of Russia in European direction. Just these transport communications made Russian natural gas available for European consumers and determined their choice to Russia preference among other production countries. At the same time due to geopolitical changes of the past years the advantages of Russian energy system become transforming to its "weak spot". After Ukrainian Maidan revolution in 2014 the government of this country becomes to block Russian gas transit shipment to Europe on the Ukrainian part of gas pipeline "Urengoy-Pomary-Uzhgorod". On the other side, in 2015-2016 Russia was obliged to conduct argument with Belarus relative to price of gas transit through the pipeline "Yamal-Europe". All these things found out vulnerability of traditional model of continental gas traffic and put the reliability of Russian gas delivery to Europe at risk.

The geopolitical challenges encouraged the revision of the Energy Strategy. Russia was meant to diversify its gas export corridors in Europe. In 2011 the gas pipeline "Nord Stream" became operational; it directly connected Russian production fields and European customers through the Baltic Sea. By analogy with this successful project Russian party proposed two more projects. These are - «Nord Stream-2» with capacity of 55 billion cubic meters per year (*Публичное акционерное общество «Газпром», 2017*) and «Turkish Stream» with capacity of 31.5 billion cubic meters (*Публичное акционерное общество «Газпром», 2017*). The first of them will connect Russia and Germany through Baltic Sea and intended to countries of Western Europe, the second – Russia and Turkey through Black Sea and will supply natural gas to countries of South and South-Eastern Europe. Both projects must be completed not earlier than 2019 and allow interested parties to resolve several problems at once. Firstly, it removes the issue of the reliability of Russian natural gas supplies, because all new pipelines bypass unstable and potentially unstable transit parts. Secondly, it sufficiently increases the volume of supplied gas (two projects with existing one give 141.5 billion cubic meters per year). It is especially important under the condition of natural gas production decline in Europe and growth of import demand. Thirdly, it optimizes transit distance value. For example, gas supply through "Nord Stream-2" is shorter in 2 thousand km, then through Ukraine, and through «Turkish Stream» - in 3.5 thousand km. And finally, fourthly, customer is proposed with more favorable price due to the decreasing of transit distance. For example, for a series of European countries, such as Germany, estimated cost of Russian gas may be less than currently fixed 183\$ for one thousand cubic meters and one and a half or two times cheaper than the cost of pipeline gas passing through Ukraine (*Прохватилов, 2017*). Including all these circumstances revised Russian energy supply concept for Europe must attract attention of potential buyers of blue fuel. Nowadays some of big European companies indicate their wishes to take part in new Russian gas transmission projects: in the project "Nord Stream-2" "E.ON", "Shell", "BASF"/"Wintershall", "OMV", "ENGINE" took on the role of shareholders and investors together with PAO "Gazprom", but in the project "Turkish Stream" – "Allseas Group" (*Публичное акционерное общество «Газпром», 2017*). Presently it is carried out coordination with countries which territory will be the part of new Russian pipelines, concerning correspondence of these projects to national legislation, national regulations and standards, as well as in field of ecology.

The business interest of European countries to new Russian initiatives doesn't mean that all of them are ready to switch only to Russian supplies. In Europe diversified approach prevails regarding to power supply, in other words most of countries avoid direct and complete dependence on one energy supplier. According to words of K. Johns (2017), Deputy CEO of European Commission for Energy, «diversification may imply import restriction in one particular country, although it can simply identify the market where none player has complete power». European importers implement this line by means of freedom of choice. For example, countries of Northern and Western Europe together with Russian pipelines gas buy natural gas from Dutch production fields or Norwegian liquid gas which passes to



regasification terminals on the coast of North and Baltic Sea. The countries from South Europe deliver liquid gas from Qatar, Nigeria and from series of other Middle-Eastern countries. It should be noted that to provide the best proposal on the market foreign suppliers endeavor to increase their export possibility and constantly develop transport infrastructure. For example, Norway mainstreams construction of its tenth pipeline «Norwegian corridor», which will pass through Denmark and will be designed for flow capacity about 10 billion cubic meters will be completed by 2022. (*Международное энергетическое агентство, 2017*). In 2018 there will be finished the construction of gas pipeline system connecting two pipelines Trans Anatolian (TANAP) and Trans Adriatic (TAP) and providing transportation of gas from Azerbaijani production field “Shah-Deniz” in Europe. The Estimated pipeline capacity will be 16 billion cubic meters per year in the initial stage (*Socor, 2012*). The implementation of these projects allows gas supplies to diversify and to move to acceptable contract conditions that are legal and justifiable.

Therefore the European energy market is one of the most liberal and open in the world. With growing energy consumption and significant decrease in gas value in Europe, importers are continuously in search of new favorable proposals. Recently USA decided to take advantage of this situation. Over the past decade USA massively scaled up its natural gas output in large part because of the so called “shale revolution”. Technical innovations gave opportunity to lower gas production cost in USA from 70\$ for one thousand cubic meters in 2014 to 40-45\$ in 2017 and started to export gas product in Europe (*Безчастная, 2017*). USA is planning to supply its own gas as liquid on the continent by means of tanker fleet and to unload on floating and steady regasification terminals. Such terminals already exist, for example, in Belgium, Netherlands, Poland, Lithuania or may be constructed among them in Bulgaria, Greece and Croatia (*Каткова, 2018*). Therefore, the USA is intending to create its own gas corridor «North-South», embracing the entire continent through the Baltic, The Adriatic and Black sea coast will become one of the leading gas exporters in Europe sidelining Russia. Such plans came out into the open by the President of USA Donald Trump on the summit of “three seas” on July 2017 in Warsaw. In particular, Trump (2017) stated, “... We would welcome the establishing of closer trade and economic relations in the wake of rising of your countries economy. And we are ready to providing you with access to alternative sources of energy, so that Poland and its neighbors will not be the hostages of the only one energy resources supplier”.

Moreover, the reality circumvents ambitious intentions of USA. In fact, USA can compete neither with Russia nor with other gas suppliers in the European energy market. Firstly, the quantity of gas imported from USA pales in comparison with other supplies in Europe from outside. American liquid gas passes through Polish and Lithuanian terminals, but only as single or test deliveries. The scope of these deliveries in 2017 within several test contracts was nearly 500mln cubic meters that are approximately 40 times less than annual growth of Russian “Gazprom” supplies in Europe (*Прохватилов, 2017*). It is unlikely that Western Balkan states can hope to large volume of import from USA. According to the words of current President of Serbia A. Vucic (2015), “...the country annually needs nearly 2 billion cubic meters of natural gas, but for industry start-up it is preferred to achieve 3 billion”. USA can’t provide such volumes even in case of keeping its promise to put into operation terminals in Croatia and Greece (*Vucic, 2015*). Secondly, in spite of the low cost of natural gas production in USA its price for Europe multiply increases due to the technology of liquefaction and transportation. For example, as of middle of 2017 American liquid gas supplies in Europe cost nearly 245\$ for one thousand cubic meters, that was the bottom limit of export profitability according to US Department of Energy (*Прохватилов, 2017*). Let us recall that the price of Russian pipelines gas for Europeans in the same period was 183\$ for one thousand cubic meters. Therefore, the main reason of American liquid gas non-competitiveness in comparison with pipelines gas is its high price. Even under the conditions of substantial gas cost reduction in Europe, that was mentioned above, Russian companies can well afford to reduce price lower than 140\$ for one thousand cubic meters (and it is cost-effective), but American manufacturers cannot. It appears that the commercial benefit factor has fundamental importance for many of gas importers throughout Europe. For instance, Poland that continuously states readiness to stop using Russian energy

commodities to 2020 but within its power to do it because it gets 10 billion cubic meters of consumed gas by beneficial price from Russia while annual gas consumption is 15 billion cubic meters (*Каткова, 2018*). In some or other way, due to similar reasons in 2017 Russian company “Gazprom” has increased gas export in Europe to 8,1% - up to 193,9 billion cubic meters in comparison with 2016. This growth was at the expense of Russian gas purchasing by North Western and Central Europe (*Миллер, 2017*).

It is rather obvious that construction of two new pipelines from Russia to Europe moves further away from the American contemplation of “energy dominance” on the continent. Without the possibility to compete with Russian export of hydrocarbons American of ten uses actions of unfair competition (*Лавров, 2018*). Generally, USA tries to prevent the growth of Russian supplies in Europe by means of indirect political leverage to governments of those countries which are interested in such supplies. For example, USA forces the Baltic states’ water areas to ignore the project “Nord Stream-2” for environmental reasons, and forces continental members of the European Union to adhere principles of so-called Third Energy Package, that stiffen demand of decentralization of gas provision of Union countries, and orients several countries including Poland to change national legislation against Russian companies. Independently USA acts more directly and straightforwardly. In common route of anti-Russian sanction policy of past years there were introduced legislative package under joint name “Countering America’s Adversaries through Sanctions Act” (CAATSA law). These laws addressed also to European countries involving to projects where Russian stake is not less than 33% of stocks (*Herb, 2017*). Such projects are “Nord Stream-2” and “Turkish Stream”, but mentioned European investors and shareholders such as “Shell”, “BASF”, “Wintershall”, and “OMV” put under American sanctions – huge fines. By means of these actions, USA tries to circumvent Russian gas initiatives and eventually to expel Russia from European energy market and impose its own products (*Лавров, 2018*). However, if to look broader all that is happening is outside the frameworks of trade wars which simply limit import and export possibility. USA actions have all symptoms of major economic war with aims to defeat Russia as main geopolitical opponent, maximal weakness of Germany and France position, which dominate in European policy and learn toward cooperation with Russia (*Виноградова и Пальмова, 2017*). In this sense, natural gas and oil become the projection of big-league politics.

Nowadays European states pressurized from outside forces face a dilemma to act according to their own economic interests, which are in common on the side of Russian gas projects, or to capitulate under pressure and get the gas that is more expensive from overseas. One can say that new Russian pipelines destiny, in a greater degree of “Nord Stream-2”, depends on European countries and their positions in this matter. In a short time, European Union has to determine its priority. As for Russia, it is not going to passively wait for making a decision. The European energy market is very important for Russia, but it is not the only one. Taking into account full domination across all Eurasian transit routes – Northern Sea Route, land New Silk Road, Suez Route (providing consolidation in the Middle East) and potential growth of Asian economy in the coming decade, Russia can easily reorient to another strategic direction. For its economy, there will appear additional growth motivation, oil and gas consumers will be really diversified, and risk of energy projects safety will be essentially reduced.

## Conclusion

In conclusion, we can outline the following summary:

- New industrial engineering doesn’t cancel the general trend of energy consumption growth in the modern industry.
- The most important strategic task of energy importing states is to provide a reliable and safe energy supplies from the production countries.

- Russia traditionally takes one of the leading places on the energy market of euro-zone countries covering 40% of their gas demands and 32% of oil demands.
- Taking into account growth of energy consumption in Europe and to avoid risks because of degradation of the situation in Ukraine Russia proposes the growth of supplies to its pipelines of gas through the network of a available, transmission communications bypassing politically unstable regions which are under construction and being designed.
- By cumulative volumes of gas pumping and commercial benefit new Russian projects have no parallel, they are quite attractive for consumers and have significant profit margin for supplier.
- Russian gas transmission projects come across restrictions, connected with not only European nations interest in gas supplies diversification but also with USA attempts to monopolize European gas market.
- Realizing the strategy of “energy dominating” USA uses actions of unfair competition in countering to Russian gas transmission projects.
- The future of the projects depends on the choice of European countries and their positions in questions of providing their own energy security. In the situation of actual polarization of Europe in this matter point of view of European countries that have no alternative to Russian oil and gas are very interested in new pipelines, for example, Western Balkan states and Serbia will be essential in Europe-wide discussion.
- Russian external economic and energy strategy has multi-vector character, the national energy complex can realize export supplies simultaneously in several directions and also to set off losses in one direction by means of increase of delivery volumes in others, creating more a safe environment for development and promotion of their own energy projects.

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## REALIZATION OF RUSSIAN BLACK GAS PIPELINE PROJECT - ECONOMIC-ENERGY OR GEOPOLITICAL QUESTION

**Abstract:** Energy relations between the EU and Russia in the gas industry are characterized by the specificity, complexity and high degree of conditionality and interdependence. The EU provides a third of its natural gas demand for imports from Russia (about 150 billion m<sup>3</sup> / year), while Russia exports almost half of its gas production to European countries (counting Turkey and Ukraine). Up to the construction of the North Stream at the bottom of the Baltic, in 2011, Russia transported four fifths of its gas intended for Europe through the Ukrainian gas transportation system ("the rest" by the "Jamal-Europe" gas pipeline), while in recent years it has been around 40% the ten-year agreement between Russia and Ukraine on the transit of Russian gas expires in 2019). For more than a decade, Russia has been trying to build an undersea gas pipeline in its south-eastern export sector (South Stream, Turkish Stream), emphasizing primarily its economic and energy importance and role - diversification of exports and increasing the level of energy security, in fact, its essence lies in geopolitical reasons - the marginalization of Ukraine's gas-transportation significance and the strengthening of (geo) political negotiating capacities of Russia in connection with the known situation in Ukraine. Under strong pressure from the European Commission and the US, Bulgaria suspended the construction of the South Stream, which is why Russia (Dec 2014) announced that it would abandon the construction of the South Stream and build the Turkish Stream. The construction of the first "arm" of this gas pipeline for the needs of Turkey is currently up and running, despite various difficulties and problems, determined not only by the energy but also by the political aspects of Russian-Turkish relations. After all, although for many Turks is only a modified version of South Stream, the essential difference between these two projects is the change in the Russian gas export strategy, ie the export strategy "to the door of the consumer", replaced by the construction of a hub on the Turkish-Greek border, from where interested customers can take Russian gas, if they build access pipelines (connectors). The objective of the analysis of the economic and energy and geopolitical aspects of the realization of the project of building a Russian Black Sea gas pipeline is to point to the importance, complexity and actuality of this problem, which would significantly determine the diversification of exports / imports and energy security of southern European countries, as well as the relations of the most influential geopolitical actors, through the prism of the implications are caused by the unilateral movements of both sides: the EU - suspension of the pipeline by the European Commission due to its non-compliance with the anti-monopoly rules of the so-called "The Third Energy Package, and Russia - the abandonment of the construction of the "South Stream" and its substitution "Turkish Stream". The aim of the paper is to draw attention to the current topic and its approach to the general public, or to make a theoretical shift in the understanding and critical thinking of gas markets in connection with the attempts to build the Russian Black Sea gas pipeline, from the perspective of the current events in the last three or four but also to illuminate the genesis of the problem through a retrospective presentation of facts and events from the nearer past, without whose knowledge the current situation, ie the motives and reasons of both sides that the pipeline is built / not built, and the internal and external factors that are determining and determining the process.

**Key words:** Russian Federation, EU, Black Sea gas pipeline, geopolitics, export / import diversification, energy security.

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## 1. Initial consideration

The essential feature of all gas and transit infrastructure games in the area of the old continent and the Black Sea region is the systematic placement of semiannites and / or poles determined by the economic-energy and military-security, ie political interests of major geopolitical players (USA, Russia, EU).

The South Stream gas pipeline project has failed because of the EU's limitation and its non-compliance with the EU's anti-monopoly regulations in the field of energy, The third energy package, although the main reason was the Ukrainian crisis and accusations of direct "involvement" of Russia in the conflicts in parts of the Donetsk and Luhansk regions in the east of Ukraine. After huge political pressure from the Washington and Brussels administrations, Bulgaria did not give the necessary permits, so Russia suspended the project. As its replacement, in December 2014, the construction of the Turkish Stream pipeline was announced. This is a hybrid version of the South Stream where the technical and technological parameters remained the same, since the existing South Stream project was mostly used. Even two-thirds of the march remained the same (about 660 km) with modifications from the point of view of the outlet point of the marine part of the gas pipeline in the European part of Turkey, not Varna in Bulgaria, where the South Stream was supposed to "exit".

The essence of these two projects was to change Gazprom's export diversification strategy. Namely, South Stream Gasprom was supposed to deliver gas to European consumers through the "delivery to the door" strategy. However, the Turkish stream was supposed to bring gas only to Turkey and that of the total capacity, half would be for Turkish consumers (the first gas pipeline capacity of 15.75 mld / m<sup>3</sup>), and the rest (to be delivered to other branches), gas are delivered only to the terminal (haba, gas hub) on the Turkish-Greek border where it would be taken over by European consumers, when and if they build the necessary access gas-transport infrastructure to the specified location. However, the Turkish stream has not only been a major sign of the issue since the end of November 2015, but was suspended due to the intensification of relations between Russia and Turkey over the collapse of the Russian Su-24 bomber by the Turkish Hunting aviation, at the end of November 2015 in the area of the Syrian-Turkish border. The incident essentially disrupted the relations of the two countries that were reduced to a very low level. The Russian state imposed restrictive measures (political, diplomatic, military, economic, energy) towards Turkey in the form of a suspension of military-technical and a large number of segments of economic cooperation, including energy projects (the Turkish gas pipeline and the construction of a nuclear power plant). In January 2016, Russia introduced a visa regime for Turkish citizens. The escalation of the crisis seriously jeopardized the implementation of the Turkish Stream gas pipeline project. After more than half a year, in the second half of 2016, the pipeline project was "thawed" and started with its realization.

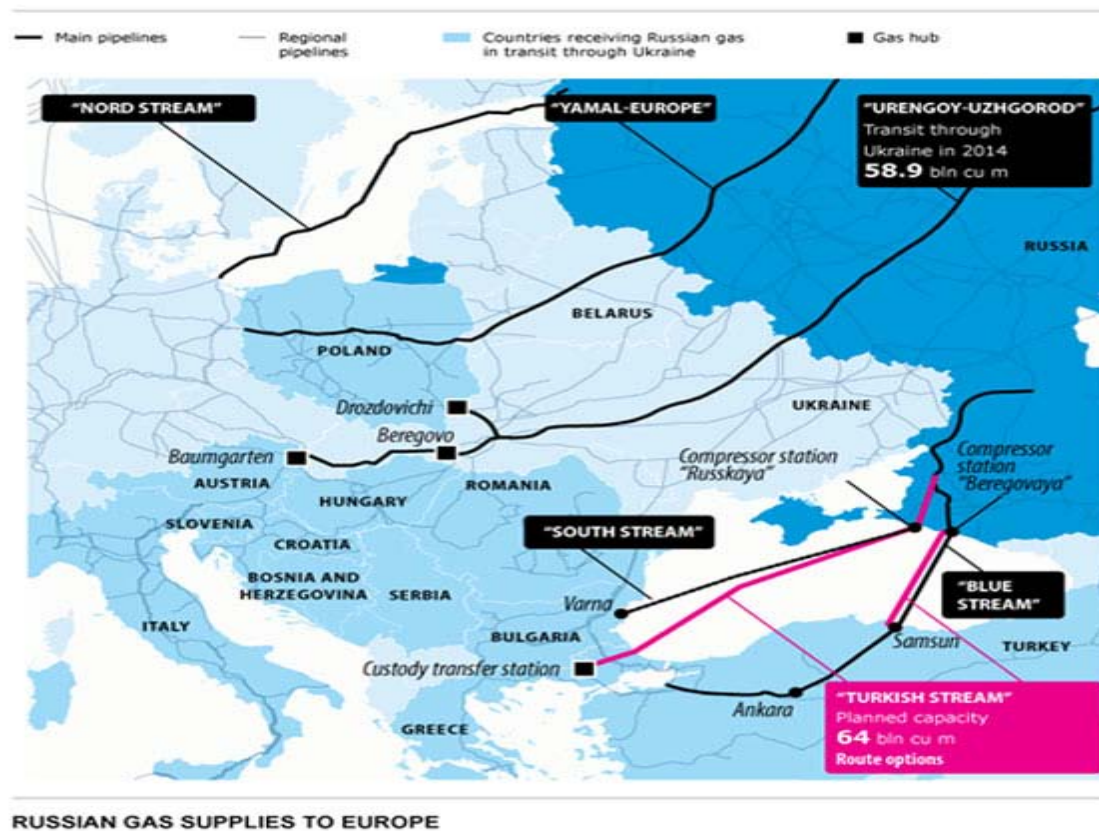
Given Russia's resolve to diversify its gas exports to the European vector and by 2020 to significantly reduce the geostrategic and geoeconomic significance of Ukraine as a transit country for the export of Russian gas to the EU, a strategic question arises: WHAT IS ALTERNATIVE? The extension of existing gas pipelines by building new "branches" (North Stream 2, or Jamal-Europe 2), or "reviving" some of the modified versions of the Black Sea gas pipeline, was called South or Turkish Stream, and the proposal to build a gas pipeline to Greece to connect to the existing gas pipeline "TGI Connector" ("Poseidon") to Italy, then "Balkan" pipeline projects "Tesla" and / or "East ring"), or some completely new option? Whatever option in the near future has come to life in practice, it has its foundation in quantitative energy indicators, that is, the numerical indicators of the energy relations between Russia and certain European countries.

To illustrate this point, it should be recalled that Russia exported from 140-160 billion m<sup>3</sup> of gas to EU countries in the past years, almost a quarter of it in Germany. Until the construction of a direct submarine gas-transport infrastructure to Germany 2011-12. (the North Stream gas pipeline capacity of 55 billion m<sup>3</sup> / year), Russia is through the Ukrainian gas transportation system (operating capacity of over 140 billion m<sup>3</sup> / year), managed by the Ukrainian state corporation "Neftfraz" - estimated at around 25 billion dollars) into Europe exported 4/5 of its gas, or about 110-120 billion m<sup>3</sup>. This volume of transit was reduced by a quarter, by construction of the Nord Stream pipeline and until recently with smaller or larger oscillations it was between 80-90 billion. During 2014, due to the



famous events with the Crimea and the conflict in the east of Ukraine, the transit of Russian it is clear that the construction of a new energy gas and transport infrastructure, in the form of a direct submarine gas pipeline in the Russian south-west export route (South, Turkish or some "new" flow), the gas export through Ukraine was further reduced by another 15-20 -30-40 billion billion m<sup>3</sup>, which would diminish, and even completely, annul the transit potential and significance of Ukraine, and therefore the segments of its capacity as a geopolitical (geostrategic) headquarters.

Map 1. Existing and potential Russian gas pipelines to Europe



Source: "Big Projects - Great and Dilemmas", Senerges, ([http://www.senerges.rs/veliki\\_projekti\\_1.Html](http://www.senerges.rs/veliki_projekti_1.Html), February 12, 2018);

However, what is devastating from the scientific-theoretical and energy-empirical aspect is that today a significant number of renowned theorists and authors, undoubted scientific authorities, and from the West and Russia, a complex political and security situation in Europe (and even in the Black Sea region) perceive through the matrix of cold-logic logic and the intrinsic interests of large geopolitical players. In this context, there is nothing less competing and diametrically disagreeing with their views on individual energy processes in the Black Sea region, that is, on issues related to individual projects of the existing and potential gas and transit infrastructure in the region (gas pipeline South Stream, Turkish Stream, Blue Stream, TAP, TANAP, BTE gas pipeline (Baku-Tbilisi-Erzurum), Balkan gas projects "Tesla" and "Eastern ring", etc.), depending on their ideological identification and value orientation. It is precisely for the above reasons that this paper is an attempt of scientific and value-neutral analysis of the situation related to the Black Sea energy-transit infrastructure and the political and economic implications it causes.

Existing and potential gas and transport infrastructure in the Black Sea region

#### Gas pipeline Turkish stream:

The Turkish stream replaced the South Stream from which Russia abandoned in late 2014, due to a dispute with Brussels (the European Commission). It is planned that the Turkish stream will reach the European part of Turkey, and then to the terminal on the Turkish-Greek border in the Ipsala area,

where the Greek-Turkish interconnect has been operating since 2007. The exit point of the Turkish flow from the Black Sea is in the European (Balkan) part of Turkey, near the settlement Kijakej, not far from Istanbul. The submarine section of the Turkish gas pipeline with a total length of over 900 km will use more than two thirds of the projected South Stream route and then turn to Turkey (about 250 km). The land section of the gas pipeline, 180 km long, will end at Ipsala, on the Turkish-Greek border, where large gas hubs will be built.

Map 2. Gas pipelines Turkish Stream (and South Stream)



Source: <http://www.blic.rs/Vesti/Ekonomija/533859/Gazprom-Ovo-je-trasa-Turskog-toka>, 06.04.2015.

Gazprom and the Turkish energy company Botas Petroleum Pipeline Corporation jointly build a land section of the gas pipeline, while the offshore section from Anapa to Turkey, Gazprom builds independently. The aim is to reduce the transit importance of Ukraine and its blackmailing potential.

The total capacity of the Turkish gas pipeline is 31.5 billion m<sup>3</sup> / year - two arm capacity of 15.75 (initially it was planned to construct 4 branches with a total capacity of 63 billion m<sup>3</sup>, the same capacity as the suspended South Stream, but the capacity is halved due to construction North Stream 2, with a capacity of 55 billion m<sup>3</sup>). Gas from the first Turkish arm (15.75 billion m<sup>3</sup> / year) is entirely intended for Turkish consumers. Second-hand gas (15.75 billion m<sup>3</sup> / year) is destined for the European market to which gas will be delivered through the gas terminal (haba) at Ipsala.

It was originally planned that the construction of the first branch of the Turkish Stream will be completed by the end of 2016, but due to well-known events related to the collapse of a Russian airplane over Syria in November 2015 and a kind of freezing of the Turkish stream, and later reactivation of the project (Aug 2016), this deadline has been prolonged in two years. Today, at the end of the first half of 2018, the construction of the first branch of the Turkish Stream is coming to an end. The value of the project is estimated at around \$ 10 billion.

Turkey is the second largest Russian gas market after Germany. In 2014, Gazprom exported 27.4 billion m<sup>3</sup> of gas to Turkey. Currently, by the end of the first round of Turkish flow, Russian gas supplies to Turkey are realized through direct submarine Black Sea gas pipelines "Blue Stream" (1,213 km in length, 16 billion m<sup>3</sup> / year, worth \$ 3.2 billion and put into operation in 2003) as well as "Transbalkan Pipeline" (south-western branch of the Ukrainian gas transportation system). The launch of the Turkish Stream and North Stream 2 pipelines will enable the delivery of Russian gas to European consumers from 2019, ie to circumvent Ukraine.

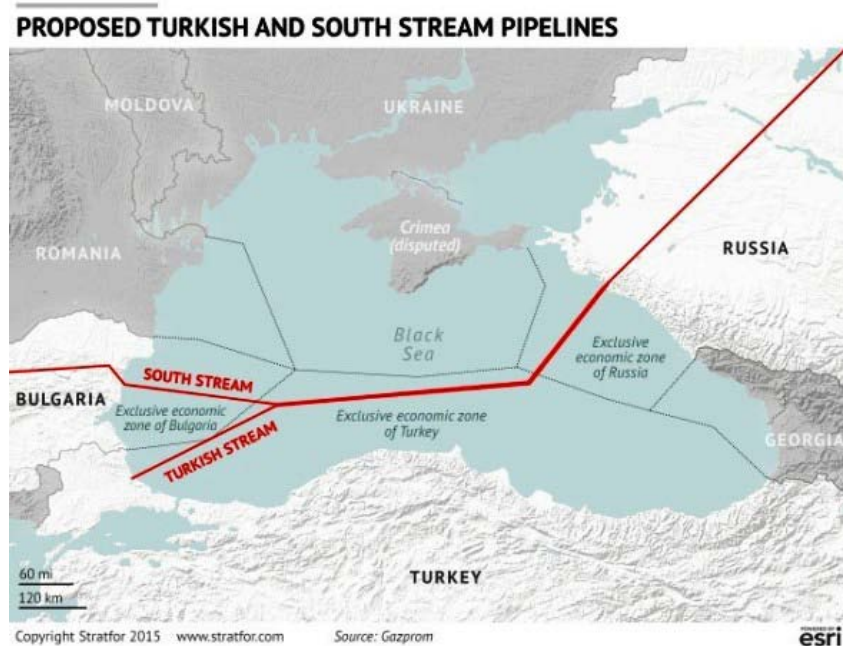
Geostrategic gas games continue, and in the Balkan route, the so-called southern gas corridor, only a transit of Russian gas is known in due course. As it is said, from the second branch of the Turkish gas is intended for the European market, while from the first one it is intended for consumers in the north-

west of Turkey, which diminishes the significance of "Transbalkan gas pipeline", that is, the southwestern branch of the Ukrainian gas and transit system, through Romania and Bulgaria supplies Turkey with slightly more than 10 billion m<sup>3</sup> of Russian gas. Between Russia and Turkey there is already a direct gas pipeline called "Blue Stream", which is going to the Black Sea bottom from the Russian East Black Sea coast (Beregovaja compressor station) to the northern city of Samsun, with a capacity of 16 billion m<sup>3</sup> / g (released in 2003).

The current pipeline project Turks is actually a hybrid - a modified South Stream gas pipeline:

- Halved capacity, instead of 63 billion m<sup>3</sup> / g of South Stream, for the Turkish flow currently, two blades of 15.75 billion m<sup>3</sup> / g are projected, respectively, with a total capacity of 31.5 billion m<sup>3</sup> / g.
- Even though the length of the submarine section of the Turkish Stream (which Gazprom builds independently) is more than 900 km, more than 660 km is going along the South Stream planned route, while the last section (about 250 km) "turns" towards Turkey.
- The exit points from the Black Sea were changed, a few degrees south to the Balkan part of Turkey (settlement Kijakei), instead of Varna (Bulgaria).

Map 3. Comparison of the route of the Turkish Stream and South Stream gas pipeline







However, the only real and significant difference between these two complementary gas pipeline projects is the change in the Russian gas diversification strategy. The previous strategy based on "gas deliveries to customers up to the home threshold" was replaced by the strategy of "selling gas at the border, by building a gas hub on the Turkish-Greek border" near the Turkish city of Ipsala. The new strategy metaphorically reads "the goods (gas) is in the store at the beginning of the settlement (gas habit at Ipsala), if someone needs can come for it (whatever it wants), pay it and take over the shipping costs and risks from the store to its at home, which he had not had to take into account before, because he was concerned about Gazprom, even had concrete financial benefits in the form of collection of transit fees. Now everything has been changed because of the situation with the EU antimonopoly rules, the third energy package, according to which the gas producer can not be a distributor, that is, the owner of gas-transport infrastructure, and that 50% of the capacity of the gas pipeline owner must be transferred to other distributors.

The situation is such that in terms of building Russian gas pipelines across the Balkans, whether they go to the territories of member countries (Greece, Bulgaria, Romania) or non-members (Macedonia and Serbia) has not changed anything since 2014. A certain lobby - in Brussels and Washington - is still doing everything to prevent new routes for transiting Russian gas to European consumers.

The area around Ipsala (European part of Turkey), where the completion of the gas pipeline Turks Stream and the construction of a gas hub is envisaged, is characterized by an existing and potential access gas and transport infrastructure in the form of a gas pipeline "GTI connector" (connector Greece-Turkey-Italy), Trans-Adriatic gas pipeline TAP), and mention is made of the option of constructing a number of access pipelines (Tesla gas pipeline, Eastern Ring gas pipeline and Bulgaria-Romania, Hungary-Austria gas pipeline), all of which would transport Russian gas to the Central European territory via the Balkans.

## 2. Transanadolic pipeline ("Trans Anadolia Pipeline" - tanap)

In March 2015, Turkey and Azerbaijan launched the construction of a Trans-Anatolian gas pipeline (TANAP), which will use gas from Azerbaijan's Shah Deniz 2 gas turbine to Turkey and consumers in the EU. TANAP will be part of the South Gas Corridor to deliver gas from Azerbaijan to Europe.

Map 4. Transdanadic gas pipeline (TANAP) According to estimates, the value of the project is about 10 billion dollars and should be completed by 2019. The capacity of TANAP is about 16 billion m<sup>3</sup> / year, which is only about three percent of European annual needs.

Trans Adriatic Pipeline ("TRANS ADRIATIC PIPELINE" - TAP)

As mentioned, the EU is planning to get gas from the Caspian Sea through the South European Gas Corridor from the Trans-Anatolian gas pipeline (TRANS ANADOLIA PIPELINE - TANAP) and the Trans Adriatic Pipeline (TAP) from 2020. In 2013, Greece, Albania and Italy signed an agreement on the construction of a trans-Jordanian gas pipeline. The trans-Adriatic pipeline should pass through the north of Greece and Albania to southern Italy. From 880 km, 540 passes through Greece.

Map 5. Trans-Adriatic Pipeline (TAP)



Source: [http://www.dw.de/gasovod-tap-napreduje-bez-moskve/a-17974547?maca=ser-TB\\_ser\\_politka1\\_naslovna-4944-html-cb](http://www.dw.de/gasovod-tap-napreduje-bez-moskve/a-17974547?maca=ser-TB_ser_politka1_naslovna-4944-html-cb),

The resource base is the Azerbaijani gas field Shah Deniz 2, whose exploitation should begin in 2020. The most important TAP investors are British "BP", Norwegian "Statoil" and Azerbaijani concern SOCAR - with 20% each. Russia is excluded from this project, but the geostrategic observed TAP is not a competition for Russian gas pipelines, due to the small capacity - initially about 10 billion m<sup>3</sup> / year, and maximum 20 in 2025. Argumentation is extremely simple, the needs of the EU for gas are much higher, and the second, the Azerbaijani gas field Shah Deniz 2, has not yet been introduced into the exploitation in the Caspian Sea. The realization of the TAP project has been tackled with many problems, from technical, economic and security, to geopolitical. In real terms, TAP does not have a major impact on the global diversification of EU gas supplies due to low capacity and, above all, the inability to provide a stable raw material base. Given that, as already stated, the amount of gas for the EU with the Shah Deniz 2 will in the best case not exceed 10 billion m<sup>3</sup> annually, the question arises where the Brussels administration is planning to find a gas for filling capacity? Turkmenistan? It is very difficult due to the violation of relations with Azerbaijan and the existing long-term contracts with Gazprom. Iran? It is even more difficult with respect to the position of the United States and certain EU countries in relation to the Iranian nuclear program and the involvement in the Syrian crisis.

The project of the gas pipeline "Tesla"

One of the priority projects, called "Tesla", is from Greece to Austria. Hungary, Serbia, Macedonia and Greece have joined the idea of this project, with a capacity of about 27 billion m<sup>3</sup> and a length of 1300-1400 km, with the construction deadline until 2019. So conceived, this pipeline would allow the extension of the "Turkish Stream" to Central Europe. There is also the idea that "Tesla" transports not only gas from the "Turkish Stream" but also from the TANAP gas pipeline, but also that Tesla will miss gas in the opposite direction.

The project of the pipeline "East ring"

The second project of the European Community is a gas pipeline called the Eastern Ring, the construction of which was initiated by Slovakia. The "East Ring" should be a joint project of Bulgaria, Romania, Hungary and Slovakia and should be connected to the Black Sea Gas Pipeline (Turkish Stream) . Namely, Slovakia and Bulgaria signed a Memorandum of Understanding related to the construction of the Eastring gas pipeline, which should connect the gas transmission networks of Bulgaria, Romania, Hungary and Slovakia, with the possibility of gas transportation in both directions. The capacity of this pipeline would be about 20-30 billion m<sup>3</sup> / year, which is sufficient for the needs of the mentioned countries. It is a reversible gas pipeline whose project is still in the initial phase. The pipeline would go from Malokoklare to the border of Bulgaria and Turkey, to the Great Kapusani on the border of Slovakia with Ukraine, where there is a compressor station and an entry point for the import of Russian gas. The gas pipeline is supported by the EU and would be open to all. All these pipelines allow "Gazprom" to solve the problem of possible failure of transit through Ukraine and to deliver gas to European consumers from "Turkish Stream", at the border of Turkey and Greece.

Map 1. Eastring pipeline project



Instead of final consideration

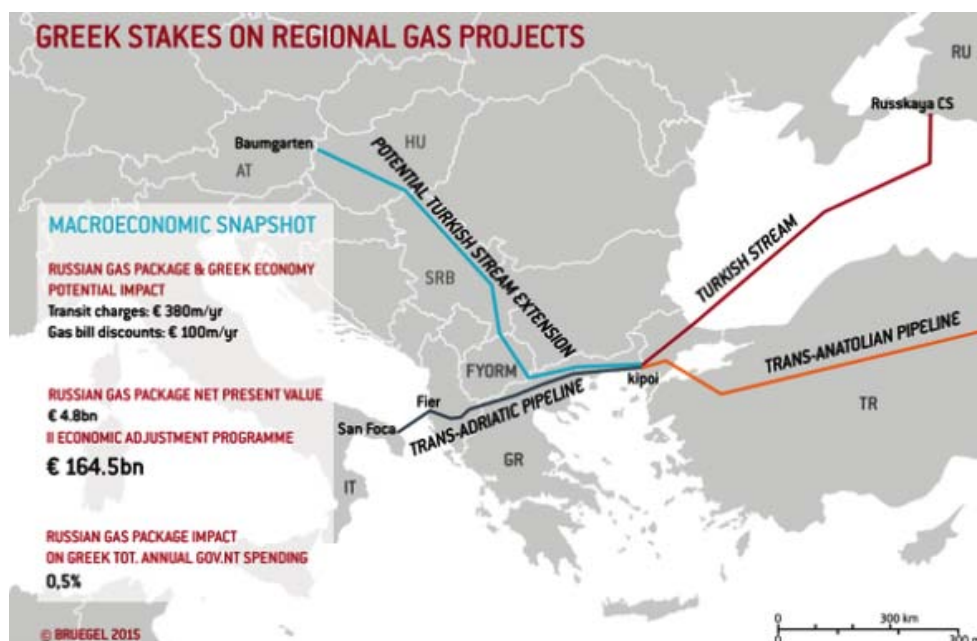
Hypothetically, in a couple of years, there may be a reconfiguration of gas and energy space in southeast Europe in both economic and geopolitical terms. In the west of Turkey, near the border with Bulgaria and Greece, there will be a large gas hub. The Transdanubium Gas Pipeline - TANAP and Turkish Stream - will end there, starting with Trans-Adriatic Pipeline - TAP, reversible Eastern Ring, Tesla gas pipeline or some other gas interconnector project via the Balkans. These gas pipelines would transport Azerbaijani and Russian gas further west or north-west. With this, Azerbaijan and Russia would achieve their strategic energy interests more or less, that is, they had a gas infrastructure for the transit of gas to the EU. Turkey will acquire the status of a large regional gas hub, which will be interesting in the future for Turkmenistan, Iran and Iraq. Greece, Bulgaria and other Balkan countries will be able to diversify gas imports and increase the level of energy security. And with the consistent application of the so-called "The third energy package".

The project of suspended gas pipeline "South Stream" in relation to its "successor" (Turkish pipeline) had a much more prominent geopolitical dimension thanks to the fact that the Russian "Gazprom" was under the "partnership" construction of the Balkan countries, the so-called "The national gas pipelines", ie the land sections of the South Stream gas pipeline, managed to enter their local energy markets and realize concrete economic benefits in terms of acquiring ownership of the energy infrastructure, but also to realize the undoubted geopolitical influence and influence on the Balkan spaces. An illustrative example and argument for this position is Serbia and the purchase of a



controlling stake in its national oil company (Petroleum Industry of Serbia - NIS) by Gazpromneft, a subsidiary of Gazprom, for a sum of \$ 400 million (with an investment obligation of 560 million in the next 5 years).

Map 6. Potential gas and transit infrastructure in the Black Sea region



The possibility of a reliable forecasting of the successful solution of the problem of constructing the Russian Black Sea gas pipeline at full capacity in the near future is extremely problematic. The reason for this is that the influential factors of international relations, above all the EU (USA) and Russia, perceive the realization of projects in different ways, in line with the realpolitical projection of their geopolitical and geoeconomic interests. To what extent will the energy situation in the region of Eastern and Southern Europe be relaxed in the near future, it is ungrateful to evaluate. More precise predictions about this will be possible only if and when in practice in full capacity the implementation of agreed measures and activities of the EU and RF in connection with the construction of the "Russian Black Sea gas pipeline to Turkey, as well as the construction of the North Stream 2. Then all qualifications and forecasts related with this, the product is more or less arbitrary guesses and assumptions. Which of these or some other solutions related to the construction of the Black Sea gas pipeline has the highest chance of achieving the years ahead, it is difficult to foresee due to the complexity of the situation due to the influence of external factors. There are different views on how to solve this problem. The platoon of thinking about possible options ranges from preserving the existing (status quo) situation, to the suspension of the export of Russian gas through Ukraine and its replacement by the transit of Black Sea and Baltic gas pipelines. Whatever option is being updated, a balanced approach to the "problem" and mitigation of existing differences is a framework for reaching a solution and establishing a stable energy security system in the region.

Although no prognostic model has the capacity to fully elaborate all scenarios regarding the further development of the situation in the Black Sea gas transport infrastructure, the analyzes on the energy situation and the essential factors that are conditioned are presented, in light of the fact that the first branch of the Turkish gas pipeline underground sections) are soon completed, helping to better understand the current energy situation in the Black Sea region and possible directions for future developments.

When it comes to Serbia, whose gas needs are about 2.5 billion m<sup>3</sup> / year, it was announced in 2015 that a "gas pipeline between Serbia and Bulgaria, ie the gas interconnector Bulgaria-Serbia, will be built, which would enable Serbia another source of supply, that Serbia will reach the TAP and TANAP gas pipeline, which would increase the level of energy security and the number of options for diversification of imports. Currently, Serbia imports Russian gas only from one direction, via

Hungary. Interconnector Bulgaria - Serbia is a gas pipeline with a two-way gas interconnection with a capacity of 1.8 billion m<sup>3</sup> / g, with the capacity to expand capacity: This way, Serbia would meet about 70% of its gas demand.

The Black Sea gas pipeline, whatever it was called, looked, and from what it consisted, in the near future, it would certainly be an inevitable determining factor in the energy security system of Southeast Europe, including Serbia. In the meantime, new energy problems and gas infrastructure problems will arise, some new issues will also be revealed, which will depend on the tendencies related to the Black Sea gas pipeline and the functioning of the South-European energy and security system. The answers to these questions will determine Russia's gas and energy relations with the European countries and the Union as a whole and their backward impact on the political and security processes in the Black Sea region and the entire European continent.

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## THE ROLE OF SHANGHAI COOPERATION ORGANIZATION IN THE SECURITY POLICY OF PEOPLE'S REPUBLIC OF CHINA

**Abstract:** After the unprecedented development in economic and, broader, human history, the People's Republic of China (hereinafter referred to as China) has to change its own discourse of security concept. The first part of the paper will focus on institutionalization and creating of Shanghai Cooperation Organization (hereinafter referred to as SCO). We will try to examine the reasons that triggered the development of such regional security mechanism and changes that occurred in White Defense Papers since 2001. The second part of the paper will analyze, through the lens of critical and pragmatic approaches, what are the main geopolitical objectives of the New regionalism and what kind of strategies China pursues in the newly developed circumstances, especially after September 11 of 2001. These two parts are dedicated to confirming our main hypothesis that SCO has enormous importance in Chinese efforts for providing, enhancing and rising its own internal and international security position.

**Key words:** China, security issues, economic rebuilding, geopolitics;

### 1. Preface

The aim of this paper is to analyze the role of the SCO in the new Chinese approach of defining the regional security architecture under the umbrella of “harmonious environment with Chinese characteristics.” Far East rising power changes its international and regional position through amalgam and simultaneous combination of elements such as cultural-historic tradition and changes within the White Paper on National Defense Policy, meteoric rise as an economic giant, active response towards World economic crisis through Internet Plus campaign and Made in China 2025 (Cohen, 2015:1; Kennedy, 2015). In that way, the created space for begetting the new geopolitical identity as the new world power could be shrunk, if official Beijing shows that it is not capable to manage the more and more visible domestic, regional and international challenges, which in many segments could jeopardize its *Two Centenaries* (Tiezzi, 2015). According to Luttwak (2012:6) given China's dimensions, its rapid growth is destabilizing itself, regardless of its conduct.

### 2. Economic and Security Issues as the Driving Forces of the SCO Institutionalization

In accomplishing its plans to become naval power and stable economy, China has to secure its western borders due to the geopolitical challenges which results from linguistic, ethnic, cultural and economic differences. This could be considered as one of the driving forces why China triggers and pursues land geopolitical strategies towards Central Asia (Mitrović, 1995; 2001; 2012; Rubinovitz 2015).

With that in aim, China set to establish the new regional security mechanism, Shanghai Cooperation Organization. The SCO stems from the mechanism known as Shanghai five, which first member states were China, Russia, Tajikistan and Turkmenistan. In 2001, Uzbekistan became member, when the regional and, above all, security arrangement changed its name in the SCO. Last year the full members, also, became India and Pakistan, which resulted in the new geopolitical rebalancing in Asia. At the very

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beginning of its development the SCO was judged as a (f)actor of counterbalancing the NATO<sup>2</sup> and club of dictators, which on the platform of Shanghai spirit promotes authoritarian regimes (Shanghai Cooperation Organization, 2001; Dadarbaev, 2014; Ambrosio, 2008).<sup>3</sup> The purpose of the SCO as the promoter of democratic, multipolar and fair international order was questioned by the fact that those countries are not democracies (except India) in the sense which is defined by the West. Starting from a very low position and in space where containment strategy is still underway, the SCO achieved remarkable results, such as: deeper political and economic collaboration, promoting education, creating joint responses towards traditional and non-traditional security threats, modernization of agriculture, transport and its infrastructure. This resulted in signing the Treaty on Long-Term Good-Neighborly Relations, Friendship and Cooperation (Masayuki, 2010).<sup>4</sup> In that line the SCO started to arouse respect and indignation among nations (Mitrović 2007a; 2007b). The confirmation on international level, in terms of diplomacy and geopolitics, we can find in fact the SCO obtained observer status to the UN General Assembly in December 2004, signed Memorandum of Understanding with ASEAN and CIS in April 2005. At the same time, this Mechanism is not able to accomplish the results as EU, due to their understanding of sovereignty concept.

The SCO has two permanent bodies: the SCO Secretariat based in Beijing and the Executive Committee of the Regional Anti-Terrorist Structure (hereinafter referred to as RATS) based in Tashkent. Other but not less important bodies are: the Head of State Council, the Heads of Government Council, the Council of Minister of Foreign Affairs, the Council of National Coordinators. Within organizational structure of the SCO we can find two Non-governmental Bodies, which are: the SCO Business Council and the SCO Interbank Consortium. Beside these and with the aim to boost further cooperation, working groups have been established in a number of specific areas, including e-commerce (China), customs (Russia), quality and inspection (Kazakhstan), investment promotion (Tajikistan), and development of cross-border potential (Uzbekistan), with each SCO member state chairing a group and taking responsibility for planning cooperation in the relevant field. Creating such mechanism China, and other member states, especially Russia, want to promote their vision of security within Central Asia. The fact on that attitude we can find in Astana's Declaration, issued after summit which was held on July 5, 2005. Declaration of the then members acknowledged that given the completion of the active military phase of the antiterrorist operation in Afghanistan, the member states of the SCO deem it necessary for the relevant participating states of the antiterrorist coalition to set a deadline for the temporary use of said infrastructure and presence of their military contingents in the territory of the SCO member states (Shanghai Cooperation Organization, 2005).

This posture, China pursued as well by changes that occurred within its White Defense Papers. Reading these documents, we can see that insights of Sun Tzu are still influential, which has been showed in the following lines: meeting the requirements of confrontation between war systems in modern warfare and taking integrated joint operations as the basic approach, it is designed to bring the operational strengths of different services and arms into full play, combine offensive operations with defensive operations, give

<sup>2</sup> This is interesting because, the formal establishment of Shanghai Five came very shortly after NATO's initiative of developing and implementing the Partnership for Peace among Central Asian states. Kazakhstan, Kyrgyzstan, Uzbekistan and Russia joined Partnership for Peace in 1994. Tajikistan joined in 2001.

<sup>3</sup> Proceeding from the Shanghai Spirit, the SCO pursues its internal policy based on the principles of mutual trust, mutual benefit, equality, mutual consultations, respect for cultural diversity, and a desire for common development, while its external policy is conducted in accordance with the principles of non-alignment, non-targeting any third country, and openness.

<sup>4</sup> Based on this perspective, President Hu Jintao made a call for a "harmonious periphery" at a SCO leaders' summit held in Shanghai in June 2006, and proposed four measures to bring this about. His proposals were: signing a treaty on long-term good-neighborliness, friendship and cooperation to solidify amicable relations between SCO member states; stronger working-level partnerships for comprehensive development; human and cultural exchanges to build stronger social foundations; and, finally, a call for "openness and cooperation for the purpose of world peace," with the SCO as a venue for "broad-based international cooperation and proactive international exchange.



priority to the flexible application of strategies and tactics, seek advantages and avoid disadvantages, and make the best use of our strong points to attack the enemy's weak points (Ministry of National Defense of People's Republic of China, 2009). Papers emphasize the value of information system implementation, because in the new era, information and knowledge are of the crucial importance. Making one space "mute or talkative" depends on our capability of controlling information. Official Beijing changes names of White Defense Papers, what is normal praxis for them, because they, on daily level, introduce a new syllogisms and description, with a aim to describe, ideologically, their very complex and contradictory development. Still, their understanding of international order and traditional and non-traditional challenges imposed and created (by others), as well as their stances on multi-polarity, active defense principle, China Dream rejuvenation, strengthening political and ideological work over People's Liberation Army (hereinafter referred to as PLA), national sovereignty, American aggressive and agile involvement in the region, territorial integrity, respecting Consensus 1992, strong, simultaneously, military and peaceful and scientific development remained unchanged. The changes in economy, from quantity to quality are followed by the same changes within military affairs. They reduced a number of soldiers, but their defensive capabilities, are stronger, faster, more operative, more modernized and more innovative. Obviously, economic development is followed by modernizing military capabilities, because "making national defense building an organic part of its social and economic development, endeavors to establish scientific mechanisms for the coordinated development of economy and national defense, and thus provides rich resources and sustainable driving force for the modernization of its national defense and armed forces (Ministry of Defense of People's Republic of China, 2009). In the last document on defense, we can catch sight that China wants to focus its power on maritime strategies (Zarić, 2015). In favor of that we can read that traditional mentality that land outweighs sea must be abandoned, and great importance has to be attached to managing the seas and oceans and protecting maritime rights and interests (Ministry of National Defense of People's Republic of China, 2015). This also could reflect their, absolute, abandoning of Cold War mentality, that communist sphere was more focused on terrestrial and that capitalistic on maritime strategies. Does this move represent that China wants to combine both, terrestrial and maritime strategies, as well as both powers? Will China be stronger than Behemoth and Leviathan?

### 3. Main geopolitical objectives of the SCO Institutionalization

The main objectives that China wants to accomplish, enhance and deepen through the SCO we want to categorize in the following order: fighting against terrorism, separatism and extremism (three evils), economic stability (Opening West Campaign), soft power (showing what does it mean with Chinese characteristics and Shanghai spirit, improving sinophilia instead of sinophobia), enhancing its version of multilateral diplomacy (this trend of multi – polarity is accentuated in each White Paper as obvious new trend within the international order), territorial integrity (appeasing Uighur's separatism), preventing Afghanistan's negative effects to spill over, border stability and demilitarization of border lines, responding to changed Central Asian security structure after September 11. Thus, SCO serves to China in finding its position under the sun in the New Great Game.

Fighting against terrorism, separatism and extremism, which are defined as three evils, is incorporated in the Charter of this regional mechanism (Đorić, 2009a; 2009b; 2013). Simultaneously, these three challenges are always considered as one of main threats in Chinese White Papers. War against terrorism which America announced after September 11, Western hegemony used to promote its presence in Central Asia and in opening new bases for fighting war in Afghanistan (Enduring Peace Operation). This was great opportunity, as well as great challenge for official Beijing at the same time, because USA wanted through its discursive and military power to change Central Asian security architecture. China used this chance, as additional tool, to fight its problem of Uighur's separatism and its different understanding of human rights issue. China succeeded to put *East Turkestan Party*, *Turkestan Islamic Party*, *East Turkestan Islamic Party of Allah*, *East Turkestan Liberation Organization* on the blacklist of terrorist organizations. After appeasing terrorist inclinations of Uighurs, China started Opening the West



Campaign, where Xinjiang should be the hub in the economic relations between China and Central Asia. As noted by Yitzhak Shichor, Chinese posture towards Xinjiang is typically Chinese. He wrote that, borders have been opened widely to allow economic exchange (people as well as merchandise) with minimal restrictions, while firm and often brutal means have been employed at home, and pressure has been applied abroad, so as to maintain stability and guarantee Beijing's continued control over Xinjiang (Shichor, 2008:56). Also, newly created oil and gas pipelines, all are going through this very unstable province. Through numerous infrastructural projects official Beijing wants to include and resources of its west. On the other hand due to the American paw on Middle East, Malacca dilemma, instability of Hormuz straits, China has to open new sources and routes of providing energy security. In that way Central Asia, has enormous importance for China.

Through new repositioning in one part of Heartland, China wants to promote its soft power, in terms defined by Joseph Nye. Soft power as tool of shaping ideas and perceptions of others helps us to make them to want the same outcomes you want, and that requires an understanding of how they are hearing your messages and fine-tuning it accordingly (Nye, 2004). Through thorough enhancing its level of soft power in Central Asia, "sinophobia" will be changed by "sinophilia". In the past tsarist Russia developed "sinophobia" through accentuating that Han people are enemies to Muslims. Skyrocketing its level of soft power, official Beijing could persuade international audience that with Chinese characteristics does not mean emotional recalling tributary system through which China communicated with other countries in the past. In conforming that, China introduced Shanghai spirit, good neighborhood diplomacy and peaceful development for emphasizing its stance that every country has its own path of development in vein with its own history, tradition, social, political and economic capabilities. The same concepts, by the Western political thoughts were defined as the tools for jeopardizing democracy and promoting charming campaigns, which will result in enhancing the security dilemma within the international order.

From the Chinese point of view, that kind of posture will boost the level of mutual trust and many issues will be resolved much easier. One of the issues is related with the border misunderstandings. Russia and China has border issues, about Ussuri River (Zhenbao/Damansky Island), which resulted in a absolute diplomatic split in 1969. Also, after dissolution, of Soviet union, and creating new states in Central Asia, China questioned 22 percent of the total surface area of Central Asia: it laid claim to a territory stretching from Semirechie to Lake Balkhash in Kazakhstan, almost all of Kyrgyzstan, and some 28,000 km<sup>2</sup> in the Pamir region of Tajikistan. However, with the opening of negotiations, the Chinese authorities toned down their claims and opted for a "good neighborhood" strategy with the new independent states. They agreed to reduce their territorial claims to only 34,000 km<sup>2</sup> chiefly out of a desire to secure allies in Central Asia. It signed border demarcation treaties with Kazakhstan in 1994 (some still disputed zones were settled in 1999), with Kyrgyzstan in 1996 (here also, resolutions over disputed areas were settled in 1999), and with Tajikistan in 2002 (Peyrouse, 2016:15). Also, joining India in this prestigious Mechanism, China and the biggest liberal democracy, should, finally, resolve misunderstandings of their border issues. All these Chinese efforts in creating stable gateway instead of shatterbelt within Central Asia, could also be read as efforts for Chinese repositioning under the shadow of the New Great Game. Interested game players are: Japan through Japan + Central Asia Dialogue, Eurasian Diplomacy from 1997 and through Silk Road Energy Mission, additionally enriched by Six points action plan with Russia. Turkey shows its eagerness through ethnic and language identity. EU through numerous infrastructural projects, TRACECA is one of the most important. USA is interested as world policeman to reshape security geometrics and to establish democracies.

#### 4. Conclusion

Multilateral regionalization of Central Asia by China through the SCO mechanism has profound, multi-layered, multi-vector and aims which can be analyzed from many stances and points of view. With this paper we wanted to show that Central Asia has enormous importance in new Chinese security discourse. At the same time, this region is the first focal point of Chinese pretentious, gigantic and farsighted project known as Belt and Road initiative. With the aim to manage and implement this project, China has to

create harmonious and suitable environment in its vicinity. With the scope to set that objective, China makes and pursues the mixture of good neighborhood and peripheral diplomacy, reinforced by combination of geo-economical “carrots and sticks”. This kind of stance is in line with Chinese new domestic complexities, historical heritage and cultural perception of security.

Conducting the researches on this very complex subject, we found that this region is under shadow of the New Great Game. Beside Russia, and its geopolitical, geo-economic and geostrategic irredentism, the new game players are China, Japan, USA, EU, and Turkey. The New Great Game is more complex than previous one, because we have more “players”, their starting positions are changed, instead of imperial politics we have refraction of geopolitics, geo-economics, high politics and geostrategic, which implies that their objectives are now more profound.

It will be interesting to see, if there will be some kind of new nexus between the SCO and arrangement known as China+16CEEC Mechanism in terms of Mackinder's theory.

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## **ASPECTS OF ENERGY SECURITY WITHIN NATURAL GAS SECTOR OF THE REPUBLIC OF SERBIA**

**Abstract:** The paper shows some current but also possible, as well as significant aspects and approaches to energy security issues related to global energy and security challenges, risks and threats to which the world is being exposed in the present and continues to be in the future. In this light, we also show some specific problems of the energy security of the Republic of Serbia, since this area is of essential importance for the economic and political stability of each state. The energy dependence and sensitivity of energy infrastructure, as well as the exhaustion of conventional energy sources, represent a real basis for endangering energy security and a real challenge for the stability of the Republic of Serbia. The needs of the Republic of Serbia for oil and gas are mostly handled by imports, which means that the Republic of Serbia depends on the decisions made by other countries.

**Keywords:** Energy security, gas pipelines, geopolitics, energy infrastructure

### **1. Introduction**

Energy is not only a market category for business (with the greatest volume on a global level), but it is also a means for political pressures and blackmail. The interests do not have to be directed towards countries that suffer damage, and to which supplies, export and sale are being denied. Without a reliable approach to energy, no country can expect to have sustained or sustainable economic development. The use of fossil fuels has created a system of interdependence, therefore the countries, which are required to import fossil fuels, are in a subordinate position. It is clear that the energy security problem has a multifaceted significance that influences greatly on global political movements and international relations, as well as creating the internal strategic choices of a country. Dependence on energy imports for each country means greater energy insecurity, unfavorable foreign trade balance and greater dependence on imports.

At this moment, renewable energy and natural gas is the energy product of the future. However, the use of renewable energy sources still requires significant financial resources, which countries compensate for various types of subsidies. On the other hand, natural gas is energy that not only for being more environmentally friendly (low emission of harmful gases) than other types of conventional energy sources, but because it is the only primary form of energy that can be directly used, with basic preparation. All other forms of energy (crude oil, water power, nuclear fuel) must be transformed into more suitable forms, which requires the construction and maintenance of an energy transformation plant.

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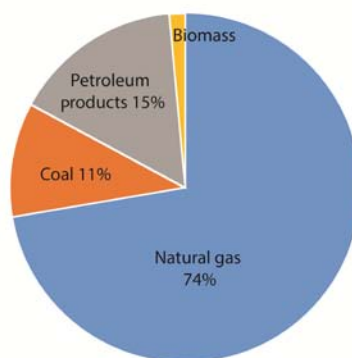
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## 2. Energy consumption in the Republic of Serbia

Total final energy consumption in 2016 was 8,935 Mtoe, in 2015 8,885 Mtoe (Mišev, 2017). The largest energy consumers are households with over 30%, then the industry with approximately 25% and traffic approximately 23%. As for electricity, 35,912 GWh was produced. The production of thermal energy amounted to slightly more than 31,000 TJ, while the final consumption was registered at the level of 30,000 TJ. Natural gas production (74%), coal (11%), petroleum products (15%) and biomass (1%) are used for the production of thermal energy in heating plants (Komora Srbije, 2018). Observed by sectors of energy consumption, households participate with 52%, industry with 38% and public and commercial activities with 10% of total final consumption. Serbia's problem is high energy intensity, households only use over 50% of used energy for heating the rooms and sanitary water. Energy intensity in Serbia is two to three times higher than the energy intensity in the EU countries.

Figure 1. Production of heat energy



Source: (Mišev, 2017)

Natural gas is produced from 78 drill holes. Storage activities and management of natural gas storage are carried out by only one company, *Podzemno skladište prirodnog gasa Banatski Dvor* (*Underground Natural Gas Warehouse Banatski Dvor*). The current available storage capacity is 450 million m<sup>3</sup>. The largest natural gas deposits are located in Vojvodina, whose capacities meet between 22-25% of the current demand for natural gas. Estimated **gas reserves** in Serbia amount to 48.1 billion m<sup>3</sup> and annually approximately 500 million m<sup>3</sup> of gas is produced. The production of natural gas is performed by the only company *Naftna industrija Srbije* a.d. Novi Sad, while transport and management of the transport system are performed by two companies: *JP Srbijagas* and *Yugorosgaz* a.d. The length of transport system is approximately 2,423 km (Komora Srbije, 2018). Serbia has two interconnections with other gas systems: Hungary-Serbia (Kishkondorozhma) gas pipelines – the entry point, and Serbia-BiH (Zvornik) – the exit point (Stanojević, Mišković, & Mišev, 2017). In 2013, legally valid contract, between *Gazprom Export* and *Yugorosgaza* for deliverance of Russian gas (1.5 billion m<sup>3</sup>) to Serbia, was signed and it won't expire before the end of 2021. In the end of 2017, the Protocol on Amendments to the Agreement was signed, according to which the volume of Russian gas delivery from 2018 will be increased from 1.5 billion m<sup>3</sup> to 2 billion m<sup>3</sup> of gas annually.



The consumption structure in 2016 is presented in Figure 2 (million cubic meters) (AERS, maj 2017):

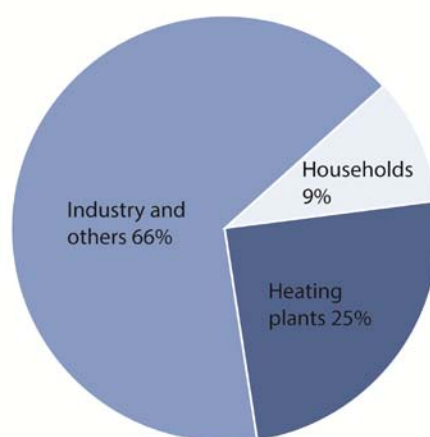
Households 254

Heating plants 122

Industry and others 1.850

TOTAL 2.226 million m<sup>3</sup> of natural gas.

Figure 2. Structure of final consumption of natural gas in 2016



Source: (AERS, maj 2017)

With domestic production of 399 million m<sup>3</sup>, only 16% of needs could be met in 2016, while natural gas imports from Russia under a long-term contract amounted to 1.807 million m<sup>3</sup>. A total of 2,226 million m<sup>3</sup> of natural gas was consumed, which is 9,9% more than in 2015, 2,285 million m<sup>3</sup>, or 15% more than in 2014 with 2,166 million m<sup>3</sup>.

Chart 1. Gas production 2010

Production years	2010	2011	2012	2013	2014	2015	2016
Delivered to the transport system	331	441	466	451	453	422	388
Delivered to the distribution system	21	21	18	17	14	10	11
Total production	352	462	484	468	467	432	399

Source: (The Program for Implementation of Energy Development Strategies 2017-2023)

According to *The Program for Implementation of Energy Development Strategies 2017-2023 (Chart 1)*, the production of this energy product is expected to decrease, which means that the import dependency will increase over the years. The length of distribution network from 2012 to 2016 had increased for 7.8% (from 15,348 to 16,653 km), whereas the number of new connections had increased for 4,600 going over 267 thousands (Agency, 2018).

### 3. Natural gas in the system of energy security

Being the cleanest type of fuel, the usage of gas has been increased and it has been estimated that will become the most important energy source in the world, within 20 years. As for Serbia, just like majority of Europe, the country depends on the import of this fuel from Russia (the largest gas exporter in the world, with confirmed reserves in 2017 of over 47.8 billion m<sup>3</sup>, followed by Iran 33.5 billion m<sup>3</sup>, Qatar 24.3 bln m<sup>3</sup>, USA with 8.7 bln m<sup>3</sup>, Saudi Arabia with 8.6 and Turkmenistan 7.5. Serbia ranks 66 with 48.1 bln m<sup>3</sup>) (CIA, 2017). Energy dependence on imports is one of the indicators used to assess the energy security of the country.

*Gazprom* supplies gas to 25 European countries, including the Republic of Serbia. Two thirds of total consumption of natural gas in the EU is from imports: the biggest coming from Russia 34%, followed by Norway 31% and Algeria 14%. Even though, the biggest European natural gas producers are the Netherlands, Great Britain and Denmark, their reserves are rapidly decreasing and the production is dropping every year. The additional problem is that Russia delivers 80% of gas through one route, in quantity exceeding 120 bln m<sup>3</sup> annually, through the Ukrainian gas pipeline system *Druzhba*, with a total length approximately of 38,000 km and capacity of 175 billion m<sup>3</sup> per year (Mišev, Milanović, & Kaloserović, 2017). This way, Russia has the monopoly over the supply, and Ukraine has the monopoly over transport routes. Following to the economic logic, Russia won't allow to lose its revenue from the export of energy products, nor will Ukraine its transit capital. In the year of 2011, when the North Stream pipeline was built at the bottom of the Baltic, about 70 billion m<sup>3</sup> of gas through the Ukrainian gas transportation system has been delivered per year. However, the Ukrainian crisis in 2006, 2009 and 2014, when gas deliveries were briefly reduced for 50%, has shown that political decisions go beyond economic calculations and that in this kind of situations the logic of decision-makers is not applicable. Even though Ukraine and Russia concluded an intergovernmental agreement on gas deliveries for the period 2009 – 2019, it is becoming more evident that Russia does not intend to renew the contract. This would directly affect Serbia, since more than 80% of its gas needs are settled with imports from Russia, coming only through one direction, Hungary and Ukraine. Also, this equally endangers all countries in the region, considering that the Balkan countries depend much more on the gas import than developed countries. The import of natural gas covers approximately 69.5% of consumption, which is significantly higher in comparison to the EU average import dependence of natural gas of 53.5%. Trying to solve the problem of gas supply, in 2008 the Republic of Serbia signed the agreement with the Russian side on the construction of the gas pipeline *South Stream (Južni tok)*.

However, in 2014, the project *South Stream* (Russia, Bulgaria, Serbia, and Europe) was cancelled, as well as it was the project *Nabucco* (Azerbaijan, Turkey, Romania, Bulgaria, Hungary and Austria) in 2013. European opposition was created in conjunction with the United States, with the aim of retaining the unipolarity of the world order, especially when it is known that the agreement on the construction of the *South Stream* was reached before the entry into force of the Third Energy Package in 2009, which requires the owners of the gas network can't be the same as the owners of the energy product – gas. From this regulation, TAP gas pipeline was freed, which should transport Azerbaijani gas and 50% capacity of the OPAL pipeline (continuation of the trans-European gas pipeline Nord Stream, built in 2011 that connects Russian Federation with the Czech Republic and Germany). However, the European Commission is persistently trying to force Russia to give up its export monopoly, while *Gazprom* is seeking to exempt the *South Stream* pipeline from regulations of the Third Energy Package. In such a security environment,

CESEC has been established, with the aim of preparing a plan for the integration of the gas market and the development of interconnections and infrastructure in Central and South-Eastern Europe. With the help of the EU, the United States increasingly advocates the diversification of supplies "independent of Russian gas geopolitics".

The challenges of the security structure today include much wider areas, and not just the military area. The USA's dominance over the EU politics is being shattered by Russia with energy rather than military means. Therefore, the dominant position of Russian companies in Southeast Europe is not any coincidence, but a long-term political strategy. Apart from Ukraine, Russia exports gas to Germany via the *Nord Stream* pipeline beneath the Baltic Sea and through the *Jamal-Europe* gas pipeline through Belarus and Poland. Today, *Gazprom* Company is engaged in the implementation of alternative projects in Europe, among which the largest are the *North Stream 2* (55 billion m<sup>3</sup>) and *Turkish Stream* (63 billion m<sup>3</sup> per year). Turkey imports 65% of gas from Russia and 45% of gas from Azerbaijan and Algeria. Besides, the reason for insisting on the *Trans-Adriatic* gas pipeline lies in the ambitions of the Balkan States to reimburse their transit positions, but also in Azerbaijani attempt to upgrade its energy policy, although without sufficient capacity to satisfy the EU market. Serbia consumes approximately 2 billion m<sup>3</sup> of gas annually. The estimated capacity of the *South Stream* was 63mlrd m<sup>3</sup>, meaning that Serbia would have been a serious transit gas base. On the other hand, the gas pipeline for gas transport from the Azerbaijani gas field, *Shah Deniz*, has lower planned capacity (10-15 bcm / y) than Russian gas pipelines. This system includes the following gas pipelines: *South Caucasus (SCP)*, *Trans-Anadolia (TANAP)* and *Trans-Adriatic (TAP)* across the territories of Azerbaijan, Georgia, Turkey, Greece and Albania. All of these projects can hardly reach 120 billion cubic meters of gas annually, which the present quantity of gas in gas pipelines passing through Ukraine.

Picture 3. Gas Pipeline Map



Source: (<https://www.srbijadanas.net/balkanske-gasne-igre/>)

#### 4. Conclusion

Internal and external factors are prerequisites for the security of national energy systems. Keeping the energy security is of particular interest to the Republic of Serbia, being the essential importance for economic and political stability. On the level of current production, coal reserves are estimated to 50, while oil and gas to 20 years. Serbian total energy reserves are gradually decreasing starting the issue of

the state capacity to resist oscillations on the energy market. In this way, satisfying energy needs from scarce domestic sources jeopardizes significantly the capacity of the state to lead an independent policy, but also a sustainable economy resisting to external turbulences and strikes. Energy products are necessary for starting the entire sectors of transport, industry, defense and household, since the life of a modern man is unimaginable without the use of these products.

Under the pressure from the Atlantic lobbies, the EU entered into energy, political and economic conflicts with Russia. The circumvention of Ukraine is possible since Germany and its neighbours get their supplies through the *North Stream*, while other countries will be able to do the same due to the *Turkish Stream* Project. The goal of the EU is to eliminate energy dependency from Russia by 2019 by supplying gas from the countries of the Middle East and the Caspian region that have gas reserves but so far their lack in transport mechanisms (gas pipelines or ships) have not been solved, as well as whether gas reserves from these countries can cover the increasingly demanding market in Europe. Certainly this problem left space with great powers for domination and monopoly in the energy sector and creating a new security architecture in Europe.

Up until the *South Stream*, Serbia had not been planned, not even as one of the transit countries in any gas project. Neither the Trans-Adriatic Pipeline, nor the Trans-Anatolian Pipeline go through Serbia. Diversification of natural gas supplies through the so-called *interconnector*, such as the construction of gas interconnection with Bulgaria (the two-way gas interconnection *Niš – Dimitrovgrad* project is 150 km long, with annual capacity of 1.8 billion cubic meters), has far less capacity than main gas pipelines, as it only joins two markets. The amount of gas that can be transported this way is a supplement but not a substitution / alternative to the main gas pipeline such as the *South Stream*.

The moment will come when the world production won't be able to track the global consumption, which will result in price hike, monopoly on the fossil fuel market and serious energy crisis. As well as on the global level, domestic reserves will also be depleted, which makes it more than clear that Serbia's import dependence will increase during the succeeding period. Therefore, it is necessary to create serious negotiating positions in finding alternative sources of supply, not only in terms of sustainability of the energy system, but also the development of economic capacities being the transit country for natural gas and oil. Besides, energy dependence had become economic and political issue, but also security challenge for the Republic of Serbia in an altered security environment.

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## EUROPEAN UNION ENERGY SECURITY IN TRANSFORMED SECURITY ENVIRONMENT: NATO ENERGY SECURITY

**Abstract:** Energy security as a dominant political and security issue not only at the global but also at the level of European Union as a global actor, in the present transformed security environment – represents perhaps the most relevant topic (or, at least, one of them) among those which belong to exclusive club of the most desirable ones. The upcoming year of 2019, as a year of potential change of European energy map, authoritatively requires extensive research, having in mind uncertainty that achieving and ensuring of energy security implies under the rapidly changing conditions and geopolitical surroundings. The aim of this research is to draw attention on potentials of NATO energy security and to show how the Energy NATO shall be one of the pivots of EU energy security in the future, as scientifically foreseen by the author. The current dynamics and also the growing tendency of the EU's energy dependence, as one of its constants, will produce in the future appropriate consequences not only for the economy but also for its foreign policy, which along with the existing energy partnerships – requires new ones, which will further determine the fate of energy dependent Union torn between seemingly inviolable authorities in the energy sector (United States of America and Russian Federation, in the forefront). Methods used during research include comparative (correlation and document analyses, especially) and statistical as well as modeling method.

**Keywords:** energy security, energy, EU, NATO, natural gas

### 1. Energy security of the EU

When it comes to energy security, it is important to remember that we are always talking about political and security category of the first order and of all levels – from global, through regional, to the level of national state. In concrete case, the focus is on the energy security of European Union as a supranational organization, primarily in Eurasian, with „about 75% of world's population and about ¾ of all known world's energy sources" (Brzezinski, 1997) and then in wider, global, context. The way it is achieved and ensured in a transformed security environment, under nowadays rapidly changing conditions, along with the role of NATO - is a central theme of the upcoming analyses.

There is no unique definition of energy security, in line with a lack of general agreement on what exactly it represents, having in mind different interests of subjects that participate in its realization and which, according to whether they belong to the group of energy producers' (Kolev, 2011) consumers' or countries of energy transit - strive to achieve it, each for itself, continuously and appropriately. Therefore, generally a accepted definition does not exist. But in addition to the definition adopted by the International Energy Agency: „The IEA defines energy security as the uninterrupted availability of energy sources at an affordable price" (International Energy Agency, 2017), in the case of the EU as a central category of scientific work, bearing in mind at the same time that the EU is importing energy and that energy security is viewed as an elimination or reduction of all dangers, challenges and threats that could jeopardize the import of necessary energy sources - the author adopts the standpoint of the Union's energy policy. There, after the 1st green book (Towards an European Strategy for the Security of Energy Supply, 2000), in the 2nd one (A European Strategy for Sustainable, Competitive and Secure Energy, 2006) a new paradigm has been stated (so called holy trinity) in the field of energy, in the form of three pillars: competition, security of supply and sustainability - as a conditions of the implementation of energy policy or ensuring energy security. The energy issue relies on concrete policies and measures, which will say that a sign of equality could be put between energy policy as a sectoral policy regulating the field of energy and energy security as a predominant political and

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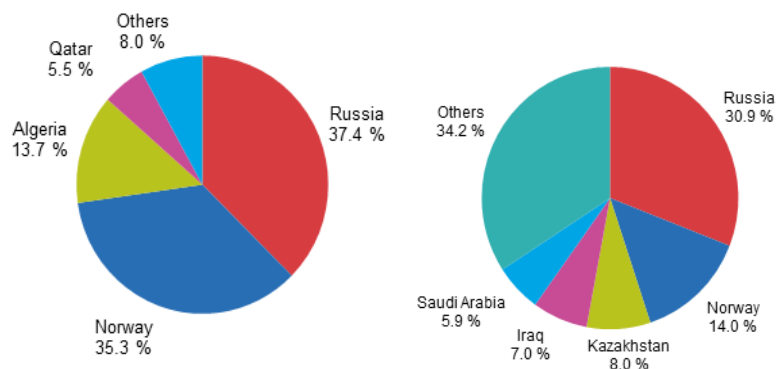
security issue started to be treated in an adequate manner only since the year of 2006. It is natural, therefore, that energy security will represent a different category for each of the country concerned. But, the fact of interdependence of energy subjects must not be out of sight, since the realization of energy security represents a two-way street. First of all, this refers to the relations between the EU and the Russian Federation as actors of mutual energy dependence, as soon as the focus of the analysis will be shifted to the role of the North Atlantic Treaty Organization.

In the transformed security environment where rapidly changing conditions and geopolitical surroundings are its constituents which primarily stand out, on the scene is an increased uncertainty of ensuring energy security. Increased global competition for energy resources, in the first instance natural gas; terrorist threats for energy infrastructure; cyber terrorism; re-drawing of borders or simply change of geography are only some of the most common challenges connected to European energy security as „the artery of our society, which is increasingly threatened” (Report on the Implementation of the European Security Strategy, Providing Security in a Changing World”, General Secretariat of the Council of the European Union, 2009). The growing dependence of the EU takes on a worrying situation, where it is predicted that from 1/2 (2000) will amount to 3/4 of total energy needs (2030) (Mišćević, Simurdić, 2010) and when it is currently culminating (taking into account Brexit and recognizing UK as one of energy more independent member states). On the other hand, a growing tendency of energy dependence as one of the EU's constants would produce, in the future, adequate consequences not only for its economy but also for foreign policy (Kissinger, 1975). As an entity that imports energy, primarily natural gas and oil, therefore - which depends on others, the EU is often expected to practice high level of tolerance, which often entails a series of compromises. Since the 20th century has been a century of oil (Naj, 2013) and the 21st will be a century of natural gas - focus of the global public will remain in areas rich in energy, while entities to which the ownership or the control over sources of blue energy is attributed - in large part, directly or indirectly, will determine fate of energy dependent subjects among which - of the EU.

## 2. Year of 2019 – the year of potential change of European energy map

European Union in the story of energy security, as one of the most complex global challenges, and in the battle energy-field of seemingly inviolable authorities in energy sector, has found itself, as always, torn between them. Current European energy map implies partnerships with: Russian Federation, Norway, Ukraine, Belarus, Switzerland, North Africa (Algeria, Nigeria, Morocco, Tunisia, Egypt), Middle East (Qatar, Libya, Iraq, Saudi Arabia), USA (liquefied natural gas - lng), Trinidad & Tobago and the others.

Figure 1: EU imports of natural gas and petroleum oil, shares in value of main trading partners – 2017 first semester



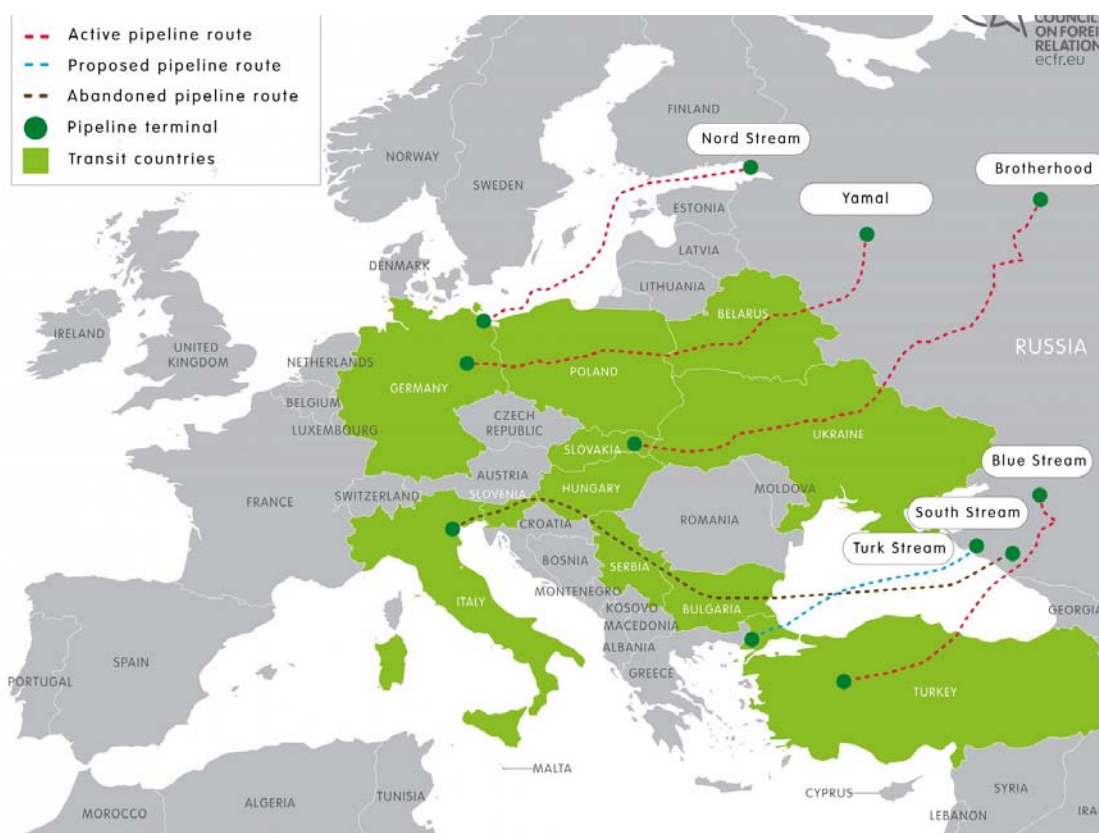
Source: (Eurostat, 2018)

Therefore, in summary, Russia is the largest EU's energy partner. "The growing fear of supply interruption, represented in European public opinion is more than justified. Although the reduction of energy dependence on Russia is not only part of the official documents of EU energy policy, but also

part of everyday discourse, both within the academic community, according to Baran (2007), , “given Russia’s high-level political involvement in energy issues, the EU needs a corresponding degree of intensity. Specifically, Europe must realize the very real foreign and security policy ramifications that the supply of energy has. Enhancing cooperation on energy security within the EU is essential to withstand Russian pressure”, (pp. 131- 144) and among citizens, the presumption is that the Union will continue to depend largely on the Eastern neighbour in the near future, as long as the alternative solution arises. Share of Russian gas in EU member states consumption (Clingendael International Energy Programme, 2013) shows that: three of them have 100% dependency (Estonia, Latvia and Finland); 90-95% (Bulgaria and Czech Republic); about 90% (Slovakia); 60-65% (Hungary, Greece, Poland); about 55% (Slovenia and Austria); up to 40% (Germany and Belgium); about 37% (Croatia); less than 30% (Luxembourg, Italy, France and Romania); up to 10 % (Netherlands), while nine of them (Cyprus, Denmark, Sweden, Ireland, Malta, Portugal, Spain, Great Britain, Lithuania) do not import gas from Eastern neighbor’s, among which the last one has shifted to liquid natural gas and has become energy independent, and according to Michael R uehl, Head of NATO’s Energy Security Section (2016) “have done a tremendous job in bringing energy security on the agenda”.

Unions, as a high ranked energy dependent subject, however note the production of energy. The EU produces<sup>1</sup> a certain amount of energy: (Netherlands, among the top 16: 1935 bcf<sup>2</sup> of dry natural gas), while United Kingdom as a member state was energy significant link for the EU (at 19th world’s place with 1062 thousand barrels of oil per day of oil and 1460 bcf); Germany (37th with 159 tb/d and 44th with 308 bcf); Denmark (39th with 146 tb/d); Italy (43th with 133 and 47th with 239 bcf); Poland (49th with 217 bcf); Romania (50th with 93 tb/d and 41th with 394 bcf). Accordingly, exports of energy indicate following data (among the top world’s 50: Netherlands, 1800 bcf; Germany, 1148 bcf; UK, 502 bc f; France and Austria 191 bcf; Spain, 179 bcf; Denmark, 77 bcf; Belgium 60 bc f; Hungary, 19 bcf; Italy, 7,8 bcf; Poland, 2 bcf). Energy is consumed the most in: Germany, the 10th world’s place with 2368 tb/d and 8th with 2873 bcf; France, the 13th with 1692 tb/d and 28th with 1343 bcf; UK, the 15th with 1547 tb/d and 10th with 2544 bcf; Italy, 17th with 1274 tb/d and 12th with 2385 bcf; Spain, the 19th with 1247 tb/d and 32nd with 946 bcf; Netherlands, the 21th with 962 tb/d and 24th with 1009 bcf; Belgium (31st with 650 tb/d and 41st with 605 bcf); Poland (32nd with 533 tb/d and 39th with 643 bcf); Sweden (42nd with 304 tb/d); Greece (43th with 295 tb/d); Romania (47th with 369 bcf) and Hungary (48th with 333 bcf). Additional facts about imports of natural gas to the EU show: Germany, as a world’s 2nd gas importer – 3620 bcf; Italy, as a 5th – 2164 bcf; UK, as a 7th – 1572 bcf; France, as an 8th – 1567 bcf; Netherlands, as a 10th – 1338 bcf; Spain, 12th – 1144 bcf; Belgium, 17th – 664 bcf; Poland, 24th – 428 bcf; Austria, 25th – 405 bcf; Czech Republic, 28th – 264 bcf; Hungary, 29th – 240 bcf; Portugal, 31st – 166 bcf; Slovakia, 33th – 156 bcf; Ireland, 34th – 150bcf; Greece, 41st – 112 bcf; Bulgaria, 43th – 101 bcf; Finland, 46th – 96 bcf; Lithuania, 47th – 78 bcf; and, among the first 50 – Serbia with 56 bcf. Considering crude oil proved reserves, UK while member state, was ranked 30th with 2,8 billion barrels, while Romania, Italy and Denmark share a position with 0,6 bb. When it comes to natural gas, Netherlands holds 27th position with 27 trillion cubic feet, UK 7,3 tcf and Romania 3,7. Norway is energy the most powerful country on European soil, but not EU member. Union is especially vulnerable in the field of energy security, because it does not have enough oil nor gas (insufficient to meet the future needs and with constantly falling own exploitation). As politically divided as lately and in front of energy dilemmas, Europe is facing great challenge.

Figure 2: Main Russian pipelines into Europe



Source: (European Council on Foreign Relations, 2017)

(This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo declaration of independence)

“The biggest attention is paid on an issue of energy supply”(Todić, Dimitrijević, 2012) and since we refer to the 21st century as a century of natural gas, which highlights the ecological fuel or fuel of the future, the EU remains consistent with insufficient coverage, which negatively affects its overall security<sup>3</sup>. The main problem still remains as the behaviour of transit states, „which are supposed to be responsible for the continuous operating of infrastructure and exclusion of all types of risks for natural energy transportation”<sup>4</sup>. In this respect, the EU is focused the most on Ukraine (decisive role by 80% of total gas addressed to Western Europe, thanks to the geographical position as well as the energy infrastructure built in the era of USSR) and Belarus (20%, by decades). Consequently, the necessity of new energy partnerships is imposed. The Russian announcement of closing gas flow through the territory of Ukraine, reinforces this crucial topic and certainly accelerates activities on research and finding new solutions as much as it spreads and enlarges existing fear among EU political and public sphere. With 21141 bcf Russia is 2nd world gas producer (EIA, 2015), behind US and in front of Iran and Qatar. With 11240 tb/d of oil holds 3rd position (EIA, 2016) behind US and in front of Saudi Arabia. It is world's leader (EIA, 2015) in gas exporting (6983 bcf). Concerning oil and gas proved reserves (EIA, 2016) – Russia holds 8th position with 80bb and again 1st by owning 1688 tcf of gas. So, “Russian global energy remains the most contentious question in high politics as natural gas represents energy alternative for the whole world and Russian unattainable advantage. Because of that, commentators notice, in Cold-war manner, that if Gazprom closes its pipelines' valves – that could cause more damage to Europe than the Red Army” (Đukić, 2009, p. 38).

The EU is trying to keep position of a global player in the multipolar world, but unlike other members of this exclusive club, EU is energy vulnerable, while at the same time, with about 500 million inhabitants - represents the third largest energy market in the world (after fast growing energy markets of China and India). Paradoxically, although the EU was created precisely on the idea of energy resources (coal and steel) and while it is economically recovering and, as it would be desirable - strengthens politically, in the energy security sphere, inverse proportional - its impact is decreasing and politics and economy can not easily find a satisfactory solution against the rising energy dependence. The question is what if the discontinuation of Russian natural gas flow through Ukraine happens, knowing that via this territory the largest amount is transported? And, what would be the alternative (which sources and routes and which amount of energy)? Would the EU member states be full satisfied or just partially satisfied? Non extension of the contract between Russian Federation and Ukraine has been stated by the highest officials during the period of announcement of the Turkish Stream as a replacement for cancellation of the South Stream (the end of 2014/beginning of 2015). Now, the general impression is that potential change of European energy map is more likely having in mind reactivation of the story of Turkish Stream during the last year, which is planned to deliver gas to the Turkish-Greek border (both NATO member states) and further – to Central Europe. It is already known that Turkey, as a transit state, could increase its backmailing potential, in addition to a number of bilateral problems (not only with Russia but also with the EU). The consequences might be multiple. The way the gap between the beginning (cutting off supplying across Ukraine) and the end of 2019 (activating of Turkish Stream, if feasible) would be filled imposes a category of time as an important one. Redistribution of gas between West (the EU) and East (Asia) would become more serious by releasing The Power of Siberia Pipeline to China (by the end of 2018, as planned).

Figure 3: key existing and planned energy projects in the Southern Corridor Projects (red line: Baku-Tbilisi-Ceyhan; yellow: Baku-Tbilisi-Erzurum; violet: Trans-Adriatic; blue: Trans-Anatolian; dark blue:

Trans-Caspian)



Source: (Stratfor, 2015)

Emphasizing new energy sources and routes embodied in the Southern Gas Corridor (Caspian Sea and Caucasus area), but also energy potentials of Mediterranean (Cyprus and Israel); Iran and of course expansion of LNG market as a realistic alternatives in order to realize diversification of energy supplies and to prevent potential crises, EU tends to reduce dependence from Russia. Non Russian partnerships are considered as reliable suppliers. Since transit countries still represent the biggest problem to secure the supply of energy, that would be desirable if the Union provides as much as possible direct projects which would bypass other states especially undesirable ones (e.g. North Stream I and II, through calm, water, environment). Anyhow, EU should aim to reduce the number of them in order to achieve at least minimum of predictability. If not possible, then transit countries should be EU or NATO member states.



### 3. Potentials of NATO energy security

It is clear that we are talking about the Union in transformed security environment, but also immersed into own crisis. Therefore, EU is an energy insecure economic power torn between Russia and the United States, as it was sometimes between the East and the West. Having in mind fact of the lack of military power and the absence of a unified common security and defense policy (CSDP)<sup>5</sup>, in terms of energy security, the question arises: whether or not NATO will play a key role in the process of ensuring energy security of the Continent?

NATO's role in energy security was first defined in 2008 at the Bucharest Summit. "Energy security is a vital element of resilience and has become (Bucharest Summit Declaration, NATO, 2008) more important in the past years due to the new security context"<sup>6</sup>. One should remember that US energy umbrella as well as security one (NATO) have enabled, despite energy crises, uninterrupted supply of energy and also the development of Western Europe. „In the coming years, Europe's dependency on oil and gas will be growing. Rising powers such as China and India will require a never greater amount of energy. Some fossil fuels will become ever harder and more expensive to access. Other factors are the intensifying debate on climate change and on the future of nuclear power, and armed threats to energy supplies, be they through terrorist attacks or piracy. Energy supply systems are increasingly interconnected by computerized transmission networks which are vulnerable to cyber attacks. Finally, the political instability in many energy producing states remains a source of concern" (NATO, 2016).

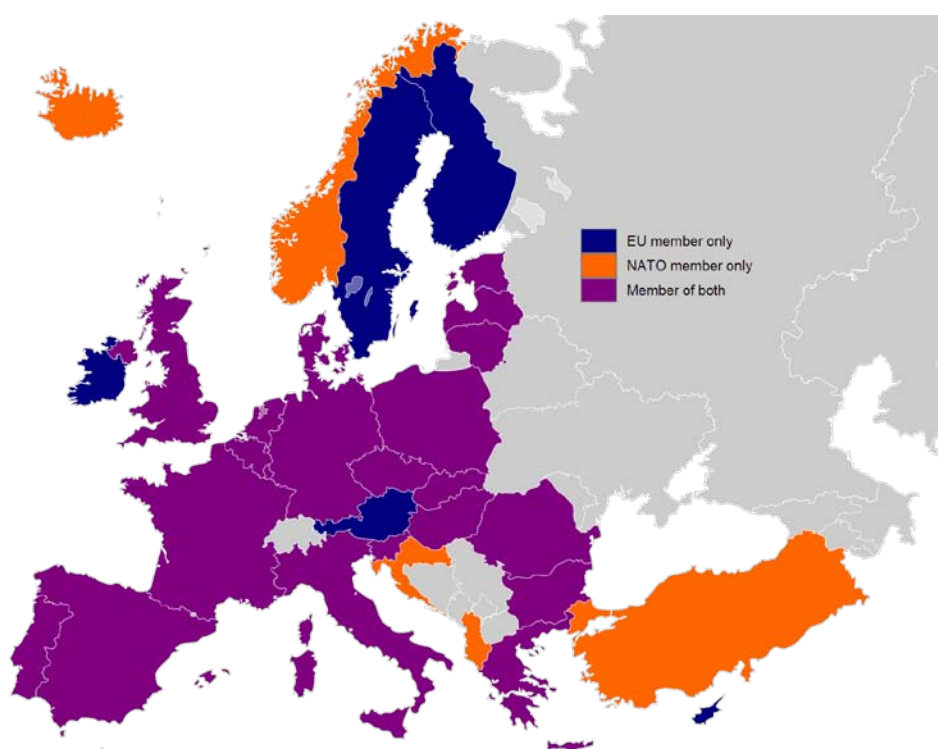
"All countries are increasingly reliant on the vital communication, transport and transit routes on which international trade, energy security and prosperity depend and, for this reason, they require greater international efforts to ensure their resilience against a attack or disruption. Moreover, some NATO countries will become more dependent on foreign energy suppliers and in some cases, on foreign energy supply and distribution networks. As a larger share of world consumption is transported across the globe, energy supplies are increasingly exposed to disruption that could affect the security of their societies and have an impact on NATO's military operations. While these issues are primarily the responsibility of national governments, NATO is supporting national authorities in enhancing their resilience against energy supply disruptions that could affect national and collective defense, by continuing to consult on energy security and further developing of its own capacities. While those threats could affect the international security environment and can have far-reaching security implications for Allies, to this end, NATO seeks to increase its strategic awareness and competences in supporting the protection of critical energy infrastructure, as one of the most vulnerable assets especially in areas of conflict. All countries are increasingly reliant on vital energy infrastructure, including in the maritime domain, on which their energy security and prosperity depend. NATO's navies provide surveillance of maritime routes and choke points. By protecting important sea lanes, NATO's counter-piracy operations also make an indirect contribution" (NATO, 2016).

In the future, "in order to more systematically define NATO's role in energy security, the Alliance will intensify its dialogue with other institutions, such as the EU, the IEA, the OSCE and the Energy Charter, as well as with the private sector. Discussions between the North Atlantic Council with individual partner countries or groups of partners ("28+n") on energy security could also become a more regular part of NATO's political agenda. Upon request, NATO could also set up training and defense reform teams for the protection of critical infrastructure. Such steps would correspond to NATO's core competencies and underline the Allies' determination to regard energy security as part of a comprehensive approach to security" (NATO, 2016). It should not be forgotten that many of those countries are important energy producers or, which is in the case of European Union even more important - transit countries. For those reasons energy security matters to Alliance, which has solid potential to be first of all a leverage of energy survival and then even energy expansion of the EU.



From the year of 2012, within NATO, it has been established Centre of Excellence for Energy Security established, with appropriate ways of support for NATO energy security activities. One might say that, in the near future, some Energy NATO or called under some other name, would serve as a pivot (or one of them) of EU energy security. As a part of its tasks, on its political and security agenda, the inevitable part will be continuation of problem solving with Russian Federation. Special attention could be paid in the direction of Arctic and future exploitation of its huge but still insufficiently explored energy resources. „On West, in NATO, the topic of Arctic is considered very seriously. Ice melting is opening a fight for new sea routes” (NATO, 2016). Also, engagement in certain countries and areas (appointment of Special Representative to NATO Secretary General for Central Asia and Caucasus, from 2008 and earlier – Special Representative of the EU, from 2003) places energy in the center of attention, again. „On the post-Soviet chess fields, today – great energy games are played”<sup>7</sup>. The actuality of security is constantly being confirmed and also the need of diversification of energy routes and sources of supply. „Euro-Atlantic Alliance is trying not to keep all the eggs in one basket and to place them into several secure corridors”<sup>8</sup>.

Figure 4: NATO and EU membership compared



Source: (Eurasian Geopolitics, 2018)

(This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo declaration of independence)

#### 4. Conclusion:

In European and Atlantic discussions, among many of them, a central place tends to be reserved for the topic of energy security and consequently - of the energy security of the EU and the rest of Europe (not all European states are EU member states or NATO members, or none of them. But, they are still important as candidate countries, potential candidates or, in the case of NATO - partners). EU energy security is facing a serious challenges. Nonetheless, the Atlantic position is facing new realities in the field of global energy, the competitors-consumers embodied in two large energy-hungry Asian tigers – China and India. Energy independence is impossible, and energy interdependence is the first condition for the survival of the energy sector of any state or group of countries. Positive solutions of the EU towards strengthening its own energy security are focused on upcoming years as years of old-new energy partnerships. With a series of details that are in the function of producing direct or indirect

consequences for European energy (in)dependence and hence - security, of course – the stake is great (the EU's wishes coincide with NATO's ones).

Answering a question about NATO's role in energy security, it is noticed that first and foremost – it is, for sure, one of strategic goals of Alliance. The preservation of current and future oil and natural gas pipelines that lead to Europe as well as securing of (floating) LNG terminals from terrorism that represents a huge challenge for energy sector, will be a subject of current and future concern. Natural gas as a fuel of the future has also determined the expansion of NATO or has influenced it, as it will determine future geopolitical flows. Energy NATO would be one of the EU energy security pivots in the future and, in perspective, as time passes, it is about to develop more measures of preventing of current dynamics of EU addiction on imports of Russian natural gas. As a common denominator of the given influence, in this sense, it separates and crystallizes the necessity of unique combination of political and military features that enables NATO to treat energy security appropriately. It promises more than just a domain of infrastructure protection, bringing together North America and Europe, including European nations that are not members of the EU.

So, as much as it was written on a given topic, any additional research is more than helpful and welcome. The given phenomenon, which is socially and politically significant (energy security), is concentrated here (EU energy security) and analyzed through the prism of the influence of the NATO current potentials, will be a step towards completing not so extensive literature, both - foreign and domestic.

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## **RENEWABLE SOURCES IN THE FUNCTION OF ENERGY SECURITY IN THE REPUBLIC OF SERBIA**

**Abstract:** The rapid use of renewable energy sources and energy efficiency results in significant energy security, mitigation of climate change and are one of the necessary components of possible ways to achieve energy security and sustainable development. The paper is based on the presentation of the importance of renewable energy sources in order to achieve the energy security of the Republic of Serbia. The Republic of Serbia has considerable energy potential in renewable energy sources, but it has not been sufficiently utilized, or is not used at all in terms of wind or solar energy. The use of energy from renewable sources is still in its infancy, and the biggest challenge is the transition to cleaner technologies while achieving economic viability and energy security of the Republic of Serbia which is essential for the economic stability of a state.

### **1. Introduction**

The concept of sustainable development implies the production of a model that would satisfy social economic necessities of people in a high quality way, but at the same time it would decrease the jeopardizing and harming impacts on environment, natural resources and human beings. For the last few years, the importance of the renewable sources concept has been increased, since the usage of these sources instigates and results into the significant energy security of a country, mitigating the climate changes and is one of the most important components in achieving the appropriate model of sustainable development.

The issues of sustainable development of the environment, but most certainly of the energy security as well, are very important issues for the entire social economic system, while renewable resources are directly associated with them and are excellent alternative for dealing with these topics. The environmental pollution and the greenhouse effect are caused by the emission of pollutant gases that last few decades have become more difficult to control and suppress. Today, all member states of the European Union (hereinafter the EU) are facing serious problems and challenges regarding the energy sustainability, energy security, competition and dependence on the import of the other countries, but simultaneously seeking the fastest way for securing their own inner market.

The energy is very important factor of sustainable development and economic growth of the region, but it is mainly the significant element for the survival on this planet (Milanovic & Lekic, November 2017). No country can expect to have the permanent or sustainable economic development without a liable attitude towards the energy. Renewable energy, together with energy efficiency, are extremely important factors in establishing the sustainable development, but also the energy security of a country. This is the reason to

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work harder and better on including the renewable energy more, considering the fact that is directly correlated with the aforementioned energy security of a state.

This paper explains the concept of renewable energy and energy security, current state in the Republic of Serbia, as well the overall significance and the connection between these two concepts, which contribute jointly to sustainable development of a country, but also of the global community.

## **2. Concepts of Renewable energy and Energy security**

Renewable energy are non-fossil energy sources, such as: watercourses, biomass, wind, sun, biogas, gas form landfill sites and sewage treatment plants and sources of geothermal energy (Vlada RS, 2014).

Renewable energy represents the limitless sources of energy coming out of nature, renewing themselves in a certain time period, completely or partially. These sources are exploited with a aim to produce electrical, heat and mechanical energy. Their significantly sustainable trait is that, regarding the decreased and reduced emission of carbon dioxide during the energy production, they are harmless for the environment (Energetski portal, 2018).

Since renewable energy is made out of natural sources, therefore the technologies of these sources include the energy proceeding from them: sun light, wind power, hydropower, energy of biomass and biofuels. Almost all renewable energy originates from the Sun. (Wikipedia, 2018)

The natural and technical potential of the renewable energy is sufficient to fulfill the energy requirements of the world population, having the natural daily potential 20000 times bigger than the consumption of nuclear and fossil fuels. In comparison to other technologies of electrical energy production, the industries based on renewable energy have recorded the highest economy growth in the world over the last few years.

Energy security is the association between national security and the availability of natural resources for energy consumption. Access to (relatively) cheap energy has become essential to the functioning of modern economies. However, the uneven distribution of energy supplies among countries has led to significant vulnerabilities. (Wikipedia, 2018)

In general, the energy security is most frequently designated as “availability of energy products”, while as the term “availability” refers to the continuity, stability of prices, political stability of a state from which the energy products are imported.

During the last decade, the issue of energy security has become the object of interest in the Republic of Serbia. It has been emphasized that energy security represents oil and gas supply that is stable, liable and with acceptable prices, described with three key words: accessibility, attainability and adequacy. Also, it should be clarified that the concept energy security is seen only through the customer's eyes. However, that shouldn't be so, since the energy security, just like everything in life, is “a two-way street”, where manufacturers also play an important role and have with big interests, perceiving the energy security from the different perspective than the consumers that is as stable and predictable demand making them appreciate big investments in the energy research, production and transport. (Zaric, 2018)

## **3. Renewable energy in the Republic of Serbia**

The Republic of Serbia enters the group of countries of medium dependence, since the annual consumption of all energies is less than the production that makes 40 % out of total dependence.



Simultaneously, the level of economic growth should also be considered, since it still remains below the level required for rapid approach to developed countries, while the energy necessities are just getting bigger. The reason for this is that the energy price had been so low in the past that it had not even been counted as an important element within the economic analysis that is the part of energy products of a certain price has been unknown. Also, this had been the reason for not paying the sufficient attention neither to the architecture nor to the forms of building of the construction objects. Therefore, the isolation is often badly done; the space orientation is inadequate causing the energy usage for air conditioning of the space inappropriately big, which leads to great losses. Taking into account the usage of bad and old production technologies, with still low energy prices, it can be said that the energy balance of the country, in the long run, is economically unsustainable. When the price of energy reaches to commercially justifiable, that is the market level, the Serbian economy will not be compatible to other global market participants.

The times when Serbia, as part of the Republic of Yugoslavia, was the significant exporter of the final energy, are long gone. Nevertheless, the goal of Serbia's developing strategy should be to provide a high level of energy security for sustainable energy development by fully applying the measures of efficient energy consumption and using the renewable sources. They are the only left sources with relatively unused energy potential, such as the energy from small watercourses, biomass, geothermal, sun and wind energy, which, if smartly used, can serve for building the concept of decreasing the energy dependence of a country that tends to make a big leap towards the developed economies. Finally, the renewable sources are practically the only energy resource whose exploitation is considered to form a part of the global trend up until year 2030. (Vasiljevic, 2006)

Its necessary amount of the primary energy, 15,5 million tons of oil equivalent (Mtoe) per year, The Republic of Serbia procures from domestic production (approximately 65%) and from the import (approx. 35%).

Chart 1. (The Energy Development Strategy of the Republic of Serbia until 2025 with projections until 2030)

<b>Renewable source type</b>	<b>Available Potential Used Millions / Year)</b>	<b>Unused users are available. (millionth year)</b>	<b>Total available technical potential (Mtoe annually)</b>
<b>Biomass</b>	1,054	2,351	3,405
<b>Agricultural</b>	0,033	1,637	1,67
<b>Wooden (forestry)</b>	1,021	0,509	1,53
<b>Biodegradable municipal waste</b>	0	0,205	0,205

<b>Hydro energy</b>	0,909	0,770	1,679
<b>Wind energy</b>	0	0,103	0,103
<b>Solar energy</b>	0	0,240	0,240
<b>Geothermal energy</b>	0,05	0,175	0,180
<b>Biodegradable waste</b>	0	0,043	0,043
<b>RES TOTAL</b>	1,968	3,682	5,65

When it comes to the Republic of Serbia and its sector of renewable energy, it can be said that, apart from the hydro energy, it is in the early phase of development. According to the data from the chart above, the total technically disposable potential of renewable energy in the Republic of Serbia is estimated to be 5,65 million tons of oil equivalent (Mtoe) per year. Serbia has used 33% out of it (0,9 Mtoe of used hydro potential and 1,06 Mtoe of used biomass potential). The rest of unused, and yet disposable amount of 3,682 Mtoe consists of 65% of biomass potential, and 30% (909 thousand tons of oil equivalent) of disposable hydro potential, out of the total renewable energy potential.

The amount of disuse can be seen directly from the chart, but this can also be viewed as the opportunity for the Republic of Serbia to take part in renewable energy efforts.

There are several reasons why the development of renewable energy is significant. First of all, the use of renewable energy directly affects the decrease of greenhouse gases emissions that lead to the global warming. Also, the renewable energy increases the energy sustainability of a country, decreasing the dependence on the energy products and electrical energy imports.

In year 2020, the investing in the energy sector, including the increased share of renewable energy combined with measures of energy efficiency, could decrease the greenhouse gases emissions for 15 %. In alignment to these plans, the energy efficiency has been identified as the most cost-effective measure, considering the very low, energy efficiency of residential, industrial and public objects in the Republic of Serbia. On the other hand, the investment in renewable energy is a priority for the decrease of energy dependence and environmental protection. Since the technology of renewable energy usage requires great funds, the majority of states has implemented the system of encouraging measures to use them. Therefore, the renewable energy is expected to become very soon economically competitive to the conventional energy sources. Due to the technological innovations, the technologies of renewable energy usage are rapidly becoming more efficient, cost-effective and attainable.

The use of renewable energy is the basic element in fighting against the climate changes, with significant role in decreasing the dependence from non/renewable energy sources. Its main goals are:

- More efficient use of energy plants
- Modernisation of the technology
- Utilization of domestic energy resources
- Security of supplying the consumes with energy
- Greater competitiveness of the economy on the international market
- Decrease of greenhouse gases emissions (CO<sub>2</sub>)

Decreasing the energy consumption for 20%, while on the other hand, increasing the participation of renewable energy also for 20% until year 2020, is the goal that the EU has included into its *Energy Efficiency Action Plan*. (Мишев Г., Миладиновић Д. & Калосеровић М. 2017) For achieving this goal, the Plan has established a series of short and long term measures, emphasizing the necessity of special efforts regarding the use of renewable energy. According to the energy balance for 2009, the renewable energy sources (RES) took part of 21,2% in Serbia's gross final consumption (GFC). Also, according to the EUROSTAT Report for year 2015, named *The Renewable Energy in the EU*, Montenegro is the regional leader with 43,1% of energy used out of the renewable sources of the total energy consumption, followed by Albania (34,9%), Croatia (29%), Romania (24,8%), Serbia (23,2%), Slovenia (22%), Macedonia (19,9%), Bulgaria (18,2%), Greece (15,4%) and finally Cyprus (9,4%). (Мишев Г., Милановић Т. & Калосеровић М., 2017)

#### 4. Conclusion

Speaking of the environment improvement, we believe that it is something that should be the national interest for a country. This especially refers to reducing emissions of harmful gases, but nevertheless avoiding putting the issues of competitiveness, economy development and quality of life of the citizens at risk.

In this context, the Republic of Serbia can use renewable energy sources to compensate the lack of the primary energy, since the production of estimated resources can utterly cover 30% of the import dependance and hence, certainly with measures of energy efficiency, become the energy independent country. Therefore, that would be the first step in development of utilization of renewable energy sources. Nevertheless, considering the increased use of coal reserves, the use of RES should be improved in the future period, with special emphasis on biomass and geothermal energy, which can be seen in this paper.

Securing the alternative energy sources, especially of the heat energy, in amidst of gas crisis in the entire Europe, is something inevitable for the Republic of Serbia and it is the priority for the future period.

Anyhow, the Republic of Serbia has its special interest in the energy security, being that it is of essential importance for its economic and political stability. Based on the current production, coal reserves have been estimated for the following 50, while gas and oil reserves for the following 20 years. However, the total energy reserves in Serbia have been gradually reducing which has brought up the issue of the state's capacity to resist the turbulencies on the energy market.

Until 2020, the Republic of Serbia is bound to increase its participation in RSE up to 27%, which would, taking into account the estimated technical potential of approximately 5,6 Mtoe per year, significantly contribute to reduction of fossil fuels and to achievement of energy independence and sustainability in economic terms, as well as to continuous growth and sustainable development.

With all aforementioned reasons, the direct correlation between the sources of renewable energy and tendency to provide energy security of a country is very distinctive. The Republic of Serbia contains a considerable amount of unused potential and it is necessary to consider this fact as soon as possible and to use it in the right way, being that it is the only way to achieve the significant energy security and economic profit.

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## FINANCIAL INCLUSION AS A NEW CHALLENGE TO ANTI-MONEY LAUNDERING AND TERRORIST FINANCING SYSTEM<sup>2</sup>

**Abstract:** Financial inclusion is a term that is primarily applied to individuals, households, and microenterprises in areas with a high degree of poverty who use informal financial services rather than formal and protected financial systems. In order to solve the issue of financial exclusion, such user profiles are offered a wide spectrum of financial products and services unavailable until that point, such as carrying out transactions, savings, lending and insurance services, with a view to reducing poverty and boosting prosperity. Apart from boosting quality of economic and social living conditions, an obvious advantage of financial inclusion is its effect on the risk reduction of uncontrolled money flows which brings it in correlation with anti-money laundering and terrorist financing goals. That is why it is important to discuss the issue of efficient identifying, assessing, understanding and mitigating risks of money laundering and terrorist financing, depending on customers' profile, type of products, services, and conducted transactions or delivery channels used.

When using methods of classification and description, the work analyses issues of financial exclusion, financial inclusion modalities, connection to anti-money laundering measures in a scope of due diligence and risk based approach, as well as importance of national risk assessment to determine the level and nature of the risk environment and other risk indicators.

**Key words:** financial inclusion, money laundering, bank, due diligence, risk, assessment

### 1. Foreword

In the 1980s, Grameen Bank pioneered the innovation of microcredit for the poor in Bangladesh. The business model for the first generation of microcredit depended on donor funding, indicating that microcredit was not a commercially sustainable venture. By the 1990s, microcredit became a favoured policy instrument in the fight against poverty (Culpaper, 2012). Following the precedent of the Consultative Group for International Agricultural Research (CGIAR), a core group of donors came together in 1995 to create the Consultative Group to Assist the Poor (CGAP).

Nowadays, it is a global partnership of more than 30 leading organizations with focus to assist the poor through the provision of microfinance by spurring innovations and advancing knowledge and solutions that promote responsible, sustainable, inclusive financial markets. Much of the G20's efforts regarding financial inclusion have sprouted from the work of CGAP. Actually, CGAP is one of the three key implementing agencies for the G20's initiative on enhancing financial inclusion which include a set of nine principles: leadership, diversity, innovation, protection, environment, cooperation, knowledge, proportionality and framework. The nine principles articulate a role for government that consists primarily of creating an enabling policy environment for market-based actors.

Despite the fact that a definition of financial inclusion can vary depending on the national context and on the stakeholders involved from "banking the unbanked" to "branchless banking", it certainly involves providing access to an adequate range of safe, convenient and affordable financial services to disadvantaged and other vulnerable groups, and to anyone who have been underserved or excluded

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from the formal financial sector. (FATF, APG & World Bank, 2013). That financial inclusion is much more than “banking the unbanked” is confirmed by its definition as “a state which all people who can use them have access to a suite of quality financial services, provided at affordable prices, in a convenient manner, and with dignity for the clients (ACCION, 2103).”

With regard to the comprehensive definition of financial inclusion and different perspectives of starting points for basic target-setting approach, the aim of improving financial inclusion strategy should include initiative and interference of public sector, financial and non-financial institutions, and other stakeholders providing permanent focus to financial stability, integrity, market conduct and financial capability (Pearce & Ruiz Ortega, 2012).

## 2. The basics of financial inclusion

Even though the definition of financial inclusion is flexible, it is possible to conclude that it is primarily focused on adults to which aims to ensure effective access to financial products and services that involves convenient and responsible service delivery, at a cost affordable to the customer and sustainable for the provider, expecting that financially excluded customers use formal financial services rather than existing informal options (GPFI & CGAP, 2011).

With regard to its content, the diversity of its flexibility is visible in definitions primarily aimed at vulnerable groups of individuals. By covering different elements connected to the availability of financial services to individuals, but also raising the quality of social and economic conditions, financial inclusion issues can be seen from the perspective of the individual as an object of action. According that criteria financial inclusion has been defined by different authors as: “A state in which all working age adults have effective access to credit, savings, payments and insurance from formal service providers.” (GPFI & CGAP, 2011); “Permanent access of adults to a range of financial products and services (i) offered through formal and sustainable financial institutions, governed by appropriate regulation, (ii) diverse, affordable and tailored to the needs of the population, (iii) used by the population in order to contribute to the improvement of its socio-economic life.” (Burundi, 2014); “Financial inclusion is achieved when adults have easy access to a broad range of formal financial services that meet their needs and are provided at affordable cost.” (Nigeria, 2012).

The other group of definitions is more aimed at financial services as the object of action such as: “The access to and usage of a range of quality, timely, convenient and informed financial services at affordable prices. These services are under appropriate regulation that guarantee consumer protection and promote financial education to improve financial capabilities and rational decision-making by all segments of the population.” (Paraguay, 2014). Simply put, financial inclusion may be interpreted as having access to and using the type of financial services that met the user's needs... (Fathallah & Randall, 2015). “Financial inclusion is a state in which all people who can use them have access to a full suite of quality financial services, provided at affordable prices, in a convenient manner, and with dignity for the clients (Gardeva & Rhyne, 2011).” Financial inclusion refers to universal access by households and enterprises to an appropriate range of financial services at a reasonable cost provided by a range of responsible and sustainable financial institutions.” (CGAP & IFC, 2013).

It is doubtless that financial inclusion is an ongoing and dynamic process which is related to the threat to financial integrity and international security, as well as social, political and financial stability. Furthermore, the processes of increasing financial inclusion will change the nature of risks triggered by characteristics of currently financially excluded customers, nature of the products, services, and providers capable of reaching them, and especially the innovative approaches needed to accomplish significant increases in financial inclusion. The third factor is current nature and level of financial exclusion in the country in question and the capacity of policy makers, regulations, and supervisors to implement recent financial inclusion standards (GPFI & CGAP, 2011).

### 3. Diversity of access to causes and objectives of financial exclusion

As previously mentioned, the object of financial inclusion actions refers to vulnerable population groups, most often in developing countries, who do not have access to the financial sector or their availability is limited due to financial or other reasons, which is why they are often disadvantaged even in the developed countries. At the macroeconomic level, financial inclusion is correlated with economic growth and development which implies need for strengthening financial systems, and allocating resources more efficiently. Financial inclusion represents a way for their involvement in regular financial business in a legal and transparent way.

The fact that 2.5 billion people are excluded from financial services, which is 50% of the world's adult population, serves as proof of numerous potential users. In emerging markets almost three in four adults do not appropriate approach to formal financial institution in terms of having a savings or credit account (GPFI & CGAP, 2011). Since only 7 percent of all adults have accounts and use them actively, it can be concluded that this enormous disparity in usage suggests that the 2.5 billion figures is vastly over-optimistic. At the same time, it is emphasised that in the framework of the observed group, women are in a far worse position than men, nevertheless the size of the account ownership gap differs among regions, especially in the Middle East, North Africa and in South Asia (ACCION, 2103).

Except individuals, the problem of financial exclusion is related to 200 million formal and informal micro, small, and medium enterprises in developing economies with lack access to loans or lines of credit (CGAP & IFC, 2013). The same problem is evident with regard to the issue of terrorism, as it was found that terrorist groups are often connected to countries with low national income per capita, high children mortality and youth unemployment, with lack of political freedoms and partial democracy (Hutchings, 2004).

The first global and measurable set of commitments by developing and emerging country policy makers to unlock the economic and social potential of the 2.5 billion poorest people through greater financial inclusion is the Maya Declaration. It is focused on creating an enabling environment that increases access and lowers cost of financial services, integration consumer protection and empowerment, use data to inform policies and track results, and implementation a proportionate regulatory framework that balances financial inclusion, integrity and stability (AFI, 2012). However, it is in these developing countries that the financial health from the point of several different indicators needs to be viewed.

#### 3.1. The main obstacles for financial inclusion

Balance income and expenses is the first indicator which supposed success in shaping income and expenditure in order to meet daily needs and financial obligations. Build and maintain reserves is a second condition which imply steady saving and savings replenishment behaviour, and the magnitude and liquidity of current reserves, including „economic value“ in any form. Managing existing debts and having access to potential resources is another challenge in finding measure how manageable current formal and informal debt is, and what resources a person can call upon through formal and informal sources. Not less important is the way how well a person can leverage financial resources to weather and recover from an economic shock. In the end, it is crucial finding a way how to use an effective range of financial tools, design an affective plan and prioritize types of goals, as well as have a confidence in one's financial future (CFSI, 2017).

The problem of financial exclusion is more relevant regarding the fact that a large number of poor people in developing countries has established sophisticated financial behaviour, transacting through remittance systems outside the formal bank sector, saving and borrowing with an eye to the future and creating complex “financial portfolios” using mainly informal tools (Collins, 2009). The most frequently reason for not having an account is the lack of enough money to use one, which means that banks or accounts are too expensive or that another family member already has access to an account. The less common reasons are that banks are too far away, lack of proper documentation, lack of trust

in banks, and religious reasons (FATF, APG & The World Bank, 2013) financial vulnerability caused by personal circumstances, low levels of financial literacy, reduced social and technological inclusion, as well as cultural, psychological linguistic or educational barriers (Atkinson & Messy 2013).

Officially recorded flows to developing countries are estimated to have reached USD 372 billion in 2011, and increase of 12.1 percent over 2010. The growth is expected to continue at a rate of 7-8 percent annually. However, some experts suggest that if informal and underreported flows were included, the total amount of migrant remittances would be considerably higher, possibly up to two to three times higher. For these reasons it is important to set basic goals of financial inclusion which appear in three dimensions: access and usage of financial service as well as quality of the products and the service delivery (GPFI, 2016). For the efficient look at causes and goals of financial inclusion, it is important to make the correlation with financial stability, financial integrity, and financial consumer protection. It means that financial inclusion targets should be set in a manner that is viable. Viable refers to providing valuable financial solutions that are affordable for a consumer and profitable for a provider. Also, it has to be safe what refers to ensuring that financial services do not have adverse impact on consumer protection and financial stability.

#### **4. Different modalities and structure of financial inclusion**

As a way to find appropriate solution for financial exclusion, several target-setting approaches is imposing: fully country-designed approach (unique starting points and develops targets based on each country's strategy), top-down modelling (setting a global target for all countries to achieve regardless of country-specific conditions), generalized path approach (based on the assumption that there is one path of country's journey toward full financial inclusion which is applicable to all countries, but each country follows the path from different position), and archetypes approach (small number of archetypes are defined based on different starting points for the level of financial inclusion, separately for individuals and for enterprises, where each archetype is designed to include a number of countries which share similar characteristics, as well as financial and economic development) (CGAP & IFC, 2013).

Regardless of the mentioned approaches, each country context varies, including in terms of data availability and diagnostics, institutional capacity to implement reforms, financial market structure, level of financial infrastructure, and political priorities. Such characteristics of each country will significantly influence the chosen direction of the action plan and approach to the analysed issues.

Cooperation is an important aspect in creating an institutional environment with clear lines of accountability which implies partnership across a variety of government, business, and social sector stakeholders. There are varieties of ways to enable cooperation, separately, or in combination with each other. In consultative model, coordinating body comprises of or is structured in the form of a task force or steering committee composed of representatives from different implementing agencies and other relevant actors from private and social sectors, including donors (implemented in Pakistan). Through mandate-based model, the coordination structure is tasked with ensuring that targets are met and that financial inclusion reforms are implemented by the relevant agencies (Russia applied). The partnership model assumes formal or informal relationships formed between the coordination structure and the implementing agencies (case of Brasil) (Fathallah & Douglas, 2013).

#### **5. Risk assessment as a touch point between financial inclusion and anti-money laundering measures**

The basics of risk based approach were stipulated in Directive 2005/60/EC, while Directive 2015/849 and FATF Recommendations establish risk based approach as pillar principles of anti-money laundering and terrorist financing strategy. Besides the fact that the risk of money laundering and terrorist financing is not the same in every case, a holistic type of risk-based approach is suggested. The scope, analyses and risk assessment are based on detecting the internal market areas that are at

greatest risk, the risks associated with each relevant sector, and the most widespread means used by criminals who laundering illicit proceeds.

According to mentioned, every state are taking appropriate measures to identify, assess, understand and mitigate risks of money laundering and terrorist financing. In another step, obliged entities should take appropriate measures to identify and assess the risks of money laundering and terrorist financing, taking into account risk factors including those relating to their customers, countries, geographic areas, products, services, transactions and delivery channels.

Given the volatility of variables that affect the reduction or increase of potential risks, access to prevention measures such as due diligence is bound to be different. Especially in cases of higher risk, obliged entities will apply enhanced customer due diligence measures to manage and mitigate those risks appropriately which are closely connected above mentioned to product, service, transaction or delivery channel risk as well as geographical risk factors. In spite of all the efforts to set up a framework for suspicious transactions and finding efficient ways of detecting them, it is an inevitable fact that the same treatment cannot be expected at the level of all countries.

## **6. Main measures and obstacles for financial exclusion suppression**

In order to harmonize the application of basic money laundering and terrorist financing prevention measures, back in 2008 the FATF prepared the Guidance on Capacity Building for Mutual Evaluations and Implementation of the FATF Standards within Low Capacity Countries (hereinafter LCC), providing support to LCCs in implementing the FATF standards in a manner reflecting their national institutional systems.

The implementation of FATF standards is a challenge for all countries, regardless of their level of economic development. Even though LCCs are generally characterised as low income countries, several structural characteristics that constrain their capacity to implement anti-money laundering and terrorist financing measures were established, such as: competing priorities for scarce government resources, severe lack of resources and skilled workforce to implement Government programmes, overall weakness in legal institutions, dominant informal sector and cash-based economy, poor documentation and data retention systems, as well as very small financial sector. In order to overcome the established obstacles, FATF has identified “core” Recommendations as priority areas for implementation comprising criminalisation of money laundering and terrorist financing, customer due diligence, record keeping, and suspicious transaction reporting.

A number of themes are relevant throughout the process of implementing the FATF standards, including the strategic planning, the mutual evaluation process and the post-evaluation implementation action plan. The more important assignment is to define the principle how to obtain co-operation and engagement – political commitment, leadership and interagency co-operation/co-ordination, private sector outreach/consultation, technical engagement with FATF style regional bodies, along with a type of prioritisation and planning as a risk assessment and implementation action plan (FATF, 2008). Based on the observed issue streams that financial exclusion risks arise when persons have to seek their financial services from informal providers in the cash economy. The risks include financial crimes committed by informal service providers, and threats to the integrity of formal financial services, as due diligence inquiries fail when money trails disappear in the cash economy (Shahin & El-Achkar, 2017).

## **7. The critical importance of FATF Recommendations**

Determining the reasons for financial exclusion arises that effective ways of financial inclusion imply a link to anti-money laundering and terrorist financing measures. From the “financial institution” definition the following can be derived: the FATF was strictly activity-focused rather than institutional

for many years, which is why financially excluded had not been marked until 2011 in FATF Recommendations. One of the basic documents on which FATF efforts to determine significance and, consequently, measures of correlation of financial inclusion and money laundering was based is a white paper entitled “Global Standard-Setting Bodies and Financial Inclusion for the Poor”.

Basically, it established the importance of identification and verifying the identity of financially excluded and the potential for anti-money laundering and terrorist financing compliance to increase the cost of delivering formal financial services to such client, reducing potential profits. That way, the cost may be transferred to customers, discouraging some of them from using formal financial system. Several FATF Recommendations (40 Recommendations on money laundering and 9 Special Recommendations on terrorist financing valid at the time) can be also highlighted as crucial.

The explanation of FATF Recommendation 5 (valid at that time) which refers to identifying and verifying warns that conservative or inflexible CDD compliance requirements at the country level can undermine financial inclusion initiatives. The same attitude can be applied to the then valid Recommendation 8 which appeals for special attention to threats that may arise from new technologies that might favour anonymity and from non-face-to-face relationships and transactions. Furthermore, Recommendations 10 and 13 about record keeping and reporting of suspicious transactions requirements can represent the obstacle for many agents that are otherwise well-positioned to advance financial inclusion using e-money and other branchless banking models. Finally, Special Recommendation VI referring to wire transfers and requires countries to ensure that financial institutions include accurate originator information on all funds transfers, including remittances, above threshold of USD/EUR 1,000. Failure to establish such a *de minimis* threshold in national regulation or overly strict verification requirements may limit the financial inclusion impact of remittances (GPFI & CGAP, 2012).

It is indisputable that financial inclusion is a multi-dimensional challenge, of which anti-money laundering and terrorist financing requirements are one important aspect among others. As far as one expects a positive effect of financial exclusion it represents a risk of money laundering and terrorist financing at the same time what can contribute to a more effective preventive regime. It is important to pose a question regarding correlation between financial inclusion and measures for prevention of money laundering and terrorist financing since preventive measures are primarily based on promoting formal financial systems and services. However, it is reasonable to expect a negative influence of prevention measures on financial inclusion if such measures have not been precisely determined and implemented.

Such a conclusion is logically imposed since it is an environment that, because of the insufficiently developed legislative background, is assessed as risky and therefore requires the application of additional risk assessment and due diligence measures. This is why the FATF insists on the development of risk assessment measures with regard to implementing risk identification and risk factor measures, analysis of their nature, source, and probability of their occurrence and consequences of identified risks, as well as risk factors and estimates regarding established risk-taking (FATF, 2013). This is where the true challenge finding the appropriate level of protection for a particular financial environment lies.

## 8. Vulnerability of flexible due diligence procedure

The novelty of revised FATF Recommendations (2003) and Directive 2005/60/EC encourages countries to apply a wide range of flexible due diligence procedures – enhanced measures for mitigate higher risks, and lower simplified measures for low risk clients. A review of countries' assessments results carried out between 2005 and 2011 shows that very few countries took full advantage of this flexibility (FATF, APG & The World Bank, 2013). Revised FATF Recommendations from 2012 establish the risk based approach which requires understanding, identifying and assessing the money laundering and terrorist financing risks for different market segments, intermediaries, and products as basic principles.



The manner of carrying out such an assessment is left to the decision of each country separately because of the specificity of the procedure and the inability to set universal limits and definitions of procedures. Risk contains different factors as a threat, vulnerability and consequence. The low risk is determined by the national or local context and the specific environment of the customer usually as a combination of several factors. In this regard, it is important to perform risk assessment for the newly banked and vulnerable groups which often conduct a limited number of basic, low value transactions. Although such transactions are most likely to be considered as low risk transactions and they are subject to simplified due diligence, such treatment must not become a rule. That category of clients represent a very heterogeneous category with different risk profile in different jurisdictions why they cannot be classified as lower risk clients particular on that basis. Finally, it is still necessary to conduct ongoing monitoring of the business relationship (Esoimeme, 21015).

To effective implementation of risk based approach can contribute even national risk assessment to determine the level and nature of the risk environment as well as other risk indicators, and integrate this data in to their own risk profiling. However, there are two possibilities where countries may determine not to apply FATF Recommendations referring to risk assessment: in a situation of low money laundering and terrorist financing risk, in strictly limited and justified circumstances, in relation to a particular type of financial institution or activity, or DNFBP. The second possibility is a situation when a financial activity is carried out by a natural or legal person on an occasional or very limited basis (FATF, 2017). The risk assessment has to take a holistic approach and to consider several elements, including primarily the inherent risks of the products, but also the profile of the low income, unserved and underserved people targeted. The fact that some client belongs to the category of low income individuals cannot mean that has to be classified as a low risk customer.

The mentioned level of risk may depend of the digital nature of a product or service concerned, including products involving new technologies, or with the distribution channel used. With regards to products and services provided through new technologies and services, including online banking, the risk assessment will have to consider factors such as the non-face-to-face relationships, the geographical reach, the methods of funding and the access to cash as well as the possible segmentation of services between several parties for the execution of payments (FATF, Nov 2017).

Digital financial inclusion refers to the use of digital financial services to advance financial inclusion. It starts with a transactional platform that combines the functionality of a payment instrument with that of a value-storage account and has the potential to be accessed by customers through potentially any retail establishment. Via such platforms, a rapidly widening array of financial services, specifically targeting excluded and underserved market segments, are being offered, such as savings, credit, insurance, even investment products (GPFI, 2017).

## 9. Conclusion

The scope of financial inclusion refers to numerous individuals, households and microenterprises in developing countries which still lack the benefits of using financial system products and services. The development of technology and electronic payment make financial inclusion even more necessary, which also has an effect on the increase of a country's economic productivity. By enabling the use of a financial systems, the vulnerable population is provided protection, not only from possible fraud, financial misusing and exploitation, but these transactions also become vital in the implementation of the anti-money laundering and terrorist financing policy. Also, financial integrity challenges have a broader reach, from efficient application risk assessment and appropriate due diligence magnitude, depending on specificity and diversity of a product or service concerned, as well as new technologies and distribution channel used.

Although it may be concluded that the measures of financial inclusion are counteracted by the prevention of money laundering and terrorist financing, the more accurate conclusion would be to have the same amount of touch points as the points of differentiation. By looking at the subject matter from the financial inclusion point of view, measures to prevent money laundering require the implementation of risk assessment measures and client due diligence, which may adversely affect

access to financial services. Although there is a unquestionable need to apply risk assessment measures at the theoretical level, due to obstacles such as low economic development of these countries, the lack of a legislative framework, complexity of proceedings or high costs of application in practice, their use in the banking sector is so metimes greatly impeded. With regard to these difficulties, failure to implement that kind of measures could arise non-cooperation, resulting in a new sequence of negative phenomena and the need for additional prevention and repression measures aimed at cancelling the established negative status.

Based on the above, financial inclusion measures may not impede financial integrity and financial stability. They should be mutually complementing, while also focusing on financial consumer protection. Adequate application of anti-money laundering and terrorist financing measures contributes to the due diligence procedure, with the emphasis on implementing enhanced due diligence according to product or services of higher risk, new technologies payment instruments, and threats established by national risk assessments procedures, despite the fact that financial inclusion is primarily focused on low risk customers. The development of information technology and electronic payments will set new challenges with regard the necessity of financial inclusion, and consequently adoption of enhanced due diligence measures and its application.

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## POLITICAL AND ECONOMIC MOTIVES FOR JOINING EU: CASE STUDY OF CENTRAL EUROPEAN COUNTRIES

**Abstract:** The goal of this paper is to show political and economic motives of countries that want to join EU. In the ever changing environment states tend to join Regional economic integrations (REI) in order to make their economy stronger by attracting more foreign direct investments from economically stronger members of REI or from other countries which want to have access to enlarged market. The political motives for joining REI aren't to be neglected since countries in REI tend to get more security. We will try to explain these motives by using the example of the 7 new EU member states from Central and Eastern Europe which joined EU in 2004 namely: Poland, Czech Republic, Slovakia, Lithuania, Latvia, Estonia and Hungary. Each of them had their own specific reasons for joining EU but for all of these countries the main political motif for joining EU was to escape from the potential economic and political domination by Russia. Today some of these countries wish to have closer ties with Russia but because of their membership in EU they have greater leverage in economic relations with Russia and any other country outside the EU.

**Key words:** EU, politics, economy, security

### 1. Introduction

For the majority of Central European countries the membership in EU following dramatic events of 1989 was seen in the light of their departure from the Soviet "captivity" (Brezhnev doctrine was still valid until the party leader of the USSR Mikhail Gorbachov decided to abandon it in the face of the reforms in the Soviet "allied" countries") and rejoining the European family. O' Brennan states that " *For the Central and East European states emerging from the shadow of the Soviet monolith, the aspiration was clear: a 'Return to Europe' – the Europe from which, it was frequently asserted, these states had been forcibly separated for over four decades. They sought freedom, prosperity, and a secure place in the international community of nations, especially within European organizations. For the European Union, however, the aftermath to the peaceful revolutions would produce a period of intensive questioning: first, what was actually meant by 'European'; second, and more pragmatically, how should the Community respond to the CEE states' stated desire for membership of the club. For the first time, Article 237 of the Treaty of Rome, which simply stated that 'any European State can apply' for membership of the Community, began to be scrutinized*" (O'Brennan, 2006 :14).

### 2. Political and Economic explanations of inter-state Regionalism

The theoretical study of inter-state regionalism has many roots. As Breslin et al claim: *Early debates about regionalism emerged from three primary sources. The first was a political-normative question about the sustainability of the nation-state as a vehicle for effective and peaceful human governance. The second was the growth and gradual formalization of the social sciences, particularly in the United States. The*

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third, of course, was the appearance of regional integration schemes. Of these the most discussed emerged in the 1950s in western Europe with the European Coal and Steel Community, the abortive European Defense Community and the eventual European Economic Community” (Breslin et al., 2004: 2). The second period marked by the rise of the neo-functional theory of inter-state regionalism with regard to the transformation of the single market to the Economic union with changed political environment of the end of the cold war and the rapid rise of globalization. Nowadays New Regionalism deals with various issues like international and global variables like FDI, membership in REI affect the incentive structures of member states of regional organizations, it also deals with the problems of the clashes between the domestic policies and the policies at regional level and so on.

The economic study of regionalism is concentrated primarily in the field of neo-institutionalism and new political economy. Neo-institutionalism in economics is similar to one in political science. It assumes that regional institutions are created in order to solve market failures, solve coordination problems, and encourage economic cooperation (similar in Gilpin, 2001, p. 345). The common institutions encourage states to cooperate, and in a way manage this cooperation. On the other hand new political economy approach to regionalism takes into account not only economic factors leading to regionalism but also political ones. The emphasis here is on interest groups and the distributive outcomes of economic regionalism. New political economy assumes that from free trade area onwards regionalism has significant redistributive effects that are harmful to non-members, and produces winners and losers among firms from member countries. The classical work on economic consequences on the welfare of non-members of REI is the Jacob Viner's The customs union issue (1950). Viner pointed out that customs union would have trade-creating as well as trade-diverting effects. Prior to this analysis conventional economic analysis predicted that REI would be equally beneficial to both members state and non-member states since regionalism would have the same effect as global trade liberalization. After Viner's pioneering work the new economic growth and trade theories moved away from the trade creation and trade diversion effects of regionalism to studying the effects of economics of scale and other outcomes of regionalism such as spill-over effects in R & D. This could be beneficial to the firms within REI, since they could get competitive advantages over the firms outside the REI. This theory predicts that countries will be favorably disposed towards regionalism if their firms could benefit from economies of scale, R & D spill over etc. According to Gilpin *“economic theories do not provide satisfactory explanations of economic integration. This is because economic analysts generally assume that a political decision has been made to create a larger economic entity, and that economists need only to analyze the welfare consequences of that decision and concern themselves with just a few aspects of the process of economic integration”* (Gilpin, 2001: 346).

Now we turn to political theories and their explanation of REI. The first of these theories is federalist theory. The adherents of this theory want to build common institutions to which parties concerned will voluntarily surrender political autonomy and sovereign rights. This in itself is idealistic theory in IR. As Gilpin shrewdly points out “Historically, political integration of independent political entities has resulted from military conquest or dynastic union, and neither of these methods will necessarily lead to creation of integrated economy” (Gilpin, 2001: 349). Then there are functionalist and neo-functional theories. The most known proponent of neo-functional theory was Ernst Haas. Haas's theory argues that economic, technological and other development factors of the 20th century are driving nations of this planet to peaceful economic and political integration both at the global and regional level. Haas two books “The uniting of Europe” (1957) and “Beyond the Nation-state” (1964) provide valuable insights into the neo-functional theory. Haas believed that welfare state need rational management of the economy, which could only be provided by technocrats. Haas saw domestic interest groups as chief proponents of the regional economic integration that would be beneficial to their interests. As Haas explains: *“political integration is the process whereby political actors in several distinct natural settings are persuaded to shift their loyalties, expectations and political activities towards a new center, whose institutions possess or demand jurisdiction over the pre-existing national state”* (Haas in Schelhase, 2008: 28). Hurrell also argues that: *“supranational institutions were seen as the most effective means of solving common problems, beginning with technical and non-controversial issues, but ‘spilling over’ into the realm of high*



*politics and leading to a redefinition of group identity around the regional unit*" (Hurrell in Schellhase, 2008: 28-29).

Neo-institutionalism in political science is similar to one in economics. It emphasizes the value of institutions in solving economic and political problems, and it sees institutions as instruments in correcting market failures. The most famous representative of this school is Robert Keohane, whose book "After hegemony" (1984) is one of the most influential books on international regimes. Keohane emphasizes the need for international institutions, which would deal with market failures, reduce transaction costs and would encourage international cooperation (Keohane, 1984). International regime is set of rules that helps states solve mutual problems and allows them to cooperate on the known basis.

Inter-governmentalism is probably the most ambitious attempt by the political scientists to explain regionalism. According to this school, the driving force of regional economic integration is economy. Yet unlike the other political science approaches to regionalism, this approach stresses the importance of governmental actions in promotion of regionalism. They see national governments as champions of national economic interests, which bargain with other national governments over redistributive and institutional issues of regionalism. Andrew Moravcsik is the most prominent representative of this school. His main work is *The Choice for Europe* (1998). This work deals with the responses of the national governments to increasing interdependence of national economies, and emphasizes the role of international institutions in solving the problems generated by the economic interdependence of national economies. In Moravcsik's words: *"My central claim is that the broad lines of European integration since 1955 reflect three factors: patterns of commercial advantage, the relative bargaining power of important governments, and the incentives to enhance the credibility of interstate commitments. Most fundamental of these was commercial interest. European integration resulted from series of rational choices made by national leaders who consistently pursued economic interests-primarily the commercial interests of powerful economic producers and secondarily the macroeconomic preferences of ruling governmental coalitions-that evolved slowly in response to structural incentives in the global economy. When such interests converged, integration advanced"* (in Gilpin, 2001:354-355).

Realism emphasizes the importance of power, national political interests, and interstate rivalries in the regional economic integration process. There are several factors that realist approach to regionalism takes into account, which do limit the peaceful economic and political integration. For example, states are not so willing to compromise their national security for economic gains that could be attained in regional economic integration. Indeed according to many realists leading among whom is Robert Gilpin, political unification usually brings monetary and economic union, while the whole thing with the European integration process has managed to reverse the roles of political and economic unification and their influence on one another. According to Gilpin *"Economic regionalism has spread because nation-states want the absolute benefits of a global economy at the same time that they seek an increase their own relative gains and protect themselves against external threats to their economic welfare and national security"* and *"Furthermore, international economic competition necessitates large domestic markets that enable domestic firms to achieve economies of scale"* (Gilpin, 2001:357-358). In order to survive and prosper in an uncertain world, individual states and groups of states are adapting to evolving economic, technological, and political environment, as they have done many times in the past. In the 1990s, states have responded to intensely competitive and threatening globalization by forming or extending regional economic alliances or arrangements under the leadership of one or more major economic powers (Gilpin, 2001).

In accordance with the realism logic, principle actors in promoting (inter-state) regionalism are states themselves and some interest groups in industry and trade that find regionalism suitable for their interests. This could be called formal state regionalism since states sign treaties in order to enable REI to be made. Here the top down approach to regionalism is evident. The informal integration happens when transnational space is built by the market forces, without the intervention of the state and this is called regionalization. This also helps two different processes of regionalism and regionalization.

Regional trade agreements are in fact allowed under the rules of WTO and GATT: a) Article XXIV of the GATT lays down conditions for the establishment and operations of free trade agreements and customs unions covering trade in goods. b) The Enabling clause (formally, the 1979 Decisions on Differential and More Favorable Treatment, Reciprocity and Fuller Participation of Developing countries) permits regional agreements among developing countries regarding trade in goods. c) Article V of the General Agreement on Trade in Services (GATS) establishes conditions that permit liberalization of services among regional partners (in Ravenhill, 2008: 173; Fratianni, 2006:43). According to Pomfrett REIs: *"are, however, contrary to the spirit of the GATT, embodied in Article I, which requires any GATT signatory to treat all other signatories equally, and Article XXIV contains stringent conditions, which have seldom, if ever, been fully met in practice. There is also a paradox between the political economy forces Regional Trade Agreements 43 encouraging politicians to embark on preferential trade policies and the economic forces working in favour of global adherence to the non-discrimination principle. Despite dozens of plans for RTAs many failed to come to fruition, and among those RTAs that did begin to operate many failed to survive long or to exercise a significant influence on trade flows"* (Pomfrett in Fratianni, 2006, : 43-44).

### 3. Political motivations for entering regional economic integrations (REI)

There are couple of political reasons why states wish to join regional economic integrations:

1). Economic co-operation and confidence building. It is simply using the economic means to improve political relations between different countries. Since business interest are seen as inferior (usually they refer to individuals, or only group of people) to the political interests (which refer to the fate of nations) they are neutral means to establish more co-operation and understanding between different states, especially after the wars. European Coal and Steel community established in 1951 was created to improve economic and political relations primarily between France and West Germany, and secondary between West Germany and the Benelux countries. It is also no wonder that among first means in normalization of relations between Croatia and Serbia there was an organized visit of Croatian businesspersons to Belgrade in 2000 to find out, there is a possibility of cooperation between two nations in economy. What followed was ever increasing investment by Croatian firms in Serbia, and the raise in trade between the two countries. The other example of this motives for entering this kind of regional association can be seen in the case of ASEAN, which was founded in 1967 and which served as a panel for non-communist South East Asian countries in order to prevent wars between the South East Asian countries and in order to coordinate their fight against the rising power of the communism in the region. When in 1998 ASEAN added Vietnam and Cambodia to its ranks, the vision of its founding fathers of peaceful coexistence was realized because these countries were or still are communist and have been at war with other SEA countries.

2). New security reasons. The developed countries of Western Europe (EU) and the North America (NAFTA) often decided to engage their poorer eastern and southern neighbors in the regional economic integrations in order to neutralize the security threats from their less developed regional partners. These threats include drug smuggling, illegal migration, and criminal activity of all sorts including the trafficking of people etc., not to mention the threat from terrorism. Regional integration can tackle these problems directly, as in the EU, where national police and secret services are obligated to cooperate on number of issues, or indirectly by providing economic development and thus removing the conditions that are perceived to foster security threats.

3). Regionalism as a bargaining tool. Many of the regional economic arrangements especially during the period from 1950-1970 were motivated by the desire of the member states to strengthen their bargaining position vis a vis multinational corporations and other trading partners. The inspiration for this kind of REI came from the works of economist Raul Prebisch, who argued that in order to develop; developing countries need to form regional economic arrangements in order to gain from the economics of scale, because few of them had a sufficiently large home market that was needed to launch successful

industrialization. This could also lead to the stronger position vis a vis multinational corporations, which would be faced with the pooled sovereignty and economic might of the developing economies (Ravenhill, 2008).

4). Regionalism could also be used as a means to lock in reforms. One of the most successful stories of regional economic integration has been the successful transition of the Central European economies from the planned economy of the soviet type to more or less market economies (Asslund, 2007; Gilpin, 2001). Not to mention that this was preceded by the transition from the communist dictatorship to democracy. The prospect of EU membership provided necessary stimulus for the Central European countries to better manage the economic and political transitions, while in the former USSR countries, minus the Baltic states, a peculiar sort of authoritarian capitalistic regimes sprang up, more alike to Asian dictatorships of the 1960s than the modern democratic societies.

5). REI could be used to play the domestic political constituencies. Lowering of the tariff protection and the abolishment of the non-tariff forms of economic protectionism, can be more easily sold out to the domestic constituencies if it is seen that they were not unilateral, but rather that the regional partners have done the same thing. Unilateralism is not a very welcome thing in economic policy and in policy of any kind in general. Sadly it is often the only option for smaller states, who can “save face” by joining the REI.

6). Easier implementation of agreements. REI with smaller number of members are more likely to be effective, and the members are more likely to watch each other keenly in order to see whether all the parties are implementing negotiated agreements. It is a well-known fact that EU functioned the best from the 1995-2004 when it had only 15 members with comparable per capita income, comparable political systems etc. The troubles for EU started from the enlargement in 2004 and 2007 when the number of EU countries reached 27. Not to mention that it was basically a Western club prior to 2004, with Greece being the odd man out.

7). One of the reasons for increased economic “federalization” of the World is the desire of the member states to become politically and militarily stronger, when they join their forces together. Brzezinski claims that there are four pillars of state's power in the international political order. They are economy, military power, culture, and technology (Brzezinski, 1997). Political power (and military power as prolonged hand of politics) still plays a dominant role in International Order, not least the international economic order. Certain politicians like De Gaulle thought that United Europe would be able to compete with the USA and USSR not only economically, but also that it could have a significant political and military power as well, and would be a subject and not an object of international politics (Gilpin, 2000). Culture plays an important but sadly neglected reason for the regional economic integration. EU could claim that it was in fact a union of Western Christian countries that share the same culture with four odd men out members like Romania, Bulgaria, Greece and Cyprus that are Orthodox countries. One of the reasons for the willingness of Central and Eastern European countries was their desire to show that they were culturally different from their former Soviet overlords, and that their culture was primarily the culture of *Mittle Europa* and not some kind Euro-Asian culture that is Russian. When Lithuanian MP was asked to define what is Europe he frankly said: “*Europe is not... Russia*” (in Heilleiner and Pickel: 35). The same could be said about every other state in Central and Eastern Europe and we could draw three conclusions about the motifs for these countries to join EU. The first one was the view that their nation states were there primarily to serve the interest of their respective nations, and in the globalized world without strong allies they would be unable to do that and would sooner or later fall under the Russian influence. The second reason was the political and economic reasoning of their respective national elites that further economic dependence on Russia would threaten their independence and that closer integration with the economies of Western Europe was needed to counter this.

#### 4. Economic motivations for choosing REI

Now we will give basic economic reasons, why states choose to join REI.

1. Protection of the industries that would not survive the global competition. This is the case where REI allow for the negative industrial policies to be implemented for some time and thus help the economic sectors that are coping with the loss of global competitiveness. These sectors are either excluded from the regional free trade deal for some time, or the government's subventions to them have been allowed to continue for some in the future. In a way it can be argued that a government, which wishes to pursue the liberal trade policy, will enter REI and thus expose the protectionist elements of the domestic economy to the limited foreign competition.

2. Regionalism can also be used as a means for deeper integration between countries. We argue that a lot of the treaties that started on purely trade bases turned into the deeper economic cooperation that went beyond removal of trade barriers. Balassa used the term 'economic integration' to refer to the creation of formal co-operation between states and the progressive movement towards a free trade area, a customs union, a common market, monetary union and finally total economic integration (Breslin et al., 2004, 13). For example EU regulates environment now, competition policies, anti-trust laws, and it started as a normal trade agreement (though cartelistic in its nature).

3. Large markets and increased foreign investments. These are the two main economic reasons for countries to join REA. If a country has a successful industry it will want to expand its market, and thus allow it to reap more benefits from the economies of scale (this is especially true of the industries in the small countries). The other reason is the attraction of FDI. The same pattern can be observed in the Central European countries, after they applied and then gained the EU membership. There is also a possibility that governments will try and provide a good "economic" environment in order to try and establish their economies as regional hubs, such as regional companies headquarters. This is well illustrated by the efforts of governments of Central European countries that were basically competing with each other in order to attract the best companies to their territory.

4. It is commonly seen that effects of economic growths and crisis will be shared among the members of REI. It means that if one member of REI experiences good economic growth it does not have to be a zero-sum game for the other member of REA since they could potentially benefit from the let's say rise in demand and the higher level of consumer spending. It remains to be seen how the most advanced REA namely the EU will respond to the economic crisis. Will it be a coordinated effort at the union level, or will it be individual effort at the level of member countries? As we have pointed out the so called socialization of growth within the REA, has to be followed by the socialization of the loss, so that individual countries have good reasons to join REI.

#### 5. Central and Eastern European countries motifs for joining EU

Some of the political and economic goals of membership of EU for the countries of Central and Eastern Europe were: a). Return to the Western cultural and political space to which these countries belonged for majority of their history b). Locking in political and economic reforms which were needed in order for transformation of these societies to succeed c). for some countries the possibility to attract FDI, since the loans for governments were no longer an option in the 1990s. d). for all of the countries building the trade links with the developed countries in Western Europe, market of which was quite lucrative for some of their companies. These links were needed to substitute for the loss of trade links with the former USSR. e). Defensive reasons. It was thought that by emphasizing economic relations with Western countries their goodwill and support would be gained for the CEE countries in relations with Russia and with each other (Lucas, 2008; Jacoby, 2004). f). The standard of living in the EEC and western Europe obviously played

the most important attraction for the citizens of CEE countries for their countries to join EEC/EU. Simply having better standard of living and being able to consume more goods was the most important reason for the support joining the EU enjoyed in CEE countries. To put it bluntly, after consumption needs and wants were realized the ideas of human rights, democracy etc. played the second most important part in the thinking of the average CEE citizen.

Membership in NATO on the other hand was the logical expression of the will of these countries to escape the Russian political, economic and military sphere of influence. NATO membership provided these countries with defense from potential Russian threats, but also put many obligations on them from restructuring their military potential in order for it to be compatible with NATO standards (purchasing western equipment), and the participation of these countries in NATO sponsored missions on Kosovo and in Afghanistan.

## **6. Conclusion: Central and Eastern European countries and their membership in EU-a success story or?**

The membership in EU from the economic standpoint was an unprecedented success story for these countries since their GDP and standard of living increased substantially (for data on this see <http://ec.europa.eu/eurostat>). Their national security was also strengthened because of membership in EU and NATO. All of these countries used their membership in EU in order to strengthen their respective economies by using structural and cohesive EU funds, (Pilipović, 2011). These countries also used membership in EU as bargaining tool, in economic and political relations *vis-à-vis* countries outside of EU. During the enthusiasm in period after the accession of these countries to EU Hungarian political scientists Bohle and Greskovits argued that “*Left on their own, the CEE regimes would have perhaps ended up as even more divergent: the Baltic states more market-radical, politically and socially more exclusive, the Visegrad states less macroeconomically stable, and Slovenia more protectionist. However, through (and beyond) the *acquis communautaire* proper, the EU seems to have promoted a certain model of capitalism too. That model consists of four pillars, the Single Market, the EMU, the Lisbon Agendas, and, subordinated to the former, a social dimension, each of which priorities the very issue areas where the CEE regimes diverge*” (Bohle and Greskovits, 2007: 456). Unfortunately, this was not to be the case. When Viktor Orban won his second term as prime minister of Hungary in 2010, he started to have second thoughts on liberal values that are core values of EU. In his famous speech in 2014 he pointed, “*There is a race underway to find the method of community organization, the state, which is most capable of making a nation and a community internationally competitive.... [T]he most popular topic in thinking today is trying to understand how systems that are not Western, not liberal, not liberal democracies, and perhaps not even democracies, can nevertheless make their nations successful*” (<https://freedomhouse.org/report/modern-authoritarianism-illiberal-democracies>). With these similar populist governments in power in Czech Republic, Slovakia and Poland have moved away from the European liberal values. Poland also has problems with EU rules considering judiciary independence and often challenges EU on migration policies. Nonetheless, all of these countries are aware that they need membership in EU in order to foster economic growth by using EU funds and by attracting foreign direct investments and as a safeguard for their often-turbulent political and economic relationship with Russian Federation whose foreign policy is growing more assertive each year. Luckily, for EU these countries have many differences, which prevents them from forming a united interest bloc. Overall, these countries are not likely to jeopardize their membership in EU. Economic prosperity and security often comes at a price of reduced sovereignty, which is still preferable to the uncertainty of facing global economic and security threats on your own.



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## THE WORLD WAR ONE PEACE TREATIES AS THE SOURCE OF RIGHTS OR OBLIGATIONS FOR THE NON-PARTIES

**Abstract:** The peace treaties after the First World War reflected transformation from the old, Eurocentric World into a new one, yet to be built and protected by legal norms. The interests of most powerful states were adapted to new values, such as the right of independence and the system of collective security. Apart from the question of reparations, the Paris treaties protected victorious states' economic interests, usually employing the most-favoured-nation clause. Not all states were allowed to address specific topics at the Conference while some decided not to participate in the Paris proceedings. While having in mind the position of third states, the paper provides a legal analysis of the clauses aimed at preservation of international amity, security and peace between nations. The approach of victorious states to preventing a future war was based upon creation of supervision mechanism aimed at controlling the economic lives of defeated states. Since purely economic measures left much to be desired, the political ideas were consequently reflected in the League's peacekeeping mechanism, which envisioned its effects even upon the Paris Peace treaties non-signatory states, as well as non-member states of the future League of Nations.

**Keywords:** collective security, non-signatory states' rights, economic interests;

### 1. Introduction

The legal logic has always disliked creating contractual rights or obligations for non-parties, maintaining that a treaty can create rights and obligations only between its parties.<sup>2</sup> The problem regarding these particular rights and obligations arose quite early in legal history so the first intellectual concept can be found in the Roman private law, summarised in the well-known principle *pacta tertiis nec nocent nec prosunt*, which in turn influenced the process of civil law codification in the 19th century significantly.<sup>3</sup> The Roman law in the Middle Ages was considered to be a universal or supranational law that enabled interpersonal regulation, especially if the known rules of (mostly customary) law were inadequate. Not surprisingly, these rules gradually transfused in the realm of international public law or more precisely, they started to affect personal relations between European monarchs. While having in mind all the particularities of international public law in contrast to private law(s), one must not forget that until the 16th century there were no substantial differences in this regard.

The initial lack of consent was usually circumvented through the future validation of treaty clauses by that particular non-party, frequently referred to as the "third" (Andrassy *et al.*, 2012, p. 88). Degan (2011) states that every international treaty is "the source of particular international law and as such, only binds its parties according to the principle *pacta tertiis nec nocent nec prosunt*" (p. 149).<sup>4</sup> Obviously, this is also true in case of creating a right for the "third", but here the assumed acceptance of the third is sufficient since they benefit from it. Naturally, if the "third" later manifests their acceptance to this created right, they resemble a treaty party in this regard even though they were not able to participate in negotiations and express their views on the clause

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<sup>3</sup> More details regarding this process of customary law codification can be found in Vukas (1975) and Degan (2011).

<sup>4</sup> If such (e.g. customary) rule already exists and binds the "third", a treaty clause "creating" that right or obligation in reality expresses simply an intent of its formalisation. Consequently, such right or obligation exists notwithstanding corresponding treaty provision agreed by the "third".

content or its wording. On the other hand, if we entertain the thought that parties to a treaty can create (subjective) right and especially obligation for the “third” regardless of their will, we are undermining the notion of sovereignty as an element of their (international) legal personality.<sup>5</sup>

One could also argue when exactly treaty provisions create rights or obligations for non-parties to the treaty. Is it in the moment when treaty starts to produce effects for its parties or only when the “third” accepts such rights or obligations, contained in treaty provisions? When anticipated by treaty members or *ultima ratio* if not expressly banned by treaty, the “third” cannot for a retroactive effect in regard of their right or obligation instead of the moment of their acceptance of a certain right or obligation (Vukas, 1975, p. 31). Also, there is a question of responsibility of parties to a treaty if the non-party fails to fulfil its (or maybe “its”) contractual obligation. While these questions had been answered mostly in the 1980 Vienna Convention on the law of treaties, the starting intellectual point of their modern form can be traced to the World War One peace treaties. This is particularly true in regard of two areas which we are exploring in this paper: the creation of supervision mechanisms aimed at controlling the economic life of defeated states and the League of Nations’ system of collective security aimed at preserving peace.

## 2. Internationalisation of transport and commerce as a consequence of the Paris Peace Treaties

After unconditional surrender of Austria-Hungary in October 1918 followed by the truce between the Ottoman Empire and Entente, the German Empire was left to its fate. The awareness of imminent defeat, hunger and war weariness resulted in the abdication of Wilhelm II and the birth of the Weimar Republic.<sup>6</sup> The Paris peace conference started in January 1918 with the representatives of the 27 victorious countries while the representatives of the defeated powers were excluded from the conference proceedings. Not surprisingly, each of the defeated countries was in the end and without previous discussion shown the final draft of peace treaty that could be rejected in full or signed.<sup>7</sup> While these essentially similar peace treaties<sup>8</sup> crushed the defeated states’ dreams of international arms control, the right to self-determination (especially in the context of all-German unification) and „peace without victory“ based upon Wilsonian ideas, they did establish the system of collective security instead of the centuries-old balance of powers system.<sup>9</sup>

According to Clavin (2005), the peace treaties left the political life of defeated states (or their successor states, more precisely) in their own hands but also sought to subdue them economically. There is a general agreement that the non-flexibility of the Paris Peace treaties (principally the Versailles treaty with Germany) planted a seed of the new world war. Designated as the culprit for the beginning of the war, the Weimar Republic was held responsible for damages that resulted from its aggressive

<sup>5</sup> Eventually, the 1980 Vienna Convention on the law of treaties shed some light on this matter, providing that third state consent is presumed in a case of creating a subjective right for the state, while its consent must be beyond any doubt in a case of creating an obligation for her the state. See Articles 34 to 38 of the 1980 Vienna Convention on the law of treaties.

<sup>6</sup> According to Graebner and Bennett (2011, p. 35), president Wilson of the United States demanded Wilhelm’s abdication as a prerequisite for signing the peace treaty with Germany.

<sup>7</sup> The defeated powers were allowed to submit written remarks, although these notes were inessential to victorious powers.

<sup>8</sup> The 1919 Versailles peace treaty with Germany was a model for peace treaties that soon followed: with Austria (signed at Saint-Germain-en-Laye), Bulgaria (signed at Neuilly-sur-Seine), Hungary (signed at Trianon) and the Ottoman Empire (signed at Sèvres). The League of Nations Covenant was an integral part of each treaty.

<sup>9</sup> It should be emphasized that Wilsonian ideas regarding the right to self-determination and the system of collective security were actually reserved to political sphere. Indeed, Wilson (1918) famously demanded “the removal, so far as possible, of all economic barriers and the establishment of an equality of trade conditions among all the nations“, but American delegates in Paris played a key role in curtailing French efforts to include economic relations between nations under the competence of the League. McDougall (1979) provides more details.

behaviour (Marks, 1978). Consequently, it was charged with a vast sum of war reparations.<sup>10</sup> The Sèvres treaty with the Ottoman Empire was also particularly harsh since it aimed to control the economic life of the Empire significantly, mainly through the restructuring of the Imperial Bank in favour of victorious states.

Aside from the duty of war reparations, the supervision of economic life was aimed at preventing the development of economic capabilities of defeated states needed for starting and maintaining a future war. Steiger (2004) notes that these clauses are the proof of the transformation of nationally oriented economies into regional economies, which are the basis of the modern global economy. While these clauses in peace treaties more often than not directly advocated the victorious states' interests, one could notice the clauses devoted to the promotion of international transport through the territory of the defeated state. Also, impeding the right of a defeated state to regulate the transport and commerce on its territory autonomously represented a severe restriction to the state's sovereignty. This internationalisation of transport and commerce would also much benefit from the creation of subjective rights of those states who were not parties to Paris peace treaties. The part ten of the Versailles treaty ("Economic clauses") regulates various matters such as commercial relations, shipping and unfair competition.<sup>11</sup> The parts eleven and twelve are devoted to various questions regarding aerial navigation, ports, waterways and railways, so in effect, the freedom of international transit through the German territory is secured (including the territorial sea), regardless of the modes of transport.<sup>12</sup>

Article 264 of the Versailles treaty provided that "goods, the produce or manufacture of any one of the Allied or Associated States imported into Germany territory, from whatsoever place arriving, shall not be subjected to other or higher duties or charges (including internal charges) than those to which the like goods the produce or manufacture of any other such State or of any other foreign country are subject". This so called most-favoured-nation clause additionally restricted Germany in maintaining or imposing "any prohibition or restriction on the importation into German territory of any goods the produce or manufacture of the territories of any one of the Allied or Associated States, from whatsoever place arriving, which shall not equally extend to the importation of the like goods the produce or manufacture of any other such State or of any other foreign country". Although these clauses did not expressly mention the third states, the war es imported from the third states but originating in victorious states are affected. Article 271 provides the vessels of the Allied and Associated Powers to be treated as the vessels of the most-favoured-nation in German territorial waters. In aerial transport, the rights of passage, transit and landing favoured allied and associated powers, without any mention of the rights of the "thirds".<sup>13</sup> Here too, the most favoured nation clause is in full effect to protect interests of victorious states, so their aircraft enjoyed the same privileges as German aircraft.

While Germany had a free hand in determining its economic relations with third states, Article 267 provides that every favour, immunity or privilege regarding the importation, exportation or transit of goods granted by Germany to any other foreign country should be "simultaneously and unconditionally, without request and without compensation" extended to all victorious states. In order to give the effect of Articles 264 and 265, Article 323 obliged Germany not to discriminate or prefer "in the duties, charges and prohibitions relating to importations into or exportations from her territories... in the charges and conditions of transport of goods or persons entering or leaving her territories." Similarly, while goods in transit were exempted from customs and other similar duties, non-discrimination in the duties, charges and prohibitions regardless of a criterion, particularly regarding the flag of a merchant's vessel, did create an obligation for Germany towards non-parties of

<sup>10</sup> Similar provisions regarding war reparations are present in treaties with other defeated states, yet only in the case of Germany these clauses would be interpreted as an admission of war guilt.

<sup>11</sup> For more details see the 1919 Versailles Peace Treaty with Germany.

<sup>12</sup> Similar solutions were adopted in the Saint-Germain Treaty with Austria regarding the freedom of navigation and commerce on the Danube. The Neuilly-sur-Seine Treaty with Bulgaria, the Trianon Treaty with Hungary and the Sèvres Treaty with the Ottoman Empire respectively also stipulate freedom of commerce and navigation.

<sup>13</sup> See also Article 220 of the Saint-Germain Peace Treaty with Austria, Article 203 of the Trianon Peace Treaty with Hungary and Article 150 of the Neuilly Peace Treaty with Bulgaria.

the Versailles treaty. Moreover, regardless of German internal legislation, the third state could seek protection if it faced discrimination by German authorities in this regard.

The internationalisation of navigable parts of major German rivers such as the Elbe, the Oder, the Niemen and the Danube deserves a special mention. Article 332 states that “on the waterways declared to be international...the nationals, property and flags of all Powers shall be treated on a footing of perfect equality, no distinction being made to the detriment of the nationals, property or flag of any Power between them and the nationals, property or flag of the riparian State itself or of the most favoured nation”. Matters regarding the fulfilment of Versailles treaty provisions are subjected to the International Commission, which was given jurisdiction over any works that could impede the river navigation.<sup>14</sup> Since every state is responsible for maintaining navigable parts of its rivers in order to secure freedom of navigation, the Treaty in Article 336 provides the possibility for every other riparian state or the member state of International River Commission (even a “third” state) to initiate the question of responsibility of a riparian state before the League of Nations.<sup>15</sup> A similar solution was provided if the riparian state wilfully blocked any part of its internationalised river to impede river navigation. These clauses greatly enhanced the interests of “third” states, since they were also given subjective rights. To further develop this matter, the creation of the new international legal instrument in order to promote the freedom of navigation was envisaged, which in turn materialised in the 1921 Barcelona Convention and Statute on Freedom of Transit.<sup>16</sup>

Probably the most vexed question alongside reparations was the neutralisation of the Kiel Canal and its approaches since Article 380 provided they were to be “maintained free and open to the vessels of commerce and of war of all nations at peace with Germany on terms of entire equality”. It was not only forbidden for Germany to levy charges of any kind other than those provided for in the Treaty, but this restriction also embraced the non-signatory states. In this matter, the “third” states were additionally protected with previously mentioned non-discrimination clauses, most notably the equality of flags. Some resemblance to the adopted legal solution regarding the Kiel Canal neutralisation can be found in the non-ratified Sèvres Treaty with the Ottoman Empire. The Treaty provided the neutralisation of the Straits, including the Dardanelles, the Sea of Marmora and the Bosphorus. According to Article 37, the Straits were to be open “both in peace and war, to every vessel of commerce or of war and to military and commercial aircraft, without distinction of flag”.

The chosen wording of this article suggests that non-signatory states were also to be given the freedom of navigation and flight over the designated area. Also, the right to blockade the Straits without the consent of the League was taken away from the Empire, while the supervision of the execution of the Treaty, as well as the right of transit for other states was not entrusted to the Empire, but to the International Commission of the Straits.<sup>17</sup> Also, in ports of “international concern” such as Constantinople, Haifa, Basra, Trebizond and Batum, the free zones were to be established. The benefit from these free zones was to be extended to all members of the League of Nations, not just the Treaty parties. Additionally, Article 345 stipulates that any differences between “interested States” in “the use of the ports were to be settled in accordance with the conditions laid down by the League of Nations”.

<sup>14</sup> These Commissions were given authority to elaborate and refine the Versailles treaty provisions in order to implement the Treaty to a full effect.

<sup>15</sup> The Article 297 of the Saint-Germain Treaty with Austria had a similar effect.

<sup>16</sup> The Saint-Germain Treaty as well as the Versailles Treaty obliged Austria and Germany respectively to accede to this future international convention. One must point out that the freedom of navigation was promoted as early as the 1815 Vienna Congress. Andrassy (2010) and Vukas (1975) are providing more details on these matters.

<sup>17</sup> Since the Sèvres Treaty with Turkey had never been ratified, these issues were finally solved in the 1923 Lausanne Treaty and the 1936 Montreux Convention Regarding the Regime of the Straits. See also Quigley (2007).



### 3. The League of Nations' system of collective security

The devastations of the World War empowered efforts to build a new, better and more secure world and to prevent repeating past mistakes. For that to happen, some of the issues relevant for the whole international community were taken into account, even if they departed from the early 20th century customary norms. This new world demanded the broadening of the peace treaties' effects on the largest number of states possible and at the same time strengthening the role of the newly formed League of Nations.

The Paris Peace Treaties acknowledged the creation of new states in Europe in the aftermath of the First World War. With the exception of German unification, at least according to the so-called *Großdeutsch* concept and regarding Europe, the rise of new national (or "national") states was approved (Graebner, 2011, p. 23, 46). In a sense, borders were redrawn in a manner similar to the 1815 Congress of Vienna, where political reality was also confronted with a desired imaginary world of various key figures at the Conference. Without addressing the novelties of the Saar entity or the Free City of Danzig, one can notice some peculiar solutions regarding rights and obligations of the "thirds" in these treaties. For example, the Versailles treaty in Articles 40 and 41 defines demarcation lines between Germany and Luxembourg, while at the same time confirming the independence of the Grand Duchy, which was also explicitly absolved from its ties to the German Zollverein. However, Luxembourg was not a part of the Paris peace proceedings nor it was a signatory state of the Versailles Peace Treaty.<sup>18</sup> Similarly, Denmark was a non-signatory of this Treaty, yet Articles 109, 110 and 111 defined the border between this country and Germany. In order to do so, the Treaty even envisioned a referendum in the Northern Schleswig, as well as the procedure of swapping German for Danish citizenship to match a new borderline.

We must emphasise the fact that for various reasons some states were not present in Paris nor did they adhere to the Covenant of the League of Nations after the Conference. Consequently, victorious states in some rare instances insisted on creating the rights or even obligations for the non-parties to these peace treaties. An example of this is a mechanism provided for the protection of "weaker" states that could be once again in future threatened by expansionism of powerful states. One should bear in mind that at the beginning of the 20<sup>th</sup> century, war was not considered some "unnatural state" of relations between countries. Instead, the right to declare or wage war was recognised as a sovereign right of a state and a valid solution for achieving a political agenda. In light of this, we should acknowledge the fact that according to the letter of Covenant, the (aggressive) war was not outlawed as such. The first international instrument to do so is the Charter of United Nations, with the worthy predecessor in the form of the 1928 Paris Act.

Therefore, the League's mechanism only postponed the possibility of commencing the war or suspending the war activities by obliging member states to try to solve their differences peacefully. Initially, to avoid some future war, the Covenant of the League in Article 10 provided that "the Members of the League undertake to respect and preserve as against external aggression the territorial integrity and existing political independence of all Members of the League". Yet, this formulation left out non-members of the organisation so Article 11 clarifies that „any war or threat of war, whether immediately affecting any of the Members of the League or not, is hereby declared a matter of concern to the whole League, and the League shall take any action that may be deemed wise and effectual to safeguard the peace of nations.“ With the aim of doing so, the affected members of the League were not the only ones having this right since it was recognised as "a friendly right of each Member of the League". Subsequently, if the member state disregarded this obligation, according to Article 16, it was to be considered a warmonger, declaring war on all member states of the League.<sup>19</sup>

<sup>18</sup> In Article 435, the Treaty also recognised the neutrality of Switzerland which was by that time a non-disputed fact. In time to come, the question of treaty effects concerning free zones of Upper Savoy and the Gex district will arise between France and Switzerland. The Permanent Court of International Justice in 1932 will confirm that obligations contained in the Treaty could not bind Switzerland as a non-party. See *Free Zones of Upper Savoy and the District of Gex* (second phase). (1930). PCIJ Series A, No. 24.

<sup>19</sup> Different types of sanctions for offending state including armed response or the eviction from the League were provided.

The member of the League was obliged to use the provided mechanism to obtain a peaceful solution even in case of a dispute with a non-member. More importantly, a non-member state could also participate in an established procedure in the form of arbitration or inquiry by the League's Council. It should be mentioned here that certain states for various reasons decided not to join the League while the others at the time were excluded from the membership and even considered as hostile states.<sup>20</sup> Vague wording somewhat blurred the meaning of Article 16 in regard to non-member states, so Article 17 expressly stated that "in the event of a dispute between a Member of the League and a State which is not a Member of the League, or between States not Members of the League, the State or States, not Members of the League shall be invited to accept the obligations of membership in the League for the purposes of such dispute, upon such conditions as the Council may deem just." The non-member state could refuse this invitation, but in case of acceptance, it was forced to accept the obligations of membership in the League for such dispute. Vukas (1975, p. 121) notes that only in case of the non-member state accepting the invitation, the Covenant clauses could legally produce effects for its benefit.

The described mechanism left much to be desired. Even with notable predecessors such as the International Telegraph Union (established in 1865) or the Universal Postal Union (established in 1874), the legal personality of the League of Nations was disputed.<sup>21</sup> This could mainly be seen regarding disputes of "international concern" where non-members were affected. Not only the states such as Switzerland and Chile strongly opposed the League's jurisdiction over non-members, but also some authors like Schwarzenberg concluded that international organisations were established on international treaties and as such they could produce obligations for the "third" states only with their consent (Vukas, 1975, pp. 120-121). The authority of the League empowered the peace preservation mechanism, while the weakness of the same international organisation left deficiencies of that very mechanism exposed.

#### 4. Conclusion

The end of First World War brought about dissolutions of Austria-Hungary, the Russian Empire and the Ottoman Empire, while the German Reich transformed into the Weimar Republic. The creation of a new world demanded new solutions to old problems. To avoid a future war, the victorious states restricted economic sovereignty of the defeated states. While being aware that commerce and economic cooperation between states bring prosperity, the victors' treatment of the defeated powers in Paris advocated their own benefits. The allied powers facilitated commerce and transport through the defeated states' territories, whereas the implementation of the so-called most-favoured-nation clause effectively protected their economic interests. In order to do so, sometimes they promoted the interests of "third" states by creating subjective rights for them. Degan (2011) noted that "rights provided for the 'thirds' in some treaty do not have consensual character because they do not depend upon express or tacit acceptance. The legal basis of these treaties is closer to a promise as a unilateral act" (p. 154). This was especially evident from the matter of internationalisation of important maritime and river waterways, which in turn would become a basis of objective regimes development in the international law.<sup>22</sup>

Building a more secure world demanded more than broadening the effect of some clauses of the Paris Peace Treaties to encompass states such as Switzerland, Denmark or Luxemburg. Instead, maintaining peace requested a tenable mechanism which would redefine the right to wage war. While recognising the right of some states not to participate in the Paris proceedings or to become members of the League of Nations, the international community of states became reality more than ever before. This

<sup>20</sup> The United Nations Charter also refers to defeated states as "enemy states". For example, see Articles 53, 77 and 107 of the Charter.

<sup>21</sup> Not to mention the International Labour Organization which was also an offspring of the Paris Peace treaties, as well as the International Commission of the Straits or the Danube Commission or The Reparations Commission.

<sup>22</sup> In order to consume its right according to these objective regimes (e.g. the Kiel Canal or internationalised rivers), a state had to recognise the establishment of a particular objective regime and all obligations it contained (Andrassy *et al.*, 2012, p. 89).

mechanism which recognised the need to incorporate the “third” states in arbitration or inquiry before the League’s bodies was a historic step. The League did not succeed in its noble task of preventing the next World War, but its legacy proved to be a foundation upon which our world is built.

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## **THE IMPORTANCE OF COMPLAINTS IN THE SYSTEM OF INTERNAL CONTROL AS A QUARANTOR OF A SAFE ENVIRONMENT IN A LEGAL STATE**

**Abstract:** During the performance of increasingly complex and demanding security tasks, the police enforce various powers in different environments and is influenced by many factors, which facilitate or hinder their implementation. Powers are exclusively established to preserve and protect human rights and freedoms, but there is a serious violation of human rights and freedoms, which occur when irreparable consequences. One of the modalities to increase the level of legality, professionalism and accountability of police officers control. The focus of this work is the internal control of the police embodied in police oversight resolving complaints.

The aim is to show the importance of the role of the control of the police, as well as the problem-oriented aspects perceive the way of keeping the complaint procedure and present certain difficulties and specificities that make its implementation. Also, the present work is a function of determining the appropriateness of keeping the complaint procedure with the position of citizens, who complain that their rights or freedoms are violated.

**Keywords:** police, control, complaints, expediency.

### **1. Introduction**

The protection of human rights and freedoms of all citizens is what democracy is primarily expected of the police. In fact, the goal of every democratically-defined state is that police treatment is within the limits of the law, that is, to ensure that the performance of police duties and tasks is in line with the provisions of positive regulations and respecting basic human rights and freedoms.

At the same time, police officers are rightfully expected to be representatives of legal behavior, because they are bound by their function.

Although it represents a symbol of the protection of human rights and freedoms, the police at the same time pose a serious threat to these same rights and freedoms. It is precisely for these reasons that it is necessary to provide effective police control mechanisms, with the primary aim of preserving the constitution of guaranteed human rights and freedoms.

The significance and need of police control, among other things, derives from the values that are guaranteed and protected, which are human rights and freedoms as the highest values of the society.

The company found itself in the gap between the need to strengthen the police and its risks, between the need for protection provided by the police and the threats that the police might pose to the illegitimate use of force.

The powers that the police have at its disposal should serve and are exclusively aimed at achieving the security of citizens and protecting their rights and freedoms guaranteed by constitutional norms. However, despite their legal condition and certainty, it is certain that police actions may go beyond the required framework. More precisely, in police practice there is an overrun and even abuse of authority, which results in serious consequences on the social as well as at the individual level. In order to sanction these actions, or in an even better case, certain mechanisms of police control and accountability of its members are established. In fact, the purpose of establishing control mechanisms,

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in our case of control through the resolution of complaints, is the provision of responsible and professional supervision over the performance of police duties and tasks, as well as taking necessary measures against those individuals who have violated positive regulations, have violated or violated fundamental freedoms and rights citizens, and on which occasion the stigmatization of the entire police service comes to an end.

It is not our intention to question the expertise and dedication of members of this difficult and dangerous occupation, but this certainly does not mean that their illegal actions should be tolerated, but on the contrary, measures should be taken in order to determine their responsibility.

The aim is to show the importance of the role of police control, as well as to look at the problem-oriented aspect of how to conduct the complaints procedure and present certain difficulties and specificities that make it difficult to implement. Also, the present work is in the function of determining the promptness of conducting the complaint procedure from the position of the citizen, who is complaining that his rights or freedoms have been violated.

## 2. The importance and role of police control

In the day-to-day actions of the police and its members, there are possibilities in practice to overstep or even abuse of police powers, and in this connection, the violation of the equality of citizens before the law, violations of human rights and civil liberties. Therefore, the control of the work of state organs, and especially the police, is important for the further promotion of the rule of law, the building of a modern democratic society and the protection of universal values. On the other hand, the control of the work of state bodies (coercion) is very important from the point of view of protecting the reputation of the state, holders of state functions and perpetrators (Nikač, 2012, p. 39).

It is a fact that the police should be strong and efficient, but not at all violent. Their role should be directed to protecting all citizens impartially, and in order to achieve this, it is necessary to have a certain degree of control, by a variety of different subjects (Jovičić i Šetka, 2015, p.325).

By establishing a responsible and law-based police, the necessary condition is provided for the portrayal of the police role as a principle of rule of law as the elementary principle of the rule of law (Simović and Zekavica, 2012, p. 155).

The control of police work belongs to the category of legitimate rights and interests of each community in the processes of building modern and democratic institutions of the system. The primary objective of any control, and even the police, is to prevent and eliminate omissions of any kind during the performance of work operations. In the increasingly complex conditions of police work, which take place in the dynamic changes of contemporary social relations, the demand for its professionalization is increasingly emphasized (Mitric and Gajic, 2011, page 85).

The primary task of a democratic society that strives for the principles and values of the rule of law is to establish an effective police control system. What a society can, to a greater or lesser extent, approaches democratic values and the rule of law is precisely the way it faces and fights with the illegal work of the police. In this regard, it should be noted that the mere appearance of police illegality is not a sufficient condition to characterize a society as undemocratic. It is exactly what such a person is doing, whether in any way it fights against various forms of illegality. The success of this struggle depends largely on the adopted strategy of establishing the responsibility of the police and the success of the mechanisms for its control (Zekavica, 2011, pp. 71-72).

A modern democratic society presupposes a state in which there is a rule of law, respect for civil rights and freedoms. Control of the work of the police and its officers is necessary precisely for the protection of human rights and freedoms, and on the other hand it contributes to the affirmation of the police itself as a state body (Simic and Nikac, 2012, page 309).

The legislator gives a wide range of powers to the police officers, so it is important that these officers perform their work legally, that the law regulates the way of examining complaints about their work and the examination of their responsibility, and also that the law clearly stipulates the rights of police officers when the procedure is conducted against them due to violation of official duty, in order to avoid their harassment over the use of police powers (Juras, 2012, p. 734).

On the other hand, police powers should be strictly enforced in accordance with their legal purpose and in the manner prescribed by sub-legal acts, and under no circumstances can they represent the "type of sanctions" that police officers impose on "perpetrators" of criminal offenses and violations.



Laws must be based on the principle of generality, equality and compulsion. This means that the laws are the same for all, i.e. to relate equally to everyone and everyone. Such a standard is formally respected, but in practice it is significantly impaired (Kuzmanović, 2013, p. 25). Violation of rights is acquired in a special form when it is made by a police officer who is in charge of his protection and realization and which should be a representation of lawful and moral behavior, which citizens expect and demand rightly.

It is undeniable that police officers should enjoy public confidence, especially if we have in mind the many risks and dangers they are exposed to in order to help others. They, however, must not forget that honest respect and the trust of others do not automatically get by, just by choosing the profession, but that it must be earned. Conscientious and responsible work is undoubtedly the best way to achieve this (Kesić, 2016, p. 103).

In a modern society based on the ideas of human rights and the rule of law, it is necessary to undergo the control of organizations that have such a significant role in society and have such great powers. It could be said that the control of police work is the most important aspect of the problem of police relations towards the protection of human rights in the rule of law.

### **3. Legal determination of the control of police work by resolving complaints**

All democratically-minded states seek to adopt the values of the rule of law and the rule of law in order to protect and preserve human rights and freedoms, and accordingly strive to establish legal boundaries regarding the powers and competencies of the police, as well as its accountability and control. In the Republic of Serbia, control was given the legislative basis in 2005 by passing the Law on Police, which established external and internal control, which also found its place in the Law on Police, which was adopted in 2016.

The new Law on Police is a complete version of the 2005 Law on Police with significant newspapers aimed at improving police work and strengthening the capacity of the Ministry for the efficient execution of police and other affairs (Milovanović, Vukašinović-Radojičić, Otašević and Marković, 2016, page 11).

Therefore, the control of police work by resolving complaints is a novelty introduced by the Law on Police in 2005. In this way, the practice of handling complaints of citizens has significantly improved. Unlike in the previous period, since then, for the first time, a meritorious resolution of complaints has been envisaged, the procedure for filing a complaint has been regulated, from the receipt of the complaint until the conclusion of the complaint procedure. Subsequently, the said matter was more closely prescribed by the Rules on the Procedure for the Resolution of Complaints, and elaborated by the Instructions on the Application of the Rules of the Complaint Procedure. Today, the by-law regulation is defined in the Rulebook on the manner of acting in the course of the complaint procedure.

The adoption of the Law on the Police and the Rulebook on the procedure for resolving complaints encompassed the positive legal assumptions that the effectiveness of complaints on the work of police officers will be incomparably greater than before, when the submitted complaints of citizens were treated segmentally and according to internal rules (Miletić, 2009, page 346).

We can divide the period related to the submission of complaints by citizens to the actions of police officers and the implementation of procedures for checking their allegations in two parts: the period until 2005 and the period after 2005. The split point is the legal standardization of the police's control of the work of the complaint handling.

The ultimate goal of this law is the protection of human rights. According to this law, people are served and not managed by them. The law allows all people to whom the police serve, as well as the police and all its officers serving all people, to realize their interests - each of them - precisely determined and demarcated. The accomplishment of this goal is certainly also provided by the mechanism of controlling the work of the police through the resolution of the complaint.

With the entry into force of the Law on Police in 2005, this segment of police control in our country has become obligatory, he received legislative power and support, whose norms obligate and determine, both police officers and citizens.

Authors Nikač and Simić (2012) do not recognize it as an effective means of control: "We think that the current model of resolving complaints by citizens is to a great extent complicated, anachronistic modern needs and contrary to the principle of police mobility. In particular, it is necessary to expose the criticism of its effects on the work of the elders and on the results, because complaints are very often the subject of deciding the judicial authorities as the most appropriate for the protection of the freedoms and rights of citizens and members of the police "(page 316).

Some authors are glorifying the New Law on the Police because they have regulated important details about the state administration in this area, and even though the title of the regulations, the Law on the Police, does not only concern police affairs, police organization and the rights and obligations of police officers. A comprehensive approach is a blend of traditional starting point in drafting regulations in Serbia and a new way imposed by European integrations. The law has a central role and shows the state's readiness to take care of the security and protection of its citizens, their property, public order, etc. The legitimacy of police work depends on how and in what way is regulated by regulations, which is directly related to the concept of the rule of law in a democratic society (Nikač and Leštanin, 2016, pp. 124-125).

Authors Jugović and Simović (2016) pessimistically look at certain provisions of the New Law on Police and emphasize: "The quality of this law will assess the time of its validity and its application capacity. The rule is that good laws are applied for a long time, and they change badly after the adoption, and the worst, take over and "borrowed", which do not meet social conditions and never start life, they remain a dead letter on paper. The fact is that numerous omissions, negligence, negligence, inaccurate separation of police, internal and other affairs, sometimes and seemingly inconsistent with the provisions on essential concepts and categories, are simply the style of this law. Thus, the police, as institutions and citizens for whom the police (and should) exist, did not get the attention they deserve. An opportunity was missed to bring a modernized law in the true sense of the word, from which a "new period" would be counted in the legal norms of the police "(page 84).

#### **4. Reasons for and against the control of police work through complaints**

The positive side of the above is that the matter of police control through the resolution of the complaint for the first time got the basis in the legal text, i.e., has become a legal category. The arbitrariness of both citizens and police officers related to this area is minimized and their operation is determined by legal frameworks.

It would be logical to assume that, compared to the period before 2005, the legal level has increased the level of responsibility of police officers in undertaking tasks and tasks, as they are aware that their actions are now subject to the control of citizens in accordance with legal norms. It could also be argued that the level of responsibility and the police officers who check the allegations from the complaint is substantially increased, since their treatment is precisely determined and date limited (recording, confirmation, delivery of a call), without the possibility of any improvements and arbitrariness. This should add to the fact that citizens have a certain degree of certainty that this procedure will be strictly enforced, because they have a guarantee for this legal act. The consequence should be to have a more professional attitude of police officers in carrying out police tasks and tasks, and thus a higher level of protection and a reduction in violations of basic human rights and freedoms (Bikarević and Kesić, 2015, p. 5).

The process affirms the influence and presence of the public in the control of legality and respect for human rights, which can contribute to strengthening trust in the police and better contact with citizens if this institute is nurtured in terms of developing functional legal protection (Sokolović, 2012, page 150).

On the other hand, the regulations that regulate and define the implementation of the procedure are transparent, the two-stage procedure and the presence of the public, as well as the active participation of the complainant, are ensured. Compared to the period before 2005, the level of responsibility of police officers, as well as managers conducting verification procedures, has increased. This resulted in a more professional attitude of police officers when performing police tasks and tasks, and thus a higher level of protection, and reduction of violations, basic human rights and freedoms.

However, in addition to all this, the control of police work should not be overlooked by solving the complaints, because it is only one of the police control mechanisms in the whole spectrum of control mechanisms directed towards the police. On the other hand, no active participation of citizens in the implementation of the complaints procedure should be expected, in order to achieve general prevention, and without the realization of personal legal interests.

The complaint is a legal tool that is increasingly legally developed, upgraded and thus becomes an increasingly important means of controlling the work, regardless of the weaknesses that the whole mechanism has. It can be said that the complaint has a subjective, but also objective significance. Subjective - for an interested person in the case (complainant), and objective - for adjusting the activity in terms of accumulating a complaint for the same thing, i.e. based on the identical resolution of complaints for the same cases (the establishment of a proper police practice) (Jugović, 2013, p. 159).

However, the problems in the functioning of this form of police control work still exist. In addition, some of these problems are practical and the other are of a conceptual nature. A serious problem is the fact that, after completing the complaint procedure and actively participating in the complaint (filing a complaint, responding to calls, spending economic resources and time), the citizen does not realize his legal interests, regardless of the finding that the complaint is considered acceptable and justified. Furthermore, the mere fact that the allegations in the complaints and the specific actions of the police officers are questioned by officers who are themselves members of the police community raises doubts about the fairness of the appeal procedure and the objectivity of the decisions made (Bikarević, 2017, page 267).

Apart from the active participation in the complaint procedure, which is manifested, for example, through the use of time and material resources, the citizen did not realize his legal interests regardless of the justification and merits of the complaint lodged. Except for general prevention, the outcome of the proceedings has no effect or significance in relation to citizens who have been violated rights and freedoms. The fact that the police officer will take adequate measures of repression will not compensate the citizen, but only gives satisfaction that the illegal or improper treatment will not pass without the reaction of the competent authorities and a certain sanction. In order to exercise his rights, a citizen must go through a regular court procedure, which again requires active participation. It is a concessionary conclusion that the complaint procedure is not up to the citizen's position (Bikarević, 2017, p. 241).

Namely, the citizen did not exercise his rights because the consequences that resulted from the illegal or improper conduct of the police officer were not remedied. They still produce a certain harmful effect on the citizen, which must be eliminated in other court proceedings, which again require his active participation.

Of course, the Ministry of the Interior can not enter into judicial powers in terms of resolving disputes arising from a violation of the rights of the person, which is regulated by the Civil Procedure Act, but solutions can be found to compensate the citizen for the damage caused in connection with the conduct of the complaint procedure and thus send message of support and encouragement to citizens to point out the unconventional behavior of police officers (Bikarević, 2015, p. 126).

In case the result of the verification of the complaint is positive in relation to the citizen, the economic moment could be more favorable to him. The authorized person before whom the procedure is closed, during regular notification of the outcome of the procedure of the manager of the organizational unit in which the complainant works, should point out a specific proposal. It would consist of the obligation of the head of the organizational unit to indicate, when submitting an initiative to initiate a disciplinary procedure to the competent disciplinary officer, a possible reimbursement of expenses incurred by the citizen in connection with the complaint procedure.

We consider it appropriate to mention the weakened position of the police officer in terms of the availability of a second degree in the verification of the complaint.

It is explicitly stipulated that if the complainant is dissatisfied with the first instance procedure, he may initiate a second instance procedure, while the same possibility is not foreseen for the complainant or the police officer. It is not clear whether the issue is a failure in the legal regulation or it is considered that in the procedure of resolving the complaint of the rights of the complainants in no way can they be hurt, and therefore does not provide for the funds for their protection. In order to protect the dignity of a police officer, provision should be made for the initiation of a second-instance procedure by a police officer in case of determining his responsibility, in order to examine the complaint from another distance.

In the complaint procedure, ex officio is to be dealt with. Persons conducting the complaint procedure are strictly bound by the complainant's request and do not act outside the subject matter of the complaint. If mistakes are found by police officers not identified by the complainant during the course of the procedure, they are not acted upon accordingly. No checks are carried out against them.

Among the disadvantages of complaint to the work of the police can be fear of the police and ignorance of police powers, which leads to complaints that are often not submitted. However, by regulating the mechanism(s) of handling complaints and remedies that can be used against decisions on complaints, the control of the work by solving complaints is gaining in importance. In the end, we want to emphasize that the current records of the Ministry of Internal Affairs about submitted complaints of citizens and the implementation of the procedures for verifying their allegations are not at an enviable level. More precisely, the content of these records is not centralized and unified, and accordingly, it does not provide the possibility to consider complaints by citizens and complaints procedures on very important variables such as: • The reason for the filing of a complaint (illegality or irregularity in work); • which police work was carried out on that occasion; • the use of which police powers is associated with the alleged incident; • data on the complainant (gender, age, occupation, whether it has already been complained, how many times, how the procedures have been resolved); • information about the complainant (gender, rank or title, position, work experience, whether there have already been complaints against the police officer with the reasons, how the procedures have been completed); • the circumstances under which the alleged incident occurred (event time, location / location, whether it is within regular working hours); • Measures taken against police officers (Bikarević and Kesić, 2015, page 6).

We believe that the records in question are not organized in such a way as to give them a dose of representativeness, but that they have no operational and use character, which certainly does not contribute to the proactive work of the police as a whole.

## 5. Conclusion

It is noticeable that the intention and the desire to regulate the subject area and to lay down clear rules in order to regulate the procedure on the complaints of citizens, and thus encourage citizens to complain about the unlawful and improper treatment of police officers, with the aim of making the police more lawful and the realization of the protection and preservation of human rights and freedoms.

In order to achieve the greatest confidence of citizens in the police, and consequently in the conduct of complaints procedures, we consider that citizens should be permanently informed about the work of the police, as well as the complaints that have been filed against them and their merits. In addition, it is necessary, through continuous education, to instruct citizens to legally exercise their guaranteed rights and freedoms, in order to ultimately lead to as much redundancy as possible and illegal activities in the work of the police.

This form of controlling the work of the police, relying on other forms of control, has its role and importance in controlling the work of the police because it represents the institution of direct democracy that enables the citizen to address directly (verbally, in writing or electronically) to the competent authority, if he thinks that violated rights or freedoms, to participate actively in the proceedings and to inform about the outcome thereof.

Nevertheless, the citizen did not satisfy his legal interests, but only confirmed his view of the event in question, while the minutes on the consideration of the complaint which is the crown of the conduct of the complaints procedure does not oblige other state authorities in any sense.

From the above, the conclusion arises that the complaint procedure from the position of the citizen is indispensable, even taking into account the fact that the citizen agreed with the views of the head of the organizational unit that there is a violation of rights and freedoms. And in this case, except for the statement that it is "right", the citizen did not realize his legal interests. The situation would somewhat alleviate the compensation of the costs incurred by participation in the complaints procedure, so that citizens would not skip this mechanism for controlling the work of the Ministry of Internal Affairs and addressed directly "other institutions for the realization of their rights and freedoms" and achieved the same goal with a lower spending of funds.

Also, a more favorable situation for the citizen would be if the material from the complaints procedure would be included in the files of a possible court procedure, in order to reduce the engagement of the citizen to "two tracks."

It is necessary to unify the written documents necessary for the implementation of the complaint procedure, in order to harmonize the practice of dealing with persons who actively participate in its implementation (complainers, organizational unit leaders, Commission members, etc.).

Consequently, we consider it desirable that the authorities in the past resolve not only this, but also a number of other limitations and shortcomings in seduction of specific statistical data, which would certainly facilitate future scientific research, but would also benefit expert services within the Ministry of Internal Affairs for analysis concrete phenomena.

In order to protect the dignity of the police officer, it should be possible for a police officer to initiate a second-instance complaint procedure in cases where the head of the organizational unit and the complainant agree that there is a violation of the rights and freedoms in the complaint case.

The above-mentioned police control mechanism wants to achieve that the police use their powers in an extremely professional and impartial manner, equal to all citizens. It can also be said that otherwise one of the objectives of control mechanisms in general is general prevention and the creation of an environment that discourages police officers from violating the law.

On the other hand, the police forces themselves have to make enormous efforts in terms of reducing the number of justified complaints and creating an atmosphere in the work of the police, which will cause as little as possible the reason for the complaints of citizens. At the same time, within the framework of this process, determined repression measures should be taken against those police officers who violate and violate the rights and freedoms of citizens by illegal or improper actions.

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## THE PROTECTION OF NATIONAL MINORITIES IN TRANSFORMED SECURITY ENVIRONMENT

**Abstract:** The end of the 20th and the beginning of the 21st century was marked by events that significantly influenced the changing global security environment. These events caused the profiling of various social relationships, the creation of a new value system and the modification of existing conditions. The transformed security environment was reflected in different segments of the society, which caused a number of changes in the international community and legal systems of the states. Frequent conflicts and war events have led to the creation of a new international order whose most important symbols are the international organizations and the system of protection of human and minority rights. In newly created system, particular attention was paid to the attitude of the majority towards minorities and the level of protection of human and minority rights. Throughout history it has been shown that the transformed security environment represents a perfect ground for the emergence of a conflict between the minority and the majority, which additionally endangers peace and increases the risks that jeopardize security. The author deals with the modern system of protection of national minorities in a security-altered environment, putting special emphasis on the universal and regional system for the protection of national minorities. The aim of this paper is to establish the systems for the protection of national minorities in the new international order and the impact of security changes on the same. The methodological framework of research implies the use of various scientific methods of research, such as: dogmatic, dialectical, general method of contemporary scientific knowledge and method of normative analysis of legal texts and international documents. By applying the positive legal method, we came to the knowledge of the current legislation in the field of minority rights in the international community.

**Key words:** National minorities, minority rights, security, international order;

### 1. Introduction

Almost every important historical event had an impact on the evolution, profiling and general foundation of human and minority rights. Modern society at the beginning of the twenty-first century is exposed to many problems, security risks and unfinished processes. Nevertheless, the impression remains that human and minority rights are one of the priority areas for the functioning of political systems in most states, as well as the global development of human society. In this system of balance-of-power relations, and general globalization, the question of further expansion of the idea of human and minority rights, or the question of their existence, is raised. The changed security environment, both at the regional and at the universal level, has a special impact on the system of national minorities' protection. The increasing vulnerability of security is additionally compromised by the very same national moves that live in the majority state of the country, whose dissatisfaction can often be the stumbling block and the conflict between the minority and the majority, as well as the disturbance of collective security. The program of human and minority rights, both politically and legal, is currently going through an unstable phase, and maybe experiencing a legal crisis. In the changed security environment, greater emphasis is placed on national and international economies, border security, military and security capacity building, and more, while much less attention is paid to the protection and better impetus of human and minority rights. This is not a good practice, because the vulnerability of human and minority rights is one of the key factors of instability, security risks and potential warfare.

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## 2. Conceptual definition of minority rights and freedoms

In the international community there are a large number of countries that have national minorities among their population, that is, in which national minorities make up a significant part of the total population, and they need guarantee that special minority rights will be respected. This is also best illustrated by the following tabular presentation which shows us the representation of national minorities in certain countries.

Table 1. The share of national minorities in individual countries (source: author's empirical research)

MINORITY PERCENTAGES	STATES
Without ethnic minorities	Portugal
Up to 10% of minorities in total population	Austria, Czech Republic, Denmark, Finland, France, Greece, Ireland, Italy, Hungary, Germany, Norway, Poland, Sweden, United Kingdom
Between 10-20%	Bulgaria, Netherlands, Lithuania, Romania, Slovenia, Slovakia, Turkey
Between 20-30%	Belarus, Croatia, Ukraine, Spain, Serbia
Between 30-40%	Estonia, Macedonia, Moldova
Between 40-50 %	Latvia, Montenegro
Multinational states	Belgium, Bosnia and Herzegovina, Russia, Switzerland

At the international level, there is still no valid document that would clearly, precisely and accurately say what is meant by a national minority. This is best illustrated by the fact that a number of countries that became members of the Framework Convention for the Protection of National Minorities have made reservations and gave their views on what is meant by the term national minority. Some states have offered their own interpretations and definitions of minorities (Austria, Estonia, Poland, Switzerland), respectively, that they do not have minorities (Liechtenstein, Luxembourg, Malta), that there are only certain minorities, or that the Convention will apply only to certain minorities (Denmark, Macedonia, Germany, Slovenia, Sweden) (Paunović, Krivokapić & Krstić, 2007).

From the current definitions, and on the basis of subjective and objective criteria, we can say that a national minority is a numerically smaller group of citizens of a state, numerically justified and non-dominant, which traditionally lives for a long time on the territory of a particular state, which differs from the majority population by faith, language, culture, tradition, customs or other characteristics, and shows the desire to preserve and improve their particularities based on the principles of equality and non-discrimination.

Minority rights represent a special set of measures that serve to protect, preserve and promote the national or ethnic, cultural, linguistic and religious identity and special features of minority groups, and to achieve their full integration into social, economic and public life based on the principles of equality and non-discrimination (Kurtović & Kalač, 2013).

## 3. Contemporary system of protection of national minorities

Respect for basic human rights and freedoms, as well as the protection of national minorities, represent an important factors of stability, security and democratic development of each state (Kurtović, 2016). Modern

system of protection of national minorities can be observed at two levels, the level of protection on the international level, and the level of protection in the internal plan of national states. These two levels function in mutual correlation and hierarchical dependence. The international system for the protection of national minorities sets the standards of protection, and the national states try to harmonize national legislation with international standards.

International organizations of a universal and regional type, such as: the United Nations, the Council of Europe, the OSCE and the European Union, have the most important role in the universal system for the protection of national minorities. In addition to this, bilateral agreements between countries that solve specific problems related to certain minorities and minority rights are of particular importance. These bilateral agreements regulate the issue of minorities in two precisely defined states, but, given that there are many, they have a wider significance and a special role in regulating this area of law. As modern mechanisms that regulate the field of minority rights, certain political agreements and decisions of international organizations, primarily of regional character, appear. These acts signify a new phenomenon known as "soft law". Strictly, these acts are not legally binding and in the event of their disregard does not provide for an effective legal sanction. However, in spite of this, they play an important role in profiling new standards for the protection of national minorities. Also, the important role in the protection of national minorities are: reports by States Parties on the status of national minorities, statements by other states, complaints by individuals and groups, protection against international courts, and protection provided by certain non-governmental organizations.

#### **4. The protection of national minorities at global level**

Speaking of the protection of national minorities at the universal level, we must emphasize that the United Nations organization had a special role and importance in this field, which had led to minority rights being raised to a higher level and had become an integral part of the legal systems of most countries.

The system of the protection of national minorities within the United Nations had its evolutionary development from the moment of its creation to the present day. Access to minority rights within the UN can be seen from the time when minority rights are not qualified as a separate group of rights, until the moment of a special proclamation of these rights, and the formation of special bodies and bodies for their protection. The modern system of protection of national minorities in the United Nations is very developed, which gives concrete results in practice.

The Charter of the United Nations does not mention minorities at all, but it mentions the equality of all people in many places. Among the basic goals of the UN Organization, the promotion and promotion of human rights and fundamental freedoms for all, regardless of race, gender, language and religion, is explicitly envisaged. From a detailed analysis of the Charter, it can be concluded that it contains three types of provisions pertaining to minority protection. The first group of provisions include those provisions relating to the general protection and promotion of human rights. The second group consists of provisions expressing the principle of non-discrimination, and the third group constitutes provisions laying down the authority of the main organs of the UN.

The United Nations have adopted the "Universal Declaration of Human Rights" on December 10<sup>th</sup> 1948. There were no special provisions on the protection of national minorities, although there were any such proposals during its drafting. Some parts of the Universal Declaration, however, have some relevance in terms of minority rights. In the first place, these are provisions that proclaim the principle of non-discrimination and determine that the rights and freedoms of the Declaration belong to anyone without any differences based on race, color, language, religion, national origin and other circumstances. Of particular importance are the provisions that stipulate that everyone is equal before the law and, without any difference, have the right to equal protection of the law, in particular the equal protection against any

discrimination. The same day, when this Declaration was adopted, Resolution 217C III was adopted under the title "The Fate of Minorities" in which the UN expresses the view that they are not indifferent to the fate of minorities, although the minority issue is very complex and delicate, because of which it is not possible to foresee a universal solution. That is why the UN is lining up its organs to deal more closely with minority issues.

The difficult position and persecution of minorities in different parts of the world has influenced the specific provisions for the protection of minorities in certain international treaties. Among them, the most important is the Covenant on Civil and Political Rights of 1966, which in Art. 27 states: "In a state where there are ethnic, religious or linguistic minorities, persons belonging to these minorities cannot be deprived of the right to have, along with other members of their group, their own cultural life, confess their own religion and perform religious duties, or to use their own language." This provision today constitutes the basis for international protection of minorities in the general plan, given the large number of states from all continents that have accepted the Pact. Its value is not diminished by the fact that it is too short and insufficiently precise. Namely, it contains only cultural, religious and linguistic, but not other minority rights. After fifteen years of work on the adoption of a special document on the protection of national minorities, the UN General Assembly adopted in December 1992 the Declaration on the Rights of National or Ethnic, Religious and Linguistic Minorities. This Declaration, although it contains only nine members, encompasses a broad list of the rights of the said minorities, but also the obligation of states to protect the existence and character of minorities in their territory and to encourage the conditions for improving their identity. In addition to the rights already foreseen in the Pact, which are repeated and further elaborated, the Declaration also lists some completely new rights. As such, the following are recognized: the right to participate actively in social, economic and public life, or to participate in decision-making on minority issues at the national and regional level. Minority members have the right to establish and maintain their own companies and associations, the right to free and peaceful contacts with other members of their group and members of other minorities, as well as cross-border contacts with citizens of other countries with whom they are linked on the basis of ethnic, religious or linguistic relationships. They can exercise their rights to minority members individually or together with other members of their group. This Declaration represents so far the most complete United Nations act adopted in the field of minority protection. At the same time, this is the first universal international document that is fully dedicated to the rights of minorities. The declaration, however, is not an international treaty that legally binds states. It merely expresses the basic principles of minority protection that have achieved broad agreement of the international community. Nevertheless, although it is not a binding legal document, this Declaration is one of the first international documents that have tried to promote the protection of national minorities, and hence the "moral authority" (Benoit-Romher, 1996) has an exceptional significance.

In addition to the above documents in the United Nations, there are a whole range of different acts and documents for the protection of minorities. A considerable number of documents were brought by the General Assembly, but specialized agencies and other bodies of the United Nations also played a very important role. The United Nations has made an immense contribution to the protection of national minorities at the non-religious level, and the adoption of the Declaration on the Rights of Persons Belonging to Ethnic, Religious or Linguistic Minorities has influenced the creation of a new international order specifying in particular the protection of the rights of national minorities.

## **5. Protection of national minorities at the regional level**

The European system for the protection of national minorities, as a regional protection system, has the longest tradition and the highest level of protection in national minorities. Organizations that are directly responsible for the high degree of development of minority rights in Europe are: the Council of Europe



(CE) and the Organization for Security and Co-operation in Europe (OSCE), and relatively good mechanisms for the protection of national minorities have been established within the European Union.

The Council of Europe is a regional European organization founded on May 5, 1949. The condition for admission to the Council of Europe is the acceptance of the principles of the rule of law and respect for human rights, as well as the multi-party system of democracy (Dimitrijevic et al., 135). Within the Council of Europe, a number of treaties dealing with the protection of human rights have been adopted, but only some of them are fully or partially dedicated to the issues of minority protection. Three such treaties are most important for the protection of minorities: the Convention for the Protection of Human Rights and Fundamental Freedoms, the European Charter on Regional and Minority Languages and the Framework Convention for the Protection of National Minorities.

The Convention for the Protection of Human Rights and Fundamental Freedoms was adopted in 1950, and it covered, in particular, civil and political rights, and had been supplemented or amended several times in the protocols. However, the Convention only establishes rights that belong to all persons, and does not contain any provisions that would apply to special protection of minorities. Some provisions of the Convention on Human Rights provide protection in the indirect way to minorities.

An extremely important document of the Council of Europe in the protection of national minorities is the European Charter on Regional and Minority Languages adopted by the Committee of Ministers of the Council of Europe on 25<sup>th</sup> June 1992, which entered into force on 1<sup>st</sup> March 1998. Member States of the Council of Europe", considering that the right to use a regional language or the language of minorities in the private and public sphere is inalienable law adapted to the principles embodied in the International Covenant on Civil and Political Rights of the United Nations and in accordance with the spirit of the Convention for the Protection of Human Rights and Fundamental freedom of the Council of Europe, have adopted this Charter. The European Charter of Regional or Minority Languages is a contribution to the maintenance and development of European cultural wealth and tradition, through the protection of historical regional and minority languages. Although in the title of this document there is a "charter", the term commonly used for some politically and legally non-binding acts, it should be emphasized that it is an international treaty of a binding nature. As a primary objective, it does not have the protection of minorities, and therefore does not establish any personal or collective rights of members of minorities. However, given that the languages of ethnic minorities can most often qualify as regional and minority, they enjoy protection from the Charter. In the first part of the Charter, the definition of the term "minority languages" is given. This term refers to those situations in which the language speaks or persons who are not concentrated in a specific part of the state territory or some group of people who, although concentrated in a part of the territory of the respective state, are numerically smaller than the population in the region spoken by the majority language of the state.

The most important document in the area of minority rights adopted by the Council of Europe is the Framework Convention for the Protection of National Minorities. It is the first comprehensive regional international treaty and the first legally binding international instrument that is entirely dedicated to the protection of national minorities. The Committee of Ministers of the Council of Europe adopted in 1994 the Framework Convention, which entered into force on 1<sup>st</sup> February 1998. In the title of the Convention, the attribute "framework" is used, because in the regulation of certain rights it uses program-specific terms. Respecting the different situation in the countries, its creators considered it unfeasible to enter into the Framework Convention provisions that regulate minority rights in a detailed and exhaustive manner. The framework convention, in general, only establishes the general objectives and principles that States must respect when exercising the rights set out in minorities. However, as an international treaty, it creates legal obligations for States Parties and obliges them to implement established principles by taking concrete measures, refraining from specific practices and guaranteeing specific rights. This instrument provides legal frameworks for state action, and states decide which modalities to apply in order to implement the provisions of the Convention within their legal systems. In this way, the protection of minority rights at the European and local levels is being supplemented. States accept the obligations of the Convention, believing that "the protection of minorities is an integral part of international human rights

protection", and that the protection of minorities is realized within the framework of the "rule of law, respect for territorial integrity and national sovereignty of states."

In addition to the most important documents for the protection of national minorities within the Council of Europe, there are other documentary bodies and bodies dealing with minority protection, such as the recommendations of the Parliamentary Assembly on the protection of minorities, or specific issues of importance for the protection of national minority, that is, the position of certain minorities. Recommendations by the Committee of Ministers, such as recommendations on hate speech, on education of Roma children and others, have specific weight.

Within the Council of Europe, there is a wide-ranging system of organs that are very different in terms of its founding and the importance of decisions. First of all, there are the main bodies of the SE, which are: the Committee of Ministers, the Parliamentary Assembly, the Secretariat, and since 1994 the Congress of Local and Regional Authorities of Europe. These main bodies may also establish other bodies, so the Committee of Ministers has established the European Commission against Racism and Intolerance and the Human Rights Commissioner. Finally, there are bodies established by treaties on the protection of human and minority rights concluded under the auspices of the Council of Europe. Of importance for the protection of minority rights, the European Court of Human Rights, the Committee of Experts and the Advisory Committee should be mentioned.

A special aspect of the protection of national minorities is also realized through the Organization for Security and Cooperation in Europe. An important role in defining, protecting and implementing the rights of persons belonging to national minorities is with OSCE documents, which often become guidelines for further development of the protection of national minorities on the European soil. Their character is great, especially in countries in transition. Of the documents that are particularly important for the protection of national minorities within the former OSCE and today's OSCE, the following are specifically set out: Helsinki Final Act and the Copenhagen Document.

The Helsinki Final Act was adopted at a conference of the CSCE in 1975. Among other issues of human rights protection, some of the provisions concerning minorities are included in this document, and the most significant of them are: "Countries in whose territory national minorities have a national minority will respect the rights of members of these minorities to equality before the law and will enable them to enjoy the rights of human rights and basic freedoms." This refers only to the individual rights of persons belonging to national minorities, and this formulation repeats what has already been said in Art. 27. The Covenant on Civil and Political Rights. Bearing in mind that the Helsinki Act only speaks of national minorities, does not provide a definition of minorities and leaves the issue of the existence of minorities to States, its scope in the field of minority protection is limited.

The "Human Dimension" meeting held in Copenhagen in 1990 is considered to be the most important event for the protection of minorities within the OSCE. An act known as the Copenhagen Document was adopted on it, and today it is the basic instrument of the OSCE, which sets standards for the protection of national minorities. This document contains the principles on which the protection of national minorities is based. The Copenhagen Document also contains a number of specific rights of members of national minorities and the obligations of States: the right to private and public use of the mother tongue, the right to establish and use their educational, cultural and religious institutions, the right to respect their religion and religious customs; establishment and maintenance of contacts with persons of common ethnic and religious origin, both in the country and abroad, the right to establish NGOs, the right to real participation in public life, the obligation of states to protect the identity of minorities and create conditions for its preservation and development, to seek to ensure that national minorities learn their mother tongue during schooling or that they are trained in that language.

The following OSCE documents, from the Paris Charter for a New Europe (1990), the Moscow Final Document (1991), the Helsinki Document ("Challenges of Change", 1992) to the Budapest Document ("Towards a Real Partnership in the New Era", 1994), reinforced and expanded the obligations of States

Parties which now include obligations in relation to, inter alia, international humanitarian law and the rights of ethnic groups that do not have the nationality of the signatory country: refugees, migrant workers and indigenous people (Kržanić-Pavlović, 2002). The OSCE has continually expanded its activities in the field of national minority protection, which resulted in the emergence of the organization at the end of the 1990s: The Hague Recommendations on Minority Education, Oslo Recommendations on Information in Minority Languages, and Recommendations from Lund on Participation of Members national minorities in public life.

In 2001, the Office for Democratic Institutions and Human Rights of the OSCE adopted *Smernice* for the participation of national minorities in the electoral process. These guidelines are designed to help governments and organizations that represent or support national minorities. The assistance is aimed at improving the legal framework for the electoral system that enables the effective participation of national minorities in public life.

In addition, in 2003, the OSCE also adopted *Guidelines on the Use of National Minority Languages in Electronic Media*. These guidelines, as well as earlier recommendations from The Hague, Oslo and Lund, aim to encourage and assist States in the adoption of certain measures aimed at reducing tensions linked to national minorities and thus serve the ultimate goal of the High Commissioner for National Change to exercise a mission to prevent conflict.

The Organization for Security and Co-operation in Europe presented the latest Recommendations on national minorities in inter-state relations in the northern Italian city of Bolzano in 2008. As previously recommended by the Office of the High Commissioner for Minorities, Bolzano's recommendations serve primarily as an incentive for Member States to adopt certain measures to reduce the tensions associated with the national minorities they inhabit.

In view of the increasing ethnic diversity in all OSCE member states and the increased interest in models and approaches to integration, the High Commissioner for National Minorities decided to synthesize the collective experience of the High Representative for National Minorities and share this experience with others through the Ljubljana guidelines for the integration of diverse societies in 2012. The guidelines do not retain mere support for the recognition of minority culture, identity and political interests, but, additionally, recommend that states ensure the establishment of communication and interaction overcoming ethnic divisions. These guidelines suggest that national minorities not only need to exercise their legal right to participate effectively in general government, but rather to be encouraged to do so. Guidelines are composed of four parts: the structure of the principle, the principles of integration, the elements of the integration policy framework and the key policy area. They are a combination of a normative and practical approach, based primarily on the experience of the High Commissioner for National Minorities acquired in the work on resolving the issue of national minorities in the context of post-Cold War tension, state building and consolidation. Although the guidelines are based on the concrete practical experiences of the VCNM and do not contain an exhaustive list of all aspects of integration policy, they provide insight into this policy and offer conclusions that may be relevant in various contexts.

In Europe, at the end of the 20th and the beginning of the 21st century, there were simultaneously two processes, on the one hand, the process of integration of West European countries that sought to integrate as much as possible through the European Union and, on the other hand, the process of disintegration in the Central- Eastern Europe, accompanied by the eruption of nationalism, separatism and ethnic conflicts. With the disintegration of former socialist countries (USSR, SFRY and CSSR) and the creation of new countries, it is estimated that there are between 90 and 100 million members of national and ethnic minorities in Europe today (about 12% of the total European population), the highest number recorded in the recent European history (Raduški, 2015).

The modern history of Europe is the history of national states, where national identity was the dominant form of collective identity since the eighteenth century. Since 2013, the European Union gathers 28 Member States with about 500 million inhabitants. In some European Union countries, minorities

represent a significant part of the population: Lithuania 40.8%, Estonia 34.2%, Spain 21.9, Bulgaria 20.4% etc. (Pan & Pfeil, 2003). In addition, it is estimated that at least 30 million EU citizens, as their mother tongue, have a regional or "less-used language". Today, European countries become places of residence for all different groups of the population, with multiple collective and personal identities (Turnšek et al., 2009).

Human rights policy within the European Union (EU) is primarily concerned with the protection of economic, social, civil, political and cultural rights, while to a lesser extent it refers to special minority rights. Discrimination against minority groups has become one of the main problems faced by EU Member States and candidate countries. The issues of racial, ethnic and gender discrimination became the main concern of the leaders of the Union, and it was therefore decided that special attention should be paid to suppressing these forms of discrimination and protecting the rights of victims (Vasiljević, 2011).

The Maastricht Treaty of 1992 provides that the Union respects the fundamental rights guaranteed by the Convention for the Protection of Human Rights and Fundamental Freedoms. The Treaty obliges the European Court of Justice to oversee the observance of these principles by European institutions, and provides for sanctions in case of violations of fundamental principles by a Member State. This treaty does not recognize minority rights as a separate set of rights, but for the first time within the EU, the provisions on fundamental rights and recognition and respect for "national and regional diversity" are mentioned in the EU Member States.

In 1993, the European Union adopted the Copenhagen Criteria for countries that want to join the Union. In these criteria, it is emphasized that respect for minority rights is one of the conditions for the country's accession to the Union (especially post-socialist), which states must fulfill in order to join the Union. The Copenhagen criteria state that "membership requires the candidate country to achieve the stability of institutions that guarantee democracy, the rule of law, human rights and respect for and protection of minorities".

Later on, the Treaty of Amsterdam proclaimed "freedom, democracy, respect for human rights and fundamental freedoms and the rule of law" as the principles on which the Union is based. This Treaty provides for the competence of the Union in the field of combating discrimination on grounds of gender and racial or origin, ethnic origin, religion, disability, age or sexual orientation. Thus, to the Treaty of Amsterdam, there were no provisions of primary law on those that prescribed the protection of national minorities.

On March 21<sup>st</sup>, 1995, the Stability Pact of Europe was signed in Paris with the aim of securing peace and democracy in northeastern Europe and reaffirming respect for minorities. The Stability Pact for South East Europe of 10<sup>th</sup> June 1999, launched at the EU's initiative, is also paying great attention to the protection of minorities.

The Treaty of Nice is supplemented by Art. 7. The EU Treaty, by introducing a mechanism for the prevention of human rights violations, according to which, the Commission, the Parliament and a third of the member states may ask the Chamber to establish the existence of a danger of serious human rights violations in a Member State and, subject to the agreement of the Parliament, refer the appropriate recommendation to the State concerned.

At the meeting of the European Council in Nice in 2000, the EU Charter of Fundamental Rights was adopted, which for the first time in the history of the European Union identifies a series of civil, political, economic and social rights of all citizens and persons residing in the EU.

In 2000, the European Union adopted two directives for the protection of European Union citizens against discrimination based on race and ethnic origin (the Racial Equality Directive) and on the basis of religion, religious affiliation, disability, age or sexual orientation (the Employment Equality Directive).

In 2002, on the proposal of the European Parliament, the European Commission established the Network of Independent Experts on Fundamental Rights.

The Bolzano Declaration, signed by European experts in the field of minority rights on the day of the enlargement of the Union on 1<sup>st</sup> May 2004, requires additional monitoring of the protection of minority rights in candidate countries. The Declaration proposes the inclusion of minority protection in the process of monitoring human rights violations in member states, which is done through the preparation of the annual report on the state of human rights in the EU. Empowering the European Union as a community of values and enhancing cooperation between the European Union, the Council of Europe and the OSCE on the protection of national minorities. In addition to European frameworks, the European Union has proved itself to be active in terms of minorities and when it comes to subjects outside the EU. For many years now, trade and other agreements with developing countries have built up clauses on respect for human rights, including minority rights. Respect for the rights of ethnic minorities, in line with OSCE commitments, is an essential condition that the Union demands as one of the political conditions for the admission of new members to the European Union.

The Lisbon Treaty since 2007 has been adopted with the aim of making the European Union more democratic, more efficient and transparent. The newly-established Article 1 states that "the Union is founded on the values of respect for human dignity, freedom, democracy, equality, the rule of law and respect for human rights, including the rights and rights of persons belonging to minorities." In the preamble of the Charter of Fundamental Rights in the European Union, which was signed at the European Parliament session on December 12<sup>th</sup> 2007. In Strasbourg it states that, while respecting the principle of subsidiarity, it reaffirms these rights as a result of the constitutional tradition and international obligations of the Member States, the EU Treaty and the Community Treaty. The Charter calls for an obligation to respect the Convention on Fundamental Rights and Human Freedoms, the social chartered by the European Community and the Council of Europe, as well as the practice of the courts: the European Court of Justice and the European Court of Human Rights (Defterdarević, 2011). Although the charter does not provide for specific rights, it is stated that the Union respects cultural, religious and linguistic diversity, and guarantees the right to a few specific rights that may serve in the protection of national minorities.

Concern for minorities (in other countries) is expressed in a certain way through other international initiatives that have been or were under the influence of the European Union, such as the Stability Pact in Europe (1995), the Stability Pact for South Eastern Europe (1999) etc. Also, the protection of minorities becomes part of some other European forms of cooperation, such as, for example, Central European Initiative (CEI).

The issue of the protection of national minorities in the European Union will be particularly important if the EU reaches membership of 39 countries and thus has a population of nearly 800 million, and then minority members in the total population will participate with about 11.5% (ie over 86 million). Then the problem must be wider and more serious. If this happens, the adoption of new international documents by the EU in the field of minority rights should be expected.

## 6. Conclusion

Contemporary societies are extremely dynamic, each decade changes the priorities and principles on which the activities of the most influential global actors and powers lie. If we have been able to talk about the global domination of human rights over the past decades, today we can certainly see that energy security, the fight for energy potentials, and the struggle for the preservation of peace and general security are the mainstream of the main political actors in the international community. In the face of a security-altered environment, struggles for energy potentials and security in general, human rights have been put into the background, which in some way leads to their stagnation. The relationship with human rights is



often reflected on minority rights, however, this does not have to be decisive. This construction process is not a bit short, which implies a longer time for full foundation and application. In the modern international legal order, a special system of minority rights has been developed, which is under the surveillance of international organizations and other relevant international factors. The modern system of national minority protection and a special system of minority rights can be seen as a dynamic process, which is in development and expected to show its specific products in the near future. What can be noted is that modern mechanisms for the protection of national minorities are much more developed and better than those who were on the scene in the past, and that these mechanisms have influenced minorities to become an important factor for each state individually as well as for the entire international community in general. When it comes to the states themselves as the addressee of minority rights, in the last few decades, the trend of incorporating specific norms on minority rights into national constitutions has been expressed, the adoption of special laws regulating minority rights, amending the laws regulating other areas, but which some of its members regulate minority rights, the adoption of various by-laws and the formation of special institutions dealing with the protection and promotion of minority rights. One such approach contributed to the emphasis on special rights of national minorities in contemporary international relations, not only as an internal problem of one state or several of them, but as a very important global issue. As a whole, today we have another attitude towards national minorities, their integration into the legal, political and social system of the states, with the tendency of further growth and improvement of their status. In a security-altered environment, national minorities are protected by international legal standards of a universal and regional type, which reduces security risks and guarantee peace.

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## FINANCING TERRORISM AS A FORM OF GLOBAL SECURITY THREAT

**Abstract:** The global nature of terrorism as a security threat and financing of the same diverse legal and illegal channels requires the need to design preventive and repressive measures on a global scale. Normative frameworks established within a number of international, supranational organizations, regional alliances and at the level of national legislation are fundamental guidelines to security services that, within their jurisdiction, deal with the detection and cross-cutting of terrorist financing channels. By unraveling the economic dimension of terrorism shaped by organized crime, money transfer systems and the abuse of charity charities, the aforementioned global security threat can be resolved that affects a large number of human casualties every year.

**Key words:** terrorism, financing, money laundering, threat, security;

### 1. Introduction

Hezbollah, Al Qaeda, ISIL, PNR, and many other existing or formerly existing, more or less known, influential and more influential, terrorized or globally motivated by politics or religion terrorist organizations are anti-state, anarchist-regulated, highly operational, and functional organizations (Bilandzic, 2010). The manner in which terrorists finance their illegal activities of far-reaching and irreversible consequences and modalities of monetary transactions became a subject and focus of global concern after September 11, 2001. Over the years, several dozen ways of financing terrorism have been discovered (Amoore, Marieke de Goede, 2008). Modalities vary and advance in line with technological advancement and the needs of the new digitized world and are extremely adaptable. For this reason, the acquisition of finance and its transaction, as an important intermediary, are the key to fighting this malignant disease (Freeman, Ruehsen, 2013). Considering the fact that the *modus operandi* of financing terrorist attacks are rarely repeated, the ways in which financing and transactions of money are realized are most often noticed only after the conducted attack of this investigation (Barrett, 2006).

The question arises as to whether the prevention of financing of terrorism is possible, how much is the coefficient of its success, and which platform on the world level of terrorism provides to the state apparatus? "The measures with the aim of combating the financing of terrorism ... dramatically expand the discretionary powers of the state apparatus in response to criminal political activities. In addition, they provide a mechanism through which individuals, humanitarian organizations, social justice and well-being are financially crushed." (Jude McCulloh, Pickering, 2005: 45) Regardless of the important political exploitation of this alarming situation, the fact is that the protection of human life and the world economy is the highest international value, while the threat of human rights is an inevitable collateral victim.

Al-Shabaab, a jihadist, fundamentalist ally of Al-Qaeda in eastern Africa was a focus of consideration on one of the UN Security Council, the Control Group for Illegal Activities in Somalia and Eritrea (hereinafter referred to as the Control Group). Since 1992, the control group has been reporting to the public regarding various modes of its money inflows, which has led Al-Shabaab to become a subject of

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freezing assets, arms embargoes, and banning travel to its area of operation. In 2011, the control group assessed their annual cash flow of between 70 and 100 million US dollars based on air and marine fees, taxes on goods and services, domestic tax, "Jihadist contributions" and Zakat. Charitable giving, known as Zakat, is one of the five pillars of Islamic faith. It also functions as a form of income tax, educational assistance, foreign aid, and political influence (Roth, Greenburgh, 2004).

The control group also described a lucrative and profitable trading circle consisting of coal exports and the import and smuggling of sugar. A proactive UN measure was to set a ban on coal exports, and it was adopted in all neighboring countries, except in Saudi Arabia and the United Arab Emirates. In this way, Al-Shaabab realized about \$ 25 million a year only from the source. Adapting the imposed ban, Al-Shabaab has expanded its sources of revenue to the ransom, the contributions of various foreign backing organizations and diaspora, and the extortion of money from various humanitarian organizations, diversifying the funding of its activities by using the slogan "Never depend on one single source of their income, invest and create others." (Biersteker, 2007: 67)

Similar modes of financing with some differences are also used by Hezbollah. Most of them rely on external sponsorship by various countries like Iran and Venezuela (Karmon, 2009). Iran's funding for Hezbollah is around 800 million US dollars a year, while Venezuela contributes to smuggling drugs, linking Hezbollah with Latin American drug cartels and their logistical support. The following are classic forms of financing through donations of diaspora, taxes of foreign companies whose main positions are like-minded and fellow citizens, and finally through the money laundering system through banks and consulting companies.

While Al Qaeda used couriers for the physical transfer of funds before September 11, 2001, for attack on the World Trade Tower, its activities expanded to transfer money to traveler's checks, as well as to the banking system as a whole for transactions of smaller amounts of cash funds. Khalid Sheikh Mohammed surrendered \$ 120,000 in cash to Abdul Aziz Ali in Dubai, who then transferred money to the kidnappers' accounts and an additional \$ 10,000 to any kidnapper who was still in Pakistan at the time of the attack. In this way, 70% of Al Qaeda's budget was financed, while for the rest, funding for classical methods, as well as part of the private wealth of Osama bin Laden (Freeman, Moyara, 2008), is assumed.

## 2. The cost of a terrorist attack

An analysis of the monetary value of a terrorist act can be based on several different types of studies. Some studies necessarily focus on equipment for the detonation of a terrorist act, while others analyze and evaluate all cause-and-effect relationships, including the attack itself. Most studies estimate the amount of money needed to carry out a terrorist attack, without taking into account other possibly even more important components, starting with financiers of terrorist actions, money transfer channels, transport, etc. (Bolta, 2010: 420)

Other available UN assessments on the amount of funds needed to finance terrorist attacks point to the fact that its success and the amount of funds invested in preparation and organization are not necessarily in correlation, which is supported by the occurrence of terrorist attacks below. The terrorist attack carried out in Kenya and Tanzania in 1998, which killed more than 5,000 people, was carried out with a budget of less than 50,000 US dollars. Al-Qaeda's attack on the American ship in the Aden port in Yemen in 2000, killing 17 sailors and 2 assailants, was carried out for less than \$ 10,000. The Madrid bombing in 2004, killing 191 people, was carried out by a Muslim cell inspired by Al-Qaeda with a cost of \$ 10,000. One of the most complex terrorist attacks in the world that raised the international community to its feet

and marked a turning point in the fight against terrorism, declaring officially the war on terrorism, amounted to as much as 500,000 US dollars (Winter, 2005).

Despite the fact that the development of the bomb is a "budget friendly" venture, it must not be misled by us, because one of the biggest misconceptions is that terrorism is a cost-effective activity (Bures, 2009). An analysis of the attack should take account of logistical support that depends on a number of factors, such as the organization's networking, scouts of the performers and locations, the so- "Boot camps", about the costs of the very activity of conducting a terrorist action, which ultimately results in a terrorist attack.

The significance of logistical support is visible on the example of a bomb attack of only a few hundred pounds in London in 2005, the cost of which exponentially increases when all logistical support and other financial costs such are taken into account such as: finding invaders, recruiting, equipment costs, communications, obtaining falsified documents, costs related to intelligence work in order to determine the most appropriate goal of the attack, the cost of safe houses and the specific cost of the attack itself. The deficit in the terrorist group can lead to the potential maintenance of the reserve teams of the attackers, in the event that the first team fails in its terrorist attack (Bolta, 2010: 423). All data point to the fact that terrorism is a game of large players with a lot of capital consisting of a number of relatively small transactions, which gives the importance of implementing due diligence procedure as part of an anti-money laundering risk based approach. Measures to prevent money laundering can also be applied to the prevention of terrorist financing precisely because of the elasticity of its definition. In a broader sense, money laundering represents all the activities related to the permanent eradication of the illicit origin of money from various criminal sources and the reintegration of that money into regular cash flows, which implies a direct link between money laundering and terrorist activities.

### 3. Forms of financing terrorism

The Office for the Prevention of Money Laundering and Terrorist Financing of the Republic of Croatia has divided the basic types of terrorist financing through humanitarian organizations, legal business activities, self-financing, monetary funds obtained by criminal offenses, state sponsored terrorism, the use of the financial / trading system and the physical transfer of money (Official Gazette, 87/08, 25/12). However, terrorism can also be financed in an illegal manner, although in practice, funding from legal sources, donations, through humanitarian associations or legal business activities prevails. Although legality binds itself to greater administration by slowing down the entire process, it is attractive because it is more difficult to discover and locate it. The unlawful way of financing terrorism, on the other hand, is attractive in that it is untouched by administration, bureaucracy and masking various illegal transactions into legal causes and by providing evidence of it. Frequent illegal ways of financing terrorism is extortion of money under the threat of violence, so-called racketeering, which in itself already has certain features similar to terrorism, starting with the psychological effect of fear under the threat of violence. Such a modus operandi is called the "revolutionary tax" jargon, and is used by numerous organizations like IRE and Basque ETE.

Terrorist organizations most often use conventional systems of financial or other business to fund their illegal activities. The most common ways of allocating financial assets are credit institutions used in conventional transfers of cash or other domestic or international transactions. In addition, the transfer of money to terrorist organizations is not different from money laundering, since both activities attempt to hide the trail of the financier or sources of business activity from which illegal activities are financed, with the exception that money for the financing of terrorism can be from legitimate sources. In order to prevent such a action, numerous restrictive and proactive measures are undertaken: depth analysis of

clients, direct freezing of assets of terrorists and related persons, and other measures, and a framework of a risk based approach (Bolta, 2010: 424).

Another form of the legal ways of transferring money is Hawala. Even though Hawala can be found in developed and non-developed parts of the world, it can universally be defined as transfer of money and value from one place to another, or as money transfer without its physical movement (Passas, 2005). Theoreticians often define it as a pre-modern financial transfer system through reliable informal networks (Brantly, 2014) or in other words, banking without records. Hawala's money transfer system is a system that goes beyond every state institution, it is completely non-transparent, and enables the complete anonymity of its clients (Bolta, 2010: 429). Because of such characteristics it is easy to link it to the issues of terrorism, although there is no solid evidence of its use for this purpose. "It is certainly the case that a gun dealing with sizes, sources and channels of financing of terrorism establishes as well as the case that every political report, institutional intervention and a journalistic article recounts an ever-suspicious triad consisting of Hawala, e-money and humanitarian associations." (Marieke de Goede, 2006: 234)

The non-profit sector is a fertile soil for the financing of terrorism, and therefore for its development. Due to the high degree of networking of numerous humanitarian organizations, their use of public support, the possibility of spreading terrorist ideology to larger masses, lack of control by state and government bodies, and the use of large amounts of cash. Since they are located outside the government sector and are out of control of the government and the state, they are extremely susceptible to non-governmental manipulations, are less controlled and extremely attractive modus operandi for financing various criminal activities. Even the international body for the prevention of money laundering and terrorist financing, FATF, predicted this correlation as one of the most dangerous for illegal purposes (Pedić, 2010: 144). Financing of terrorism through humanitarian organizations is carried out in two ways. One way is to establish them as religious organizations, while another way is that a certain person who is a member of a terrorist group or their supporter infiltrates into an organization and uses its means for illegal purposes (Gunning, 2008). Organizations often create sort of "front organizations" as formal humanitarian organizations with the real purpose of financing terrorism (Pedić, 2010).

The physical transfer of cash is certainly one of the simplest and safer ways of transferring financial resources for the purpose of easier concealment. One of the most famous terrorist actions financed in the way of cash transfer of funds is the attack on the Marriot hotel in Jakarta in 2003 by a car bomb (Bolta, 2010: 423). Given the increasing and rapidly growing popularity of physical cash transfer, the Final Action Task Force is to declare or report. The recommendations made by this intergovernmental body are complementary to numerous conventions and aim to provide guidelines and frameworks in which national legislation should be implemented in the context of preventing the financing of terrorism. The areas under which recommendations are made are related to:

- The formulation of clear standards on the basis of which national strategies for combating terrorism and money laundering.
- Overseeing the process of implementing the recommendations of the states where they have undertaken to apply them.
- The detection of innovative methods and techniques for money laundering by terrorists
- Monitoring the money transfer system that is performed without system trace -Hawala (FATF Group Recommendations).

FATF member states have a five-year preservation obligation for financial transfers, with special measures in case of detection of suspicious transactions, especially if behind them stands a political exponent.



Terrorists need money and sources of income to survive and function. The logic of combating terrorism financing is therefore simple: if terrorist incursions go away, the terrorist activities to be financed will also be extinguished. (Bures, 2011) The process of financing terrorism leaves traces that allow the monitoring of inflows and outflows of financial revenues for the purpose of revealing terrorist financial networks ... "(US Department of Treasury, 2003)

Obviously, terrorism will not be beaten until the contemporary Caesar's tactics: "divided, so rule" are established, which is not so promising in the capitalist system. Deprivation of protection, network of associates and source of income provides combat opportunity. Due to the current globalization and high degree of terrorist infiltration and networking on and with crucial positions, combat chances are very low. The undefined, insufficient and blurred provisions of various international instruments of this topic are deteriorating in the situation.

The supranational character of the European Union as a special form of organization of states gives legitimacy to the EU institutions for the adoption of acts that are directly applicable in the territory of all member states. The EU Directive 2015/849 has an exceptional significance from the normative perspective for several reasons:

- Emphasizes the importance of risk assessment at three levels - supranational, national and taxpayers.
- Clearly determines the meaning of the "politically exposed person".
- Lowers the limit for cash payments that are subject to special financial-intelligence measures with 15,000€ (limit established by the Third Directive) to 10,000€.

During the year 2016, the EU Action Plan for Strengthening Measures to Combat Money Laundering and Terrorist Financing was adopted. This Action Plan was created on the basis of the FATF Recommendations and the Council of Europe Protocol. In the light of new normative measures, it is particularly important to highlight the changes proposed for the EU Directive 2015/849 which directly relate to the fight against terrorism financing:

- Public access to beneficial ownership information on companies;
- Access on the basis of 'legitimate interest' to beneficial ownership information on trusts and similar legal arrangements;
- Public access upon a written request to beneficial ownership information on trusts that own a company that is not incorporated in the EU; (European Council, 2017)

#### 4. Conclusion

Financing terrorism is a global security issue that requires the synergetic effect of intelligence services and international institutions. The lack of confidence in international relations makes the exchange of information from security services difficult, and in that way reduces the potential to resolve one of the most serious modern security threats. Special attention must be paid to detecting the criminal offense of money laundering through the Hawala system and the abuse of charitable organizations that, due to the nature of their activities, do not arouse suspicion of the existence of abuse in order to obtain the financial resources needed to perform a terrible act. Implementation of directives, standards of recommendations at

different levels with the intensification of interstate cooperation, exchange of intelligence and building mutual trust can open the way for the permanent solution of the problem of financing of terrorism.

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## COMPARATIVE ANALYSES OF LEGAL ASPECTS OF FIGHT AGAINST HUMAN TRAFFICKING AND SMUGGLING OF MIGRANTS IN THE REPUBLIC OF MACEDONIA AND REPUBLIC OF SERBIA

**Abstract:** Trafficking of human beings and smuggling are one of the most serious crimes against humanity and international law. Countries of the Western Balkans are seriously affected, taking into account that criminals are well organized and their networks are in all countries of the region. All countries are considered as countries of final destination, transit countries as well as export countries regarding these two types of crimes. Both, practitioners and theorists recognize trafficking and smuggling as separate crimes, often in combination of both of them (i.e. starting with smuggling and finishing with trafficking).

The recent migrant crisis gives a clear picture of capacities and capabilities of the countries in fight against smuggling in particular, somehow putting aside the fight against human trafficking. However, police and other law enforcement agencies should pay more attention to the fight against the two types of criminality, which often intertwine and negatively affect the overall security situation in the country.

This paper aims to compare legal aspects of fight against human trafficking in the Republic of Macedonia and Republic of Serbia, as two most influenced countries in the Balkans route, in order to find out any strengths and weaknesses of the legislation of these countries.

**Key words:** Trafficking, Human Beings, Smuggling, Migrants;

### 1. Introduction

The migrant crisis affecting the countries of the Western Balkans in 2015-2016 has left some consequences for all countries that were unprepared and with poor capacities to respond to this type of crisis. But it also brought a lot of new experience and built capacities to cope with crisis situations and the risks that migrant waves bring.

Bearing in mind that over a million people have passed through the Balkan route, it is undoubted that all countries cannot deal with existing or future challenges with migrants by themselves and without external support. Every experience is very significant and all experience gained is important, but more important is capacity building and harmonization of procedures for controlling migrant flows. However, in a situation where the Balkan route has been closed and the agencies undertake significant border control activities, more space is opened for criminal groups that have re-activated the smuggling channels. Here is the real challenge for all the countries in the region. To build an appropriate system for finding out, controlling, preventing and suppressing the crime of smuggling migrants. But without proper legal determination of both crimes and without compliance with international protocols and standards, good cooperation within the country is not possible, and

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international cooperation will be made more difficult, which is extremely important for the fight against this type of criminality.

This paper will cover the legal provisions of the criminal legislation of Macedonia and Serbia in order to determine whether they are sufficiently harmonized and whether they support the recognition and fight against this type of criminality especially through bilateral or multilateral cooperation in the region and in Europe.

## **2. Analysis of the criminal offense of trafficking in human beings and smuggling of migrants in the republic of macedonia**

The Republic of Macedonia is characterized by several segments of this crime. First, during the migration crisis in 2015/16, Macedonia was the first country to face migrants after they arrived on Greek soil. The country was left alone to handle the migration transit by a figure of nearly half of the population. Second, the existing legislation allowed only partial combat, and especially prevention against migrant smuggling. Third, the competent authorities (the police, the public prosecutor's office and even the courts) did not have enough experience or sufficient capacity to deal with the frequent execution of this crime. Fourth, as a result of the gradual coordination and enhanced cooperation between the concerned authorities and services, amendments were made to some of the legal provisions, and the state was able to almost completely control the flow of migrants, which were partially or completely protected from smuggling networks, while criminal groups and their channels in that period were cut off in the Republic of Macedonia.

The Criminal Code of the Republic of Macedonia in Chapter 34 foresees Crimes against Humanity and International Law. In that Chapter, beside others there are crimes trafficking in Human Beings and Smuggling of Migrants. But in order to understand the difference between similar but still essentially different crimes, the authors will explain the crimes in Article 418.

### *Founding a slave relationship and transportation of persons in slavery*

#### Article 418

(1) A person who by violating the rules of international law places another in slavery or in some similar relationship, or keeps him under such relationship, buys him, sells him, hands him over to another, or mediates in the buying, selling or handing over of such a person, or instigates another to sell his freedom or the freedom of a person he is keeping or caring for, shall be punished with imprisonment of one to ten years.

(2) A person, who transports persons under a slavery or similar relationship from one country to another, shall be punished with imprisonment of six months to five years.

(3) A person, who commits the crime from items 1 and 2 against a juvenile, shall be punished with imprisonment of at least five years.

The basic article 418 foresees Founding a slave relationship and transportation of persons in slavery. This crime is manifested by violating the rules of international law (accepted International Agreements, Conventions, Declarations, Protocols etc. relating to the protection and promotion of human right) places another in slavery or in some similar relationship, or keeps him under such relationship, buys him, sells him, hands him over to another, or mediates in the buying, selling or handing over of such a person, or instigates another to sell his freedom or the freedom of a person he is keeping or caring for. This article is aimed at refusing criminals from execution or co-perpetration and the persons who would mediate in the transportation of persons in slavery. The lawmaker foresees additional protection for minors, and the perpetrator will be punished more severely for committing this crime against minors.

*Trafficking in Human Beings*(Criminal Code of the Republic of Macedonia, 2004)

Article 418-a

(1) A person who by force, serious threat misleads or uses other forms of coercion, kidnapping, deceit and a abuse of his/her own position or a position of pregnancy, weakness, physical or mental incapability of another person, or by giving or receiving money or other benefits in order to obtain agreement of a person that has control over other person or in any other manner, recruits, transports, transfers, buys, sells, harbors or accepts persons because of exploitation through prostitution or other forms of sexual exploitation, pornography, forced labor or servitude, slavery, forced marriages, forced fertilization, unlawful adoption, or similar relationship or illicit transplantation of human body parts, shall be punished with imprisonment of at least four years”.

(2) A person who destroys or takes away an ID, passport or other documents for identification with aim to commit the crimes set out in paragraph 1 of this article shall be punished with at least 4 years of imprisonment.

(3) A person who uses or enables another person to use sexual services or another type of exploitation from persons for whom he knew or was obliged to know that they were victims of human trafficking shall be punished with imprisonment of 6 months up to 5 years.

(4) If the crime referred to in paragraphs (1), (2) and (3) of this article is committed by an official person while performing his/her duties, he/she shall be sentenced to imprisonment of at least eight years.

(5) The consent of the human trafficking victim in relation to the intent for exploitation, as referred to in paragraph (1), shall not be of any importance regarding the existence of the criminal offence as referred to in paragraph (1).

(6) If the action in this article is committed by a legal entity it shall be fined.

(7) The real estate, the items and means of transport used for committing the crime shall be confiscated.

“Human trafficking is a phenomenon that has been increasing in recent years and has risen to the level of a common problem affecting the society as a whole. Trafficking is not just a crime, it is much more than that, it is organized crime, violation of human rights, denial of man as being, modern slavery.” (Димовски, Тодоровска, & Атанасовска Димишковска, 2010) Although not a basic act, this crime is added to the article which provides Founding a slave relationship and transportation of persons in slavery, trafficking in human beings is much more characteristic than the basic crime, giving a chance to the domestic and international institutions to develop stronger policies for the prevention, detection and proving of this crime. It must be pointed out that this is an extremely difficult Crime against Humanity and International Law which is very difficult to find out and is even more difficult to prove. In certain segments, this crime is similar to the basic crime of Article 418, and especially in the lack of consent of the person who is the victim of the crime for the actions that are being committed against him. However, unlike the previous act, here it is clearly stated the force or the serious threat or other forms of coercion, for the person to be abused for the purpose of prostitution or other forms of sexual exploitation, pornography, forced labor or servitude, slavery, forced marriages, forced fertilization, unlawful adoption, or similar relationship or illicit transplantation of human body parts.

Being aware of the seriousness of this crime, the law enforcement agencies pay special attention to developing policies and strategies for prevention and protection, and in particular for combating of this crime. These are well-organized criminal groups and networks that are often international, which makes the execution of the crime in many countries and even more in different regions in the world. The way of acting of the criminals often contains elements of the criminal offense referred to in Article 418-b, Smuggling of Migrants, especially when it comes to smuggling of persons across the state border. However, there are frequent examples when victims of this crime, initially, voluntarily undertake certain activities that later make them victims. Or, at the beginning the victims agreed to join the network because they were misled, mainly for a better life, higher incomes, etc. Once a person agrees to travel for employment or another offer of engagement abroad, he easily falls into the crime



network and begins harassment for the sake of prostitution or other forms of sexual exploitation, pornography, forced labor or servitude, slavery, forced marriages and other. Police, other state authorities, but also many non-governmental organizations, through enhanced international cooperation, are trying to produce quality information about what young people should pay special attention to when accepting travel abroad for job offers or other type of engagement. The OSCE has prepared a Manual for Human Trafficking and the Media (Lastrada, <https://www.lastrada.org.mk/mainarchive/Priracnik%20MK%20za%20web.pdf>, 2015/16) in which the authors provide extremely important and useful information on trafficking in human beings, about various protocols and conventions related to trafficking in human beings, that is, the prevention, suppression and punishment of human trafficking, and in particular the protection of women and children.

In addition, the Open Gate NGO has issued a Manual for preventive lessons on human trafficking (Димишкова Рајковска, 2007) in which a group of authors present many practical experiences and lessons learned on trafficking in human beings. Particularly important are their indications for the prevention of this type of criminality, but also the practical advice for victims of trafficking in human beings.

In addition to these manuals, useful information can be obtained in the Republic of Macedonia through the following info materials:

- Prevent trafficking; (Lastrada, Спречи ја трговијата со луѓе, 2015)
- Be informed about migration and trafficking; (Vukasovic, 2010)
- Your life is your property; (Lastarada, 2015)
- Trafficking in human beings and labor exploitation;
- Trafficking in Human Beings;
- Right to compensation for victims of trafficking; (Lastrada, 2010)

In addition to the above, the study on migrant smuggling in Greece, Macedonia, Serbia and Hungary, published by the EU is very important and gives us a lot of very useful information's. (Dimitriadi, Petreska, & Simic) This study presents various case studies that address migrant smuggling issues at a very high level, with clear and precise and above all, quality data.

All of the above manuals and brochures aim to access as many young people as possible, to point out the dangers that carry this kind of criminality with them, but also prevent the spread of this socially negative phenomenon.

Regarding International documents, one of the most important is Palermo Protocol from 2000 (Protocol to Prevent, Suppress and Punish Trafficking in Persons Especially Women and Children, supplementing the), which defines that "Trafficking in persons" shall mean the recruitment, transportation, transfer, harboring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs;

The Protocol also recognize the criminalization of Trafficking in Persons (Criminal Code of the Republic of Macedonia, 2004), stated that Each State Party shall adopt such legislative and other measures as may be necessary to establish as criminal offences the conduct set forth in article 3 of this Protocol, when committed intentionally. Each State Party shall also adopt such legislative and other measures as may be necessary to establish as criminal offences: (a) Subject to the basic concepts of its legal system, attempting to commit an offence established in accordance with paragraph 1 of this article; (b) Participating as an accomplice in an offence established in accordance with paragraph 1 of this article; and (c) Organizing or directing other persons to commit an offence established in accordance with paragraph 1 of this article.

Palermo Protocol also protect the victims and their repatriation, but support prevention, information exchange and training, border measures, security and control of documents and legitimacy and validity of documents.

Republic of Macedonia has adopted this Protocol and harmonized domestic rules in 2002, when this crime was adopted in Macedonian Criminal Code.

This crime, as foreseen in the Macedonian legislation, we differentiate:

- Act (what has been done);
- Means (with what it has been done);
- Intention or goal (why it has been done).

Regarding the origin of the perpetrators or victims, we can differentiate:

- Country of origin (recruiting and exportation);
- Transit Country (transport across the border of two or more states);
- Country of Destinations (import and reception).

Criminal perpetrators of this crime can be identified through the various activities they undertake, and they relate to:

- Advertising (for employment, for project activities, for study, etc.);
- Rental space (usually it is a collective housing system, placed in or directly to the place of work);
- Transportation of the person (organization of transportation in a certain part of the route or for the whole trip);
- Communications (with the criminal network, for the purpose of providing transportation, acceptance, accommodation, as well as other crime activities);
- Financial transactions (the perpetrators take care of the total transactions related to the person, purchase, sale, but also transactions with the person and his relatives).

Regarding Smuggling of Migrants, most commonly we talk about:

- Providing illegal entry to another person;
- Crossing at least one state border;
- Achieve financial or material benefit;

Unlike trafficking in human beings, smuggling of migrants is most often with consent of the person who is the victim of the crime. Also, in order for this crime to exist, it is necessary for a person to be smuggled from at least one country to another (often it is smuggled across the territory of several states and even on different continents). Human trafficking can also be done in the territory of a single state. Financial and other benefits is a common element of both crimes.

According to the UN Protocol on Smuggling of Migrants (Nations, 2000), the definition of this crime is as follows: "Smuggling of migrants" shall mean the procurement, in order to obtain, directly or indirectly, a financial or other material benefit, of the illegal entry of a person into a State Party of which the person is not a national or a permanent resident;

In the same article, the protocol also applies to the protection of personal documents, counterfeiting and the use of alien documents. Such protection is also foreseen in the Macedonian legislation, but in other articles that refer to forgery of a public document.

Criminalization (Criminal Code of the Republic of Macedonia, 2004) of this crime, according to the Protocol on Smuggling of Migrants, means that:

1. Each State Party shall adopt such legislative and other measures as may be necessary to establish as criminal offences, when committed intentionally and in order to obtain, directly or indirectly, a financial or other material benefit:

- (a) The smuggling of migrants;
- (b) When committed for the purpose of enabling the smuggling of migrants:
  - (i) Producing a fraudulent travel or identity document;
  - (ii) Procuring, providing or possessing such a document;

(c) Enabling a person who is not a national or a permanent resident to remain in the State concerned without complying with the necessary requirements for legally remaining in the State by the means mentioned in subparagraph (b) of this paragraph or any other illegal means.

2. Each State Party shall also adopt such legislative and other measures as may be necessary to establish as criminal offences:

(a) Subject to the basic concepts of its legal system, attempting to commit an offence established in accordance with paragraph 1 of this article;

(b) Participating as an accomplice in an offence established in accordance with paragraph 1 (a), (b) (i) or (c) of this article and, subject to the basic concepts of its legal system, participating as an accomplice in an offence established in accordance with paragraph 1 (b) (ii) of this article;

(c) Organizing or directing other persons to commit an offence established in accordance with paragraph 1 of this article.

3. Each State Party shall adopt such legislative and other measures as may be necessary to establish as aggravating circumstances to the offences established in accordance with paragraph 1 (a), (b) (i) and (c) of this article and, subject to the basic concepts of its legal system, to the offences established in accordance with paragraph 2 (b) and (c) of this article, circumstances:

(a) That endanger, or are likely to endanger, the lives or safety of the migrants concerned; or

(b) That entail inhuman or degrading treatment, including for exploitation, of such migrants.

4. Nothing in this Protocol shall prevent a State Party from taking measures against a person whose conduct constitutes an offence under its domestic law.

According to Macedonian Criminal Code, Smuggling of Migrants if as follows:

#### *Smuggling of migrants*

##### Article 418-b

(1) One who, using force or serious threat that will attack the life or body, with kidnapping, fraud, out of greed, with misuse of his/her official position or using of the powerlessness of other illegally transfers migrants through the state border, as well as one that produces, purchases or owns fake passport with such intention, shall be sentenced with imprisonment of at least four years.

(2) One that engages, transports, transfers, buys, sells, hides or accepts migrants, shall be sentenced with imprisonment of one to five years.

(3) If during the commitment of the crimes stipulated in the paragraphs 1 and 2 the life or the health of a migrant is endangered, or the migrant is treated especially humiliating or cruelly, or he/she is prevented to use the rights he/she has according to the international law, the stipulator shall be sentenced with imprisonment of at least eight years.

(4) If the crime stipulated in the paragraphs 1 and 2 is committed with a minor, shall be sentenced with imprisonment of at least eight years.

(5) If the crime referred to in paragraphs (1), (2), (3) and (4) of this article is committed by an official person while performing his/her duties, he/she shall be sentenced to imprisonment of at least ten years.

(6) The means and the vehicles used for committing the crime shall be confiscated.

#### *Organization of a group and urging for commitment of the crimes human trafficking, trafficking of juveniles and smuggling of migrants*

##### Article 418-c

(1) One who will organize a group, gang or other association with intention to commit crimes stipulated in the articles 418-a, 418-b and 418-d, shall be sentenced with imprisonment of at least eight years.

(2) One who will become a member of a group, gang or other association stipulated in paragraph 1 or in other way helps the group, gang or association, shall be sentenced with imprisonment of at least one year.

(3) The member of the group stipulated in the paragraph 1 who will disclose the group before he/she commits a crime as its member or on its behalf, shall be pardoned.

(4) One that calls, urges or supports commitment of the crimes stipulated in the articles 418-a, 418-b and 418-d shall be sentenced with imprisonment of one to ten years.

This gives us the right to conclude that in accordance with the international protocols and practices, the Republic of Macedonia accepted provisions from that documents more than 15 years ago and incorporated them into the domestic legislation in a manner that is in accordance with the international law standards, but also corresponds to the Macedonian conditions and circumstances.

### **3. Analysis of the criminal offense of trafficking in human beings and smuggling of migrants in the Republic of Serbia**

Earlier we got acquainted with the most important international protocols on human trafficking and smuggling of migrants. In this section the authors are analyzing the legislation and practices for combating this type of crime in the Republic of Serbia.

Unlike the Republic of Macedonia, Serbia has not a special crime for smuggling of migrants. In the Chapter 31 from the Criminal Code of Serbia (Criminal Code of the Republic of Serbia, 2013) the Offences against public peace and order, is foreseen as Illegal Crossing of State Border and Human Trafficking (Criminal Code of the Republic of Serbia, 2013). In Macedonia, similar crimes are foreseen in the Chapter of crimes against humanity and international law. Additionally, the offense has all, or most of the elements of Smuggling of Migrants, but in Serbia they have chosen this approach. But according to the criminal code in the same article there is a provision that refers to the illegal crossing of the state border. According to the authors, these crimes are not necessary to be in a one criminal act. For example, Macedonian legislation distinguishes them as two separate offenses. Illegal crossing of the state border, assistance, and other criminal activities are part of a completely different crime. Here, it is a combination of the two parts, in which it remains unclear what are the forms, the preparatory actions, the manner of execution, etc.

#### **Article 350**

(1) Whoever without a required permission crosses or attempts to cross the border of Serbia, under arms or by use of force, shall be punished by imprisonment up to one year.

(2) Whoever enables another illegal crossing of the Serbian border or illegal sojourn or transit through Serbia with intent to acquire a benefit for himself or another shall be punished by imprisonment of six months to five years.

(3) If the offence specified in paragraph 2 of this Article is committed by a group, by a abuse of authority or in a manner endangering the lives and health of persons whose illicit crossing of the Serbia's border, sojourn or transit is being facilitated or if a larger number of persons is being smuggled the perpetrator shall be punished by imprisonment from one to ten years.

(4) If the offence referred to in paragraph 2 hereof has been perpetrated by an organized crime group, the offender shall be punished with imprisonment of three to twelve years.

(5) The means intended or used for commission of the offence specified in paragraphs 1 through 3 of this Article shall be impounded.

This article, in the first paragraph, particularly refers to the illegal crossing of the state border. The second paragraph, like all others, has tangible links with the smuggling of migrants, but it remains unclear why the legislator has decided to place them in the head of acts against public order and peace. Especially because in these acts, apart from the organized group, which almost without exception

appears in the modern world, many international protocols are endangered and human rights and rights are violated.

The condition further complicates the Chapter 34 Criminal offences against Humanity and other rights guaranteed by International law. In this chapter there is an article 388 Human Trafficking. In this crime, elements of smuggling of migrants can be recognized, but the provisions partially deviate from the international practices and standards, including the UN protocols.

#### Article 388

(1) Whoever by force or threat, deception or maintaining deception, a abuse of authority, trust, dependency relationship, difficult circumstances of another, retaining identity papers or by giving or accepting money or other benefit, recruits, transports, transfers, sells, buys, acts as intermediary in sale, hides or holds another person with intent to exploit such person's labour, forced labour, commission of offences, prostitution, mendacity, pornography, removal of organs or body parts or service in armed conflicts, shall be punished by imprisonment of three to twelve years.

(2) When the offence specified in paragraph 1 of this Article is committed against a minor, the offender shall be punished by the penalty prescribed for that offence even if there was no use of force, threat or any of the other mentioned methods of perpetration.

(3) If the offence specified in paragraph 1 of this Article is committed against a minor, the offender shall be punished by imprisonment of minimum five years.

(4) If the offence referred to in paras 1 and 2 of this article resulted in severe bodily harm, the perpetrator shall be punished with imprisonment from five to fifteen years, and in case of severe bodily harm to a juvenile person due to the offence referred to in para 3, the perpetrator shall be punished with minimum five years' imprisonment.

(5) If the offence specified in paragraphs 1 and 3 of this Article resulted in death of one or more persons, the offender shall be punished by imprisonment of minimum ten years.

(6) Whoever habitually engages in offences specified in paragraphs 1 and 3 of this Article or if the offence is committed by a group, shall be punished by imprisonment of minimum five years.

(7) If the offence referred to in paragraphs 1 through 3 hereof has been perpetrated by an organized crime group, the offender shall be punished with imprisonment of minimum ten years.

(8) Whoever knows or should have known that a person is a victim of human trafficking and abuses their position or allows another to abuse their position for the purpose of exploitation referred to in paragraph 1 hereof shall be punished with imprisonment of six months to five years.

(9) If the offence referred to in paragraph 8 hereof has been committed against a person whom the offender knows or should have known is a minor, the offender shall be punished with imprisonment of one year to eight years.

(10) Person's consent to be exploited or held in slavery or servitude referred to in paragraph 1 hereof shall not prejudice the existence of the criminal offence stipulated under paragraphs 1, 2, and 6 hereof.

This crime deals with trafficking in human beings and fully appropriately elaborates the overall substance, activities, but also the various forms and forms of trafficking in human beings. Unlike the Macedonian Criminal Code, this article additionally protects minors, even if the crime is committed without the use of force or coercion. But, on the other hand, the Macedonian legislation provides additional protection against confiscation of personal documents, passports or other documents, in connection with the commission of the crime of trafficking in human beings.

From the made analysis of the available anti-trafficking materials, it can be concluded that in Serbia there are enough available manuals and other publications related to this crime. And even to conclude that they are much more than in the Republic of Macedonia. So, it's enough to mention the following:

- Human Trafficking–Manual for Generation Education;( Anđelković , et al., Trgovina ljudima : priručnik za vršnjačku edukaciju : sa analizom dobrih praksi i preventivno-edukativnih radionica, 2008)



- Human Trafficking – Manual for lawyers; (Anđelković, et al., Trafficking in human beings- Manual for lawyers, 2012)
- Human Trafficking– Good Practices – Manual for Institutions;(Alempijević , et al., 2010)
- Human Trafficking – Handbook for Journalists;(Alempijević , et al., 2010)

In all manuals, the problem of trafficking in human beings is addressed in a very simple and acceptable way, which is adapted to all profiles and all generations. It is particularly worthwhile to point out that special attention is paid to the victims and to activities that various state bodies, but also NGOs, have in order to protect the dignity of the individual, regardless of whether it is a victim of trafficking in human beings or smuggling of migrants.

#### 4. Conclusion

Having in mind the circumstances after the migrant crisis from 2014-16, and the data that speak about the re-strengthening of criminal networks for human trafficking and smuggling of migrants, it is necessary to give strong support to the legislators to harmonize and adapt the necessary provisions in order to enable a more intensive fight against this type of criminality.

From the analysis we can conclude that both the Republic of Serbia and the Republic of Macedonia have legally established possibilities for prosecuting the perpetrators, that they are partially or fully harmonized with the UN Protocols, and that space is left for the development of international cooperation.

However, it is necessary to conclude that the legal acts are not fully harmonized, and that there is still a dispute over the treatment of both acts of trafficking and migrant smuggling. This especially in cases where there is a combination of the two parts. The UN Protocols foresee one, the Criminal Code of the Republic of Macedonia something else, and the Criminal Code of the Republic of Serbia something third. If we agree that both countries and all countries on the Balkan route have a common problem - migrants coming from the east or the countries of Africa, it is necessary to bring the provisions, especially those that will allow recognition of this type of criminality on a simplified way and its processing to the competent authorities.

The necessary training should not be omitted anyway. Although almost two years have elapsed since the last (large) refugee wave, the impression is that both countries do not invest heavily in training their officers nor develop new and modern tools to help victims. Up to the moment, the NGOs, especially international non-governmental organizations have a strong influence in both crimes, regardless of whether they are victims of trafficking in human beings or smuggling of migrants, especially about helping them.

As well as the criminality itself, international co-operation can not be maintained only by the two countries. Both Serbia and Macedonia are on the Balkan route and it is very important to encourage the strengthening of cooperation between all countries in the region and in particular the exchange of information. "Regarding the International cooperation between the countries is still limited, especially between Greece and the Republic of Macedonia (though this is likely a product of foreign policy relations) but there is also an absence of systematic exchange of information along the entire route, i.e. Greece – the Former Yugoslav Republic of Macedonia – Serbia – Hungary, although communication among the various countries along the route does vary. Cooperation in combating migrant smuggling along the Western Balkan route is the most intensive with Serbia, in particular with Serbian police forces. Other countries Hungary cooperates with effectively are some of the destination countries of migration, mainly Austria and Germany and Greece in the context of the EU. Nonetheless, with the exception of the absence of a cooperative institutionalised framework between Greece and the Former Yugoslav Republic of Macedonia, states appear to make a considerable effort in cooperating directly or indirectly (through forums) in exchanging information." (Nations, 2000)

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## SECURITY AND ECONOMIC ASPECTS OF THE MIGRATION CRISIS IN SERBIA\*

**Abstract:** The research topic of this paper is security and economic aspects of the migration crisis in Serbia. The main purpose of this paper is determining not only negative, but also possibly positive consequences brought about by the migration crisis. A special emphasis will be set on economy and security, given the fact that these two fields have been hit to the greatest extent by the migration crisis. It is well known that, regarding security, migrations might generate a rise in extremism and terrorism, as well as a heightened possibility of fomenting ethnic tensions in the unstable region of the Balkans and in Serbia. With regard to the financial context, it is possible that Serbia might get to carry the heavy burden of the migration crisis if illegal migrants should start retuning to Serbia from other countries, which would definitely have a negative impact on Serbia's economy and the standards of its' citizens. It is evident that the European Union has not prepared itself efficiently for this type of crisis, which is best seen through its numerous shortcomings that have, unfortunately, affected Serbia due to its location in this key transit zone.

**Keywords:** migration crisis, Serbia, security, economic aspects, EU.

### 1. Introduction

Serbia has, even though perceived only as a transit zone, has carried a significant burden of the contemporary migrations. People have, since ancient times, during their pursuit of happiness and better living conditions, also been changing their places of residence. Apart from representing the ever-lasting iconic pursuit of happiness, migrations have also been conditioned by running away from troubles embodied in wars, natural disasters or enemies. Even Serbs themselves have, as a "refugee nation", have been running for centuries from their ancestral homes, only to return again when the troubling times pass. It might be said that Crnjanski depicted the tragic refugee odyssey of our people in his "Migrations", when he said that migrations are a part of the Serbian people's destiny.<sup>3</sup>

The human race has, in fact, by moving from one place to another, been always searching for the most suitable refuge, which is a common phenomenon among humans, as well as among animals. It is precisely for this reason that migrations might be seen as our inevitability. The problem of contemporary migrations, that is, the new "migration of people", as seen by many, lays in the fact that they are mostly of a compulsive character, and the migrations predisposed by the war in the Syrian and Iraqi region represent a special threat for Europe, our region, and above all, Serbia. In simple words, conflicts in Syria and Iraq have created one of the most dangerous terrorist organizations – "The Islamic State", which has carried out multiple actions throughout Europe.

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<sup>3</sup> Most of the times, this fate was predisposed by running from conquerors and their ill-doings, but also by the pursuit of the promise land that would offer the safe haven.

According to data provided by the UNHCR, nowadays there is 60 million of forcibly displaced people, and to many of them, Serbia represents a pitstop on their way to their final destination (N1 BiH, 2015). The desired destination of all people running from the conflicts currently raging throughout the Middle Eastern and North African region are, above all, Western European countries. However, Serbia represents a significant transit zone within the Balkan route, and thus bears a certain responsibility, but as well significant security challenges, risks and threats. It is considered that illegal journey of one migrant from the problematic Middle Eastern region to Germany costs between 10.000 and 20.000 euros (Simeunović, 2017).

## 2. Security and Economic Aspects of the Migration Crisis in Serbia

It is evident that contemporary migrations bring about several security problems. First of all, there is a threat in the form of arrival of potential jihadis.<sup>4</sup> The second problem is the possibility of occurrence of regional conflicts that might be motivated by retention of migrants on the borders of ex-Yugoslav republics. This possibility was also pointed by the German Chancellor Angela Merkel, by stating in 2015 that there is a chance of an outbreak of war in the Balkans if Germany closes its border with Austria. This is best depicted in the short-term “customs war” between Serbia and Croatia, during which Croatia closed its borders in Batrovcı in September 2015, followed by the response of Serbia in form of closing all border crossings with Croatia. This migration crisis has unequivocally shown how easy it is to awaken “the spirits of the past” in the unstable Balkan region, which might have an impact on regional security.

The range of the despair and the wish of migrants to reach the grounds of the EU is best explained by the case of one Pakistani national trying to cross the border from Serbia into the EU no less than 30 times (RTS, 2017). Moreover, one should not forget the threats of organized crime in the form of migrant smuggling, human trafficking, etc. Europol states that criminal networks involved in migrant smuggling are estimated to have had a turnover of between EUR 3-6 billion in 2015 alone (Europol, 2016). Children represent a specially endangered group, as seen from the data provided by Europol, stating that more than 10.000 migrant children have gone missing in Europe during the last three years, and it is assumed that these children have most possibly become victims of human traffickers.

There were not any significant incidents in Serbia, given the fact that our country has accepted migrants with open arms, but, according to Sandžak PRESS (2015) there are records of certain migrants refusing to accept aid from the Red Cross (since the aid was branded with the symbol of Christianity, that is, with a cross), and also that a few extreme migrants conducted an act of vandalism on the tombstones in Serbia, given the fact that they had crosses on them.

In the context of security risks, special attention should be given to a possible escalation of the extreme right-wing violence in Serbia that might be triggered by the growth of Islamist extremism. Judging by the trends in Europe, all countries that have carried the burden of the migration crisis have as well witnessed the growth of xenophobia, resulting in intensification of right-wing extremism. For now, the extreme right-wing in Serbia is under control, but we may assume for a fact that, with the eventual growth of

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<sup>4</sup> According to assessments of security agencies, among the existing migrants, up to 10% of them might represent members of potential Islamic-motivated extremists. See more in: Đorić, M. (2016) Uticaj migrantske krize na razvoj desničarskog ekstremizma u Evropi. In proceedings *Migranti na raskršću ili bespuću zemlje Srbije*, ed. Jovan Ćirić, Branislava Knežević (p. 125-137). Institute for Comparative Law; Institute for Criminological and Sociological Research; Regional representation of the Russian humanitarian mission in the Balkans, Belgrade.

Islamic extremism, the extreme right-wing would give a response to it in the form of violent actions with problematic migrants as a potential target.<sup>5</sup>

Some theoreticians observing the problem solely from the economic standpoint believe that migrations, apart from creating certain security, demographic and cultural problems, may also generate a range of benefits to the European countries (Penava, 2011). This, above all, refers to the possibility of "rejuvenation" of the European work force by the arrival of migrants of Arabic origin, which is to some point logical, given the fact that the average age of a European amounts to 42,4 years.<sup>6</sup> By accepting migrants, Europe has rejuvenated not only its work force, but also its military conscripts, and thus migrations in this case might have a stimulating impact on European security and commerce. The weakness of such theories lay in the fact that such complex social phenomena, such as contemporary migrations, cannot be exclusively observed from one point of view, that is, in this case, and economic point of view. The greater challenge for Europe will be the problem of integration, demography, ethnic and religious tensions, etc.

According to the Statistical Office of the Republic of Serbia (2017), in comparison to Europe, Serbia has a similar average population age (42,9). This would mean that our population (as well as the European population), is getting older and older, and that it is currently in the state of depopulation (N1 Zagreb, 2017).<sup>7</sup> Such facts point towards potential demographic and economic problems. Thus, unlike some European countries, Serbia does not have any economic interest in accepting migrants. It is a fact that the biggest benefit among all the countries goes to Germany, which has, even though accepting the biggest burden of the migration crisis, opened up more than a million new jobs, all thanks to the new-coming population.

Even though Serbia practiced an open-arms policy towards migrants like Germany did, in the economic sense, our country certainly cannot match Germany's efforts. Having this in mind, Serbia could not have any economic benefits from accepting migrants, since Serbia itself is currently in an unfavourable economic situation, given its standards and unemployment rate. According to the Statistical Office of the Republic of Serbia (n.d.), average net earnings in Serbia (without taxes and contributions) in December 2017 amounted to 54.344 RSD, while the unemployment rate in the third quarter of 2017 amounted to 13,5 % (Statistical Office of the Republic of Serbia, n.d.). Such statistical data clearly shows that the arrival of migrants represents only an additional economic burden to Serbia. Besides, one should have in mind that (due to poverty), migrants might get criminalized easily, which would represent not only an economic, but also a security problem for Serbia.

According to data provided by the Ministry of Labour of the Republic of Serbia, the state daily allocates about EUR 15.000 for accepting migrants, meaning that each migrant costs Serbia eight euros on a daily basis. Apart from budget funds, there are also donations, which in total, on a monthly basis, amount to EUR 450.000, that is, a round 5,5 million euros annually (Telesković, 2015). These economic consequences of migration might eventually be mitigated by foreign donations arriving primarily from the EU, but this is a short-term solution. The EU has, from the beginning of the migration crisis until today, donated to Serbia over 20,1 million of euros in humanitarian aid (Europa.rs, 2017).

<sup>5</sup> See more in: Đorić, M. (2017). Uticaj savremenih migracija na razvoj ekstremizma u Nemačkoj. *Kultura bezbednosti: migrantske krize, stanje, perspektive, rizici*, ed. Ljubiša Despotović, Aleksandar Gajić, Kultura polisa, special edition (2), 201-220

<sup>6</sup> In Germany, according to Eurostat statistics, 13,2 % of the population is young, making it the lowest average in Europe. See more in: [http://ec.europa.eu/eurostat/statistics-explained/index.php/Population\\_structure\\_and\\_ageing](http://ec.europa.eu/eurostat/statistics-explained/index.php/Population_structure_and_ageing), (11.02.2017).

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### 3. Conclusion

In order for Serbia to protect its national interests, it is necessary that the contemporary migration crisis is observed realistically, and thus, a special emphasis should be put on security and economic aspects of the migration crisis. Serbia is currently not a "dream destination" for migrants, but it might be expected that the situation will drastically change with the acceptance of our country to the EU, which might represent an additional challenge. In order to prevent eventual security problems, our country should urgently start the process of integrating migrants who have decided to seek asylum in Serbia. Moreover, it would be suitable if Serbia would create a more coherent mechanism for following and controlling the migration movements. Regulating entrance, as well as the stay of foreign nationals is of an essential importance, as well as the integrated management of borders. A practical solution for reintegration of returnees on the principle of readmission should be well accepted. Given the fact that Serbia has applied for the EU membership, it would be of a great significance to conduct harmonization of the national policy regarding asylum, migration and the visa regime with the EU policy.

Serbia should insist on the permanent help of the EU and other international donors, since it is not capable of independently bearing the consequences of the migration crisis. Moreover, the modern migration crisis is in many ways the consequence of conflicts in Syria and Iraq, which were definitely not caused by Serbia. Thus, the responsibility should be carried by all international factors that were in any way involved in the conflicts currently raging throughout the Middle East and North Africa.

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## **A NEW SECURITY REALITY**

**Abstract:** Security was and remains the key and dominant area occupied by the countries of the world and the United Nations Organization. The fact is, historically, that the greatest influence on the state and processes in international relations has great powers. The status of force in contemporary international relations, in addition to the United States, is increasingly taking Russia, China and the European Union. In the second decade of the 21st century, those forces, de iure and de facto, have established their strategies, which they implement in practice. By analyzing these strategies, implicitly, we can come to the character of a new security reality. This reality is reflected in: 1) identifying global challenges and key threats to security, 2) determining one's own interests and strategic goals, and 3) the way to realize national interests and goals

**Key words:** Big power, Strategy, New Security Reality.

### **1. Introduction**

In the qualification of international relations, usually, an interest period is chosen first, which is disregarded by characteristic events with global consequences, and then the character of these relations is closer. The end of the Cold War in the last decade of the last century, of course, is a historical fact that can be taken as the starting point for the process of creating a new world order, or - a new security reality.

Security in international relations, in spite of the process of their globalization, focuses on the state, with the deepening and extension of the concept of security. The suppression of the concept of security has a direction upward and downward. It extends upwardly to regional and global, or single-name - international security. Deepening downward moves through groups to an individual - human security. Security enhancement also implies other levels (sectors) other than military, including political, economic, social and ecological security.

The fact is that the greatest influence is on the world's processes, and therefore on security, of great powers. Although there are different methods of measuring power and influence, in modern international relations, Russia, China and the European Union (EU) are under great forces, in addition to the United States. These forces have the greatest impact on the state of world security in the post-Cold War period. This impact is based on one's own interests, and it is manifested in two ways: 1) direct impact on other countries, and 2) the impact on the UN. In addition to the direct impact of these forces, the influence of large international corporations that have their base in these countries (USA, Russia and China) and individual EU members is evident. On the third page, which must be taken into account, is also the influence of individuals, whether they come from the sphere of criticism (the presidents of states) or whether they are at the head of powerful corporations (economics).

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From the mentioned starting point - the demolition of the Berlin Wall, to date, conditional state and processes in international relations, especially from the security aspect, can be placed in three periods: 1) from 1990 to 2009, and 2) from 2009 to 2016 and 3) period after 2016.

## 2. Key aspects of security in the period 1990-2009.

After the demolition of the Berlin Wall (1989), as a symbol of the end of the Cold War, there are significant integration and disintegration processes in the area of Eurasia, among which are: 1) the unification of Germany (1990), 2) the dissolution of the Warsaw Pact (1991); 3) the dissolution of the USSR (1991); 4) breaking the SFR Yugoslavia (1991-2006 -?); 5) NATO's survival and enlargement, and 6) the formation and enlargement of the EU. The first three of these processes are completed, while the other three processes are ongoing. Namely, the dissolution of the SFRY has not been completed in Serbia (Kosovo and Metohija), while the enlargement of NATO and the EU primarily focuses on the Western Balkans, that is, the countries of the region that have not yet become members of the said integration.

In the first decade after the Cold War, the West became the first (US and Western Europe). The United States, through NATO, is developing a number of peace projects and the one independent state of central and Eastern Europe joining the Alliance. The European Union was formed in 1992 (Maastricht) and, following an accelerated membership procedure, it received Austria, Finland and Sweden (1995). Russia is in a difficult situation after the dissolution of the VU and, in particular, after the dissolution of the USSR, deals with consolidation issues, not confronting the West. China uses West-East relations and strengthens its economic impact. Last century ends with the demonstration of the NATO force in FR Yugoslavia, precisely on the 50th anniversary of the existence of the Alliance (1999). Evidently, the US has the dominant influence on international relations, and the last decade of the last century was characterized by the unipolarity of international relations.

In the first decade of this century, several events and world processes announce the beginning of the restructuring of international relations. **Firstly**, terrorist acts in New York and Washington (2001) aroused the inviolability and untouchability of the United States. **Secondly**, the EU, following the expansion of NATO, creates a "boom" in its own enlargement, with the admission of 10 new members (2004). **Thirdly**, a global financial crisis of a global size (2008) begins. **Fourthly**, in such circumstances, Russia is returning to the world scene by the short-lived war in Georgia (2008).

After the terrorist attacks on the United States (2001), America has adopted two "war" national security strategies (Bush younger), trying to preserve a leadership position in international relations. Drastic account of these strategies is felt by Iraq, starting from 2001, to the arrest and liquidation of Saddam Hussein (2006). The EU uses the "run-up" of the last decade of the 20th century and the admission of 10 new members (2004), building the road to a unified Union (a failed attempt to disassociate itself from the influence of the US, prim. Author), for which the Constitution is being prepared. However, the idea of the Constitution of the Union collapsed in 2005, and the EU, in such conditions and at the beginning of the financial crisis, is holding a summit in Lisbon (2007), resulting in the Lisbon Treaty, ratified in 2009. Russia, after consolidation in the last decade of the last century, oriented to the power of natural resources, new strategic partnerships and strong armed forces, war in Georgia (2008) announces a return to the world scene. Under such conditions, and especially during a strong financial crisis, Russia is making the first national security strategy (2009). The financial crisis hit all countries of the world, but the most elusive in these conditions is China, which strengthens its position globally. A special dimension to international relations is the economic integration of BRICS (Brazil, Russia, India, China and South Africa), formed in 2008, as a significant contingent in the developed West (US-EU). The first decade of this century is the beginning of the disruption of American unipolarity and the establishment of multipolarity in international relations.

### 3. Key aspects of security in the period 2009 – 2016.

For the situation and processes in international relations, especially in the area of Eurasia, the period 2009-2016 is extremely important years. The key processes of global impact in this period are: 1) the financial crisis encompasses the whole world; 2) the war fare in the North of Africa ("African Spring"), which culminates in Syria; 3) mass migration of the population from war-affected areas; 4) the conflict between Ukraine and Russia and the stalling of relationship West- Russia; 5) announcement of a Chinese one-century strategy, known as "One Belt-One Way"; 6) the UK referendum on leaving the EU; 7) The Union adopts the *Global Strategy for a Common Foreign and Security Policy*; and 8) Donald Trump wins the US in the presidential election.

The financial crisis, which began in the United States, as a "domino effect", has expanded to the whole world, and is particularly characteristic in some EU member states. The Union is making significant efforts to consolidate its financial situation, mainly in Greece, but also in some other members. The difficult financial situation in the EU is the first sign of one of the most difficult periods of the Union, which will make it more difficult for other security processes.

The "African spring" begins in Morocco in 2011 and spreads eastward, with increasing intensity, to culminating in Syria in 2014. The totalitarian regimes in African countries, led by European NATO members, are heavily guarded by the US, in essence, without resolving the situation in those countries and the region, but will greatly complicate international relations. Namely, in the territory of Syria, the interests of the West and Russia, and the countries of the region that NATO members are confronted Saudi Arabia, Iraq, Israel). The war in northern Africa, especially in Syria, has caused a strong terrorist organization (ISIL) and has led to millions of population migrations. Migration of the population with war affected areas, above all, is directed towards the most developed EU members. Thus, in 2015 and 2016, there is a strong earthquake in the Union caused by the migration crisis, which is further exacerbated by terrorist acts in some member states (France, Great Britain, and the Netherlands). In the last few years, the Union has been heavily burdened with illegal migration (Table 1), which are further burdened by migrant waves with the war-torn areas of Africa and the Middle East.

Table 1. *Illegal migration to EU*

Indicator	2008	2009	2010 (assessment)	2011	2012	2013	2014
Illegal crossing of EU borders (outside border crossings)	159.881	104.599	104.051	140.980	124.437	107.364	283.532
Illegal residence on the territory of the EU	441.273	412.275	353.077	158.944	344.928	345.098	441.780
Revealed helpers	9.884	9.171	8.629	6.917	7.662	7.252	10.134
Return decisions				231.885	269.949	224.305	252.003
Productive return				149.445	158.915	160.418	161.309

Source: Frontex, 2015

Under conditions of increasing pressures of mass migration to EU member states, obviously, the Union did not manage, and its established border protection mechanisms or efforts to determine the new strategy towards migration have not yielded results. The EU has been shaken to the point that the high office for foreign affairs and security policy, Federica Mogherini, said the migrant crisis could lead to the break-up of the EU. [http://www.newsweek.rs/serbia/55720-migranti-su-test-za-evropu-ali-i-balkan-autor-tekst-mogherini-hana-i-sefcovica.html]. The Union is struggling to determine quotas for individual countries on admission of immigrants, which is strongly opposed by Poland, the Czech Republic and Hungary, leading



to the launching of a mechanism for "punishing" those countries before the European Court of Justice. This process is in progress. [<https://www.blic.rs/vesti/svet/evropska-komisija-tuzila-cesku-poljsku-i-madarsku/sbzyqqn>]. Directly and indirectly in connection with the migration crisis in the EU, there are also intensified terrorist attacks in some of its members (Table 2).

Table 2. *Terrorist attacks in some of members of EU 2004-2017. year*

No	Place & time	Object of attacks	Executive	Consequences
1.	Madrid, March 2004.	Metro	Islamic bombers	191 people were killed and about 1,500 wounded
2.	London, July 2005	Metro	4 Muslims with U K passports	56 people killed, about 700 wounded
3.	Brussels, May 2014	Museum	French Muslim	4 persons were killed
4.	Paris, January 2015	Journal place	Al -Qaeda	17 people were killed
5.	Copenhagen, February 2015	Pub	A young Arab man	2 persons were killed
6.	Paris, November 2015	Restaurants	Member of ISIL	130 persons were killed, some hundreds wounded
7.	Brussels, March 2016	Airport	Islamic assassin	32 person were killed
8.	Nica, July 2016	Street (by truck)	ISIL	86 persons were killed
9.	Berlin, December 2016	Fair	ISIL	12 persons were killed
10.	Paris, February – March 2017	Airport and museum	Prevented terrorist act	2 assassin were killed
11.	London, March 2017	Bridge in center of London		5 persons were killed
12.	Stockholm, April 2017	Shopping center	Uzbek	5 persons were killed 15 were wounded
13.	Manchester, May 2017	Concert Hall		22 persons were killed, a 59 were wounded

Source: author

The conditions in which the Union found itself, and especially the financial crisis and disagreements over the way of resolving the migrant crisis, lead to a referendum in the UK on the way out of the EU (June 23, 2016). Most Britons gave a positive attitude to abandoning the EU, leading to new problems that the Union is facing for the first time since its inception. The reasons for and against Brexit, according to some studies, are given in Table 3.

Table 3. *Frget and against the BREXIT*

No	REASON	FOR BREXIT	AGAINST BREXIT
1.	<b>Immigration</b>	The country needs to regain control over its borders in order to limit immigration from the EU in order to reduce social spending, relieve public services and preserve jobs for the British. In 2015, the country recorded a record inflow of immigrants, as many as 336,000, out of which 180,000 were from other EU member states. In the period from 2004 to 2015, there were three million people in the UK, according to the Observatory for Migration Report. This is connected with the entry of Poland, Romania and Hungary into the EU, as well as the economic crisis in Italy and Spain, which forced their citizens to "look for happiness" on the British coasts. Justice Minister Michael Gough, the supporter of Brexit, believes that more than five million people could move to the country in 15 years if they stay in the European Union and expand to new members.	Supporters of the UK's residency in the EU point out, proving to the research, that immigrants more contribute to the country in a tax way than it hurts, primarily because it is a young population. Migrants from other EU Member States are paying 34% more to the budget than they receive from it, according to a 2013 survey by the Center for Research and Analysis of Migration.
2.	<b>Economy and trade</b>	Exiting the EU would mean that Britain does not have to pay any more to the European budget. Great Britain is the third net contributor to the EU budget after Germany and France. In the period from 2010 to 2014, the European Treasury paid on average 9.23 billion euros more than it received. NO, on the other hand, has the right to a rebate, which was won by Margaret Thatcher in 1984. Without this refund, in 2015, instead of the 12.9 billion pounds in the European budget, London would have to pay 17.8 billion, according to the British Parliament's estimates. In return, however, it received nearly six billion pounds of subsidies. Brexit would allow British GDP to grow from 0.6 to 1.6 percent by 2030, according to the most optimistic forecasts of the Open Europe Institute. Britain could preserve its trade relations with the EU through a free trade agreement, such as Switzerland and Norway.	The EU is Britain's first economic partner with which it made 44 percent of its exports in 2005 and 53 percent of imports. According to the Center for European Reform, EU accession increased Britain's exports by 55 percent. The government points out that three million jobs are linked to trade with the EU. According to the Open Europe Institute, Brexit could cause a GDP decline of 0.8 to 2.2 percent. Without access to a common European market, Great Britain would lose part of foreign direct investment, which in large part (48%) comes from the EU (496 billion pounds in 2014). In order to preserve access to the common market, under the same conditions as Switzerland and Norway, Britain should participate in the financing of various European programs.
3.	<b>Regulations</b>	Brussels imposes too much regulation and bureaucracy, which economy costs a lot. According to the Open Europe Institute, the cost of the 100 most problematic regulations is 33.3 billion pounds a year.	Since the EU would continue to be the main economic partner, the UK should continue to tighten European regulations, and would not have the right to participate in the decision-making process.
4.	<b>Sovereignty</b>	Britain would remain a influential country, a nuclear power, a NATO member and a UN Security Council.	Due to leaving the EU, Britain would lose its influence in the world, and the prospects for a new Scottish independence referendum, which wants to stay in the EU

Source: <http://www.telegraf.rs/vesti/2208668-izlazak-iz-eu-sve-sto-bi-trebalo-da-znate-o-britanskom-referendumu>

After a brief war in Georgia, Russia in 2009 issued its first National Security Strategy, timed by 2020. In this strategy, among other things, Russia: 1) considers NATO a key threat to its own security, and 2) makes it clear that it will use all means to protect its own interests and defend its allies. In this respect, Russia, in addition to natural resources and strategic partnerships within BRICS, strongly strengthens the Organization of the Collective Security Treaty (SCO) and the Shanghai Cooperation Agreement (SOS). With unambiguously strong armed forces, Russia is more intensively engaged in some conflicts outside its borders, primarily in Syria and Ukraine.

It is difficult to define the conflict between Russia and Ukraine, but it can be concluded that this is a classic conflict between the irreconcilable interests of these countries. On the one hand, Ukraine, which after the breakup of the USSR proclaimed military neutrality, is changing its course and striving for NATO membership. This is strongly opposed by the Russian population, which is numerous in Ukraine, with declarative and substantial efforts for autonomy and separation from Ukraine. This act succeeds in the Crimea, which declares independence from Ukraine and joins Russia. On the other hand, Russia is vigorously opposed to Ukraine's entry into NATO and, from this point of view, logically accepts the Crimea as its part, and supports some parts of Ukraine (Donetsk) in its own autonomy. Thus, there is a conflict between Ukraine and Russia, which the west (the United States, first of all) regards as direct interference by Russia and introduces sanctions. Later in the introduction of sanctions, Russia joined the EU. Thus, the "new cold war" begins in the West-Russia relationship.

China (President Si Jinping) in 2013 announces its strategy for the next century, known as "One Belt - One Way". [Forca, 2017]. In the conditions of globalization and neoliberalism imposed by the United States and the United Kingdom, China was the most profitable. Its economy grows stronger than the economy of other great powers. Accordingly, China was ready to face the global financial crisis and engage more strongly globally. President of China Si Jinping, in 2013, announces a new startup for the next century: One belt-one way. Winning at the World Economic Summit in Davos, Switzerland, at the beginning of 2017, Xinping said: (1) global economy is the reality of the modern world, whether it's like it or not (Message to US President Trump), (2) protectionism is harmful, (3) China believes that migration and the global economic crisis are the result of a race for profit, not a product of globalization, and (4) China invests hundreds of billions of dollars in its economic development, and "The new Silk Road," but is ready to open its foreign investment borders, with an import plan of about \$ 8 trillion and about \$ 600 billion of foreign investment. [Forca, Sekulovic, 2017]. Thus, China is entering the economic competition globally. On the other hand, regionally, China is focused on protecting its own interests in the South China Sea (Figure 1).

Figure 1. Asian meridian with Malaka strait

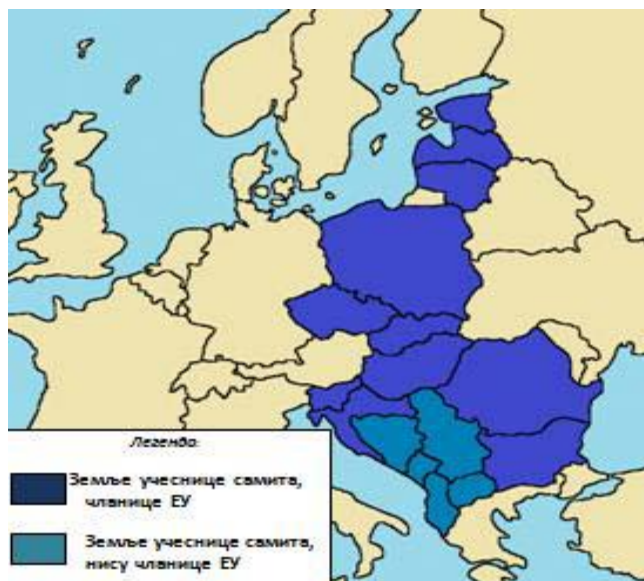


Source: Forca, 2017

China's interests in the South China Sea are directly related to the position of Taiwan, which China regards as its territory, while Western countries, led by the United States, support its independence. However, China's interests in that part of the world are directly related to the control of the Malaka Strait, through which 18% of the world's oil trade passes, about 70% of the total Chinese imports of oil and about 35% of the world's total trade [Forca, 2017].

A special aspect of the strategy One belt-one way (New Silk Road) is China's 16 + 1 initiative on economic co-operation with countries in Central and Eastern Europe (Figure 2)

Figure 2. *China + 16*



Source: <http://www.politika.rs/scc/clanak/304257/> Premijeri-16-evropskih-drzava-i-Kine-u-Beogradu,

At the beginning of the second decade of the 21st century, China established a specific format of cooperation "China + 16", pointing out the importance of the countries of Central and Eastern Europe. This format operationalizes the cooperation of the People's Republic of China with Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Hungary, Latvia, Lithuania, Estonia, Macedonia, Montenegro, Poland, Romania, Serbia, Slovakia and Slovenia. Starting from the Greek port of Piraeus, which is now owned by China, the Athens - Skopje - Belgrade - Budapest route is proving to be the fastest route for placing Chinese goods on the EU market and countries that are not members of the Union.

In the period 2009 -2016. Years of the United States bring two national security strategies (2010 and 2015), known as the Obama Strategy (by President Obama.). The first strategy (2010), adopted in the conditions of the operation of the financial crisis, the return of Russia, the strengthening of China and the "fatigue" of the EU, was also a "calming" strategy in relation to the Bush (young) war strategy. However, exactly the strong return of Russia and the increasing strength of China, the US strategy 2015 returns to a haven of domination. In this strategy, among other things, the United States sees Russia as the main threat to world security and its own security, equating it with the ebola pandemic and the terrorist organization ISIL. The current vacuum in the US strategy comes in 2016, when Donald Trump wins the presidential election

At the end of this period, the European Union is in a very unenviable position. The main problem of the Union is the identity crisis (uncertainty of the future), conflicts with Russia and the imposition of sanctions, the involvement in conflicts in Syria, the Brexit and the migrant crisis. Under strong pressure from the international community, but also to its own public that there is no security strategy since 2003,

the Union announces the Global Strategy for a Common Foreign and Security Policy of the EU in 2016. This is a strategy that can be denounced as "something between". Namely, with this strategy, the EU strives to, first and foremost, the world, but also its own public, to know that it remains an important factor on the global level, to have a vision of its own path, and that it is intentional, in addition to soft, to build its own power. Such a character of the new EU strategy is best seen from the introduction made by the High Representative for Foreign Affairs and Security Policy Federica Mogherini, who points out: (1) the revision of lending and EU identity, (2) the EU does not give up its strengthening of its position, which, ("soft power"); (3) The EU is against the existence of a world policeman (a kind of "finger in the eye" of the United States), but NATO still considers it important for its security (23 of the 28 EU countries are members of the NAT) (4) The EU does not renounce its own defense, when the conditions are met, and does not reject the determination of states for neutrality, and (5) The EU is striving to redefine its globalist approach and does not give up on the position of one of the centers of power [Forca, Sekulovic, 2017].

#### **4. Character and projection of new security reality**

The above processes, which characterized international relations in the period 2009-2016. years, a new security reality continues, whose new determinants are: the release of Great Britain from the EU and the new US National Security Strategy, announced by President Trump on November 18, 2017. years. [Forca, 2017]. These two events-processes will have a strong echo on the state of the so-called of the bloc's bloc, certainly, with a spill over to relations with other countries of the world.

The new US national security strategy (2017), in essence, is the efforts of the President of the Trump Administration to announce America's return / survival as a world leader for its own and the world's public. In addition to the introductory note of the Vice President, the introduction and the conclusion, the strategy has been operationalized in five parts. The first four continents are four vital national interests of the United States, and the fifth is the regional aspect of this strategy. The four vital national interests of the United States are defined as: 1) the defense of the people, the territory and the American way of life; 2) promotion of American prosperity; 3) ensuring peace through strength and 4) strengthening American influence. These vital national interests are operationalized in 14 strategic objectives and exactly 100 priority actions to be undertaken to achieve these objectives. Russia's and China's key competitive threats are called revisionist countries. North Korea, terrorism and others are listed as the second round of threats. [Forca, 2017].

The security reality of the modern world, crucial, is manifested as a Western antithesis and a new eastern paradigm [Forca, 2017].

#### **5. Western antithesis**

In our language there is a stylistic figure called the Slovenian antithesis, the essence of which is asking questions, offering answers, denying these answers and finding the right answer. A typical example of this stylistic figure is found in the poem Hasanaginica, in verses: What is white in the green?

But they are snowmen, but are they swans? If they were snowflakes, they would have already swallowed, swans, they would already fly; Threads are snow, they are swans, but tent age Hasan-age: He's sick in the wounds of anger. [<http://www.camo.ch/hasanaginica.htm>]. The stylistic figure of the Slovenian antithesis was the inspiration for the new relations between western countries to be called Western antithesis.

What are the characteristics of new relations among Western countries, that we can recognize them as an antithesis? First, it is very difficult to determine the concept of the West in contemporary conditions. If it



used to be the United States and the countries of Western Europe, today Europe was significantly changed. Secondly, with the collapse of bipolarity, or at least the temporary cessation of the West-East antagonisms, there has been a kind of connection between Europe and Russia and China, primarily in the economic sphere. Russia has been admitted to the G8 Group (7 + 1), the G20 (the most developed countries in the world) and made a special Treaty with NATO. Thirdly, with the arrival of Donald Trump to the United States, many issues of relations between Western countries have become open, in particular: 1) NATO's new role, 2) relations with Russia and China, 3) EU-US relations in the light of some of the world's processes, migration, the nuclear program of Iran, the global warming of the planet Earth, and others. The announced UK exit from the Union opened up new issues of relations among Western countries, first of all: 1) a strong decline in the military and economic power of the Union; and 2) what is the new position of the United Kingdom, which, although unequivocally oriented towards the United States, and open controversy

The essence of the Western antithesis is the above-mentioned issues, among which the key issue is - will the EU be abandoned by the influence of the United States? The present situation in their relations suggests not a negative answer. The strong influence of the United States in the Union, above all, is through NATO. The European Union without NATO has neither the capacity nor any chance in the eventual conflict with Russia. This is especially after Britain has left the Union. Previously, the preliminary answer to the basic question of Western antithesis needs little to be clarified, what we will do by citing key facts.

- Unambiguously, until the UK leaves the EU, the Union is a strong political-economic integration. With the outbreak of Great Britain, the number of population-potential consumers is reduced by 13% (from 508 to 443 million), and the area by 6%. The UK economy was the second strongest in the Union (immediately behind Germany), so the GNI of the Union will drop from € 14.6 trillion to € 12 trillion. [[http://www.b92.net/biz/vesti/svet.php?yyyy=2016&mm=06&dd=25&nav\\_id=1147701](http://www.b92.net/biz/vesti/svet.php?yyyy=2016&mm=06&dd=25&nav_id=1147701)]

- The outbreak of the UK from the EU also affects the security and defense aspect of the Union. Namely, the United Kingdom is a permanent member of the UN Security Council and another member state of the Union (in addition to the France) who has nuclear combat systems. Certainly, all military effects of the United Kingdom are respectable. NATO Secretary-General Stoltenberg said at the announcement of the UK's exit from the Union that 85% of NATO's non-EU assets are effective, so all other EU member states have 15% of the Alliance's total. In that sense, Stoltenberg mentions: "After Brexit, the two countries with the highest defense spending, the United States and the United Kingdom, will be outside the EU, and three out of four fighting groups in the eastern wing are under the command of states outside the EU. help non-EU countries". [<http://www.blic.rs/vesti/svet/stoltenberg-eu-ne-bi-mogla-da-se-odbrani-bez-nato/fsgmhqs>].

- After forming, and especially in the first decade of this century, the EU has an economic link to Russia and China, which moves its global player position with the so-called "claim to be soft power. Hundreds of billions of euros of trade between the EU and Russia are in doubt after the introduction of sanctions by Russia by the United States, followed by the Union, on the occasion of the Ukraine-Russia conflict. The Union, in particular Germany and France, have been heavily involved in resolving the conflicts between Ukraine and Russia, but an agreement from Minsk, interpreting the issues in Donbas, the EU and Russia interprets in different ways. The introduction of sanctions on trade between the EU and Russia does not contribute to the stabilization of the situation on the regional as well as globally.

- In an effort to become a global force, the EU, in addition to the pluton-economic power, is also trying to valorize and strengthen its engagement in peacekeeping missions and missions outside of NATO. In this sense, the identity of the Union from Maastricht (1992) to Lisbon (2007) had a path towards the adoption of the EU Constitution. However, the idea of the Constitution collapses in 2005. This fact leads to a crisis of identity and the future of the Union, which is relatively more bridged by the Treaty of Lisbon in 2009. However, even the Lisbon Treaty does not give up its own defense. Thus, in addition to NATO as a non-volatile Union member and recognition of the right to military neutrality (Austria, Sweden, Finland and Ireland), the Union also included a clause on its own defense when the European Commission made such a decision. The emergence of the UK from the Union and the adoption of the Global Strategy for the

Common Foreign and Security Policy of the EU (2016) only accelerated some of the issues of military consolidation of the Union, which was also declared declaratively by the signing of the Structural Organization Agreement (13.11.2017), which, otherwise, provided for in the Treaty of Lisbon

- The global financial crisis, and, in particular, the migrant crisis caused by mass migration from the war-torn areas of Africa and the Middle East to developed countries of the Union, and Brexit and the conflict with Russia (sanctions), led the EU to the brink of survival. The road to the Union is being announced at higher speeds, although this is not very clear in the Union itself. According to some information, Europe at higher speeds, announced by Angela Merkel, and backed by some members, would imply the ending of the same currency and the Schengen agreement, but also the merging of member states into individual agreements and the non-accession by those states that do not want it [<http://www.blic.rs/vesti/svet/eu-sa-vise-brzina-anija-kakvu-poznajemo-se-menja-a-najgore-ce-proci-zemlje-istocne/vqtzcn7>].
- In parallel with the announcement of "Europe at a higher speed", the idea of a military strengthening of the EU is developing again. To begin with, it has been announced the strengthening of "Military Planning and Command Capability", which primarily relates to the stronger influence of the Union on peacekeeping missions and operations in the world. Some analysts claim that such a name is given to avoid the appointment of a "military headquarters", which does not have full support in the Union. [<http://www.blic.rs/vesti/svet/evropa-zeli-ujedinjenu-vojsku-moze-li-protiv-najjacih/gh3sn5w>].
- Several issues of disagreements within the so-called. West, came on the agenda after the US President became Donald Trump. Particularly stinking questions are Trump's attitude that "NATO has become obsolete," the attitude towards Iran's nuclear program and Turkey's position. One of the first disagreements between the United States and the Union, the arrival of the Trump, is the attitude towards NATO. Later, it turns out that, in essence, Trump is the stance that NATO should survive, but that in its financing, a significant increase in share should be made by members from Europe, and not by the United States themselves. Another significant problem on the US-EU line is the relationship to Iran's nuclear program. Namely, in 2015, Iran has concluded an agreement with six countries (US, Germany, UK, France, Russia and China) to limit its nuclear program to replace the abolition of sanctions imposed on that country. Due to the relationship with Israel, according to analysts, Trump is going to give up an agreement with Iran, which does not come to the EU for approval. [<https://rs-lat.sputniknews.com/svet/201709251112776429-neklearnisporazumirantramp/>]. Turkey's position is one of the controversial issues in US-EU relations. It is known that Turkey has been a candidate for EU membership for several decades. According to many analysts, Turkey's membership of the Union is primarily against Germany, with constant conditions. The migrant crisis in 2015, when millions of migrants found shelter in Turkey and hence sought for a path to the Union, urged the EU to enter into negotiations with Turkey, as well as on its accelerated path to EU membership. However, these efforts remain at the level of speculation, additional conditioning and misunderstanding. On the other hand, Turkey, as a NATO member, is increasingly turning to Russia, primarily in the domain of economic as well as military cooperation and joint events in Syria. Turkey's issue has strongly complicated relations, both within NATO and US-EU-Turkey relations. The exit from the situation, for now, is not in sight.

## 6. A new eastern paradigm

The paradigm is the word that originates from the old Greek word paradigm which, in the literal translation, means - to be understandable. [<http://velikirecnik.com/2016/09/02/paradigma/>]. Accordingly, the paradigm is taken as an example, pattern, reputation, or pattern. By definition, the paradigm represents that set of assumptions or rules that we take for granted in the perception of certain things, that is, what each of us perceives during the punctuation of the occurrences that surround us. Sometime the paradigm is also interpreted as a prejudice.

During the Cold War, the West (Western Europe and the US) was the East, led by the USSR, in which the countries of Central and Eastern Europe were united in the Warsaw Treaty (1955). Such an East collapsed

at the end of the Cold War, and a part of the countries that belonged to it adhered to the West. With the collapse of the USSR and the admission of Latvia, Lithuania and Estonia to NATO, the Alliance came to the borders of Russia. With the accession of Poland, the Czech Republic, Slovakia, Hungary, Romania and Bulgaria to NATO, the Alliance reduced the "buffer zone" towards Russia. The spatial, largest division of NATO and Russia is Ukraine. At the beginning, Ukraine was in favor of military neutrality, but its orientation towards NATO led to internal conflicts in which, directly and indirectly, great powers were involved. The Crimean Annexation, or the return of Crimea to Russia, as some see, has created additional antagonisms on the US-EU relationship with Russia, to the introduction of economic sanctions, as well as the military positioning of the NATO missile shield over Russia.

Geographically, today in the central geosphere of the world - Eurasia, there are forces that have small to significant antagonisms with the US, but also with the EU. First of all, it refers to Russia, China and India. These countries have entered into a strategic partnership - BRICS (in addition to the three countries, Brazil and South Africa are also included). This organization covers an area of 39.7 million km<sup>2</sup> (29.8% of the Earth's surface), it has about 3 billion inhabitants (42.1% of the total population of the planet Earth), with a gross national income of 16.4 trillion US dollars (22.3% of the world's GNI). [Forca, 2017]. In the analysis of relations with the USA, different countries of the "New East" approach are different. Thus, the greatest tension is on the route Russia - USA. The old Cold War antagonism was heated by new processes, which made the two greatest powers of the world lead to the position of the new Cold War. The fact is that these forces mark each other as the biggest threat to their own, but also to global security.

China and the US are global competitors in the economic, not in the military sphere. It is unequivocal that the United States sees the danger of China's economic growth and the spread of this impact in the strategy One-Way One Way. That President Trump publicly highlighted in the pre-election campaign, especially after a recent visit to China and Vietnam, where he underlined the kind of plagiarism of the Chinese industry by copying foreign solutions. On the other hand, Vice President Xi Jinping did not remain "bound" to US President Trump, stressing that the globalization of world relations, by itself, was not evil, nor did it lead to major migration of the population, and that protectionism, representing the United States, was bad message for the world economy. In addition, there are antagonisms between the US and China in the South China Sea region, as the US strongly supports (and arms) Taiwan, which China considers its own and opposes such tendencies in America. [Forca, 2017].

Relations between India and the United States, by numerous analysts, from common interests and partnerships, and from two large states, must be seen in the relationship between China and India. Namely, using the fact of some controversial issues between China and India, analysts conclude that the United States is skilled in using such a situation in order to further complicate the relations of these two countries, and gain India's favor according to the US attitude in the South China region. [ <http://www.vesti-online.com/Vesti/Svet/671724/SADpostavlja-temperiranu-bombu-izmedju-Kine-i-Indie> ]

Relations between China and India are very complicated and have a historical dimension. The rift of controversy between India and China arose around the 4000-kilometer border (controversial 2000km), which was defined in 1913-1914 first of all, about Tibet, which in 1951 belonged to China. The war that was held in 1962 with China, India has lost. Even today, some questions remain about some of the territories. However, it is a fact today that the two most populous countries in the world (2.6 billion inhabitants together, which is more than 1/3 of the world's population) are increasingly seeking to push the disputed issues economically by pushing aside. Mutual visits at the highest level are evidence of such an endeavor. Analysts, however, still see that issues remain in economic cooperation. Namely, India has a \$40 billion share in commodity exchange with China. On the other hand, India does not look favorably on the increasing influence of China in the wider region (Myanmar, Pakistan, Bangladesh, Nepal, and Sri Lanka). On the other hand, both India and China are members of the BRICS, which gives a special tone and mutual relations and relations with the United States. Some analysts say relations between China and India are "at the same time rivalry and partnership." It is a strategic shift in relations with the United States and the West, which show India and China, is the presence of Chinese President Xi Jinping and Indian President Pranab Mukherjee at a military parade in Moscow in 2015 (60 years since the end of World War

II), ignoring the leaders of Western countries, called in an analytic circles - "strategic autonomy".  
[<http://www.politika.rs/sr/clanak/327909/Svet/Kina-i-Indija-rivali-i-partners>].

It is difficult to conclude that BRICS will at any price confront the West (USA), but the fact that its leading countries (Russia and China) have a publicly expressed conflict with the United States, which in practice implements in different ways: the introduction of sanctions, curbing economic expansion, spyware, political outbursts, vetoing the Security Council if the proposal came from the opposite side, and more. The fact is that the antagonisms of the "new" West and the "new" East are also present in the military sphere, which opened a new arms race. The world is on the brink of a major war or a new Cold War, according to some analysts. Relations between the West and East have created a new bipolarity in international relations. Some authors use the new bipolarity as a substitute for the term multipolarity.

## 7. Conclusion

The breakdown of bipolarity in international relations after the demolition of the Berlin Wall, only apparently, has inspired the hope that the world moves towards more lasting peace and stability. For decades, the imagined and projected US-USSR-led conflict and the NATO and EU-led blocs dispersed into a corpus of vibrant challenges, risks and threats, known as terrorism, the proliferation of weapons of mass destruction, organized crime and corruption, human trafficking, narcotics and weapons, and others. In the first decade after the Cold War, US domination in international relations was evident, which had a form of unipolarity.

The first decade of this century is characterized by the beginning of a reorganization of international relations, apparent in the terrorist attacks on the United States, which have shaken the sovereignty of that state in international relations, and the strong return of Russia and the strengthening of China and the EU. The global financial crisis, as well as the failed initiative on the EU Constitution, on the global level, have strengthened the influence of China and Russia, which, together with India, Brazil and the South African Republic, form a strong economic integration of BRICS.

By 2016, the most influential centers of power in the world, the United States, Russia, China and the EU, each starting from their own interests, compete with each other in creating and spreading global influence. In these bargains of great powers, in essence, two are the basic directions of their efforts - neorealism and neoliberalism. Neorealism, as a tendency for the general and absolute, military power and influence. Neoliberalism, as the outcome of the globalization of international relations, is, above all, embodied in the creation and influence of multinational companies, whose profits exceed the gross national income of many countries. In essence, unipolarity gives way to multipolarity, famous and called - the new bipolarity. New bipolarity, or multipolarity, is mirrored in the clash of Western antithesis and a new eastern paradigm, especially after Britain began the process of exit from the EU, and Donald Trump won the US presidential election.

The Western antithesis is reflected in a multitude of issues that burden relations between the United States and the EU, making them less unique than the end of the Cold War period. The new eastern paradigm is reflected in the strategic partnership of the key forces of Eurasia - Russia and China, which with the West (primarily the US) have more controversial than common issues.

The big ones were positioned, at least when it comes to strategic commitments. The latest US national security strategy, announced by President Trump at the end of last year, will only impact on minor adjustments to its strategies by other major powers, but it will not change significantly. The Western antithesis and the new eastern paradigm bring the world into a deep sinking of neorealism and neoliberalism, where they accuse each other and regard it as the greatest threat to world peace, and the little ones know how they can and cannot.

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**Zarko Culibrk, PhD<sup>1</sup>**

## **COOPERATION BETWEEN PUBLIC AND PRIVATE SECTOR AS A SEGMENT OF EMERGENCY MANAGEMENT IN TRANSFORMED SECURITY ENVIRONMENT**

**Abstract:** The main topic of this scientific paper is the cooperation between public and private sector in emergency management. During the development of this work, the main methods used are content analysis, comparative analysis and review of the literature. This paper gives brief theoretical review of the process of the coordination and cooperation in emergency management, lists the principles of coordination, mentions the coordination and cooperation on local, regional and state level, describes the cooperation between public, state and private sector in emergency management. The aim of this paper is to show how the coordination and cooperation are significant segments of emergency management in the transformed security environment.

**Keywords:** Emergency Management; Coordination and Cooperation; Levels of Coordination and Cooperation; Cooperation between the Public, State and Private Sector.

### **1. Introduction**

The contemporary, transformed security environment is a source of frequent security challenges, risks and threats. These security challenges, risks and threats can be of a different nature and can be linked to the source of the endangerment. Accordingly, the contemporary security challenges, risks and threats can be of a natural, technical/technological and social character. However, when we discuss the transformed security environment, it is often referred to as human-induced changes and the social character of changes is highlighted. Certainly there are contemporary conflicts and migration crises, which are events that can cause different emergencies or are an emergency by themselves.

An important segment in dealing with these emergencies is the coordination and cooperation of various public, state and private entities. This cooperation enables easier emergency management and more effective resolution of problems caused by the emergency situation.

### **2. Coordination and Cooperation**

Coordination and cooperation are an important part of emergency operations, especially when there are accidents that require the involvement of a large number of emergency services of local, regional and state importance, as well as a significant number of governmental, non-governmental, public and private organizations, enterprises and institutions. In view of such a large number of services in one place, it is not uncommon for them to disagree among themselves, which makes coordination more important. The importance of coordination is also to avoid duplication of functions, and in a careful assessment of the necessary resources, which prevents the possibility of a lack of key assets (Ćulibrk, Upravljanje vanrednim situacijama, 2015, p. 220).

When an accident occurs, it is best managed and coordinated by members of local emergency services, since they know the vulnerable area and the needs of the afflicted population. However, if there are

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major scale disasters, then state officials must be involved in coordination, but the coordinating bodies have to have members of the local emergency services. An exception to this "rule" can be a high level of suffering at the local level, which would disenable significant participation of local emergency services. If an accident goes beyond state borders, then international or international coordinating bodies should be established (if more than one country is affected), if necessary with the intervention of the relevant UN agencies, in order to manage the emergency situation more efficiently.

So, in emergencies responses, there are several layers of response. There is an emergency services response that is routine and deals with the immediate needs of victims (search, rescue, evacuation, ambulance). There are also strategic issues that must be solved by state entities. Between these two layers is the middle level of the organization. In that sense, coordination can be considered from the tactical (local), operational (regional) and strategic (state) level (Čulibrk, Upravljanje vanrednim situacijama, 2015, p. 220). Different experiences can often be a way to organize the work of one such system (Canton, 2007; Coppola, 2007; Erickson, 2006; Haddow & Bullock, 2006; Pampel, 2008).

### 3. Principles of Coordination

The activities of any service or institution under different conditions are easier to implement if certain principles are respected. The same applies to the coordination and cooperation of various services and institutions.

Starting from the principle given by Enrico Quarantelli (Enrico Louis Henry Quarantelli), we can highlight ten major principles of coordination (Čulibrk, Upravljanje vanrednim situacijama, 2015, pp. 222-224). These principles will be explained and briefly explained without further elaboration: 1) Distinguish the needs that create an accident with the need for reaction. The first group of needs depends on the impact and type of danger (e.g. the need for preventive vaccination in the event of a risk of infection), while the second group is a constant in every emergency (e.g. need to get help needed); 2) Carry out a creative role in an appropriate way, which is the essence of coordination in emergencies; 3) Deploy forces and resources in an effective way; 4) Execute appropriate distribution of tasks and distribution of labor. Tasks can be pre-determined and assigned to the appropriate service; 5) Carry out adequate data processing so that optimum number of services should be included during emergencies, which will process data well and make the necessary conclusions; 6) Facilitate the decision-making process because emergencies often create conflicts between regular and emergency services over the issues who is in charge of an emergency; 7) Focus on the overall development of the system of coordination; 8) Incorporate new aspects to the existing situation. In an emergency, there may be a significant role for some organizations (e.g. private companies). This must be recognized and this should not be dismissed in such cases, but there must be a way to incorporate each organization into an existing system of coordination; 9) Provide media with appropriate information; 10) Have a functional emergency management center. This center should have functional coordination teams.

From these principles it is evident that emergency management is a situation that requires adequate coordination and cooperation, and not just command and control.

## 4. Coordination and Cooperation at the Local, Regional and State Level

### 4.1. Coordination and Cooperation at the Local Level

Cities and municipalities have the primary responsibility to warn people of imminent danger. Minor accidents (traffic accidents, fires) are everyday occurrences in every country, and the main emergency services (ambulance, police and firefighters) first react and come to the scene - deceiving order, extinguishing fires, providing emergency medical help, rescuing unharmed. Local emergency services are also the first to react when it comes to major accidents, but at the time their activity is supported by

the local community and higher levels of government. In addition to members of emergency services, local officials have the primary role in coordinating the work of local emergency services, which are also responsible for developing local operational plans for emergency response. Therefore, local communities should have trained personnel who, in cooperation with emergency services, are able to organize and coordinate emergency response, both in regular emergency situations and in complex emergencies that are the consequence of new risks and threats.

#### 4.2. Coordination and Cooperation at the Regional Level

Coordination and cooperation, as well as response and overall management of emergencies at the intermediate level of the organization, should be in line with the central level of government in a country (regions, provinces, areas). Coordination and cooperation at the intermediate level of organizations in strictly centralized countries should follow the existing informal organization of the country by region, which relies on the structural organization of various organizations and institutions (e.g. to follow the organization of the Ministry of Interior, the organization of the post and telecommunication companies, etc.).

#### 4.3. Coordination and Cooperation at the State Level

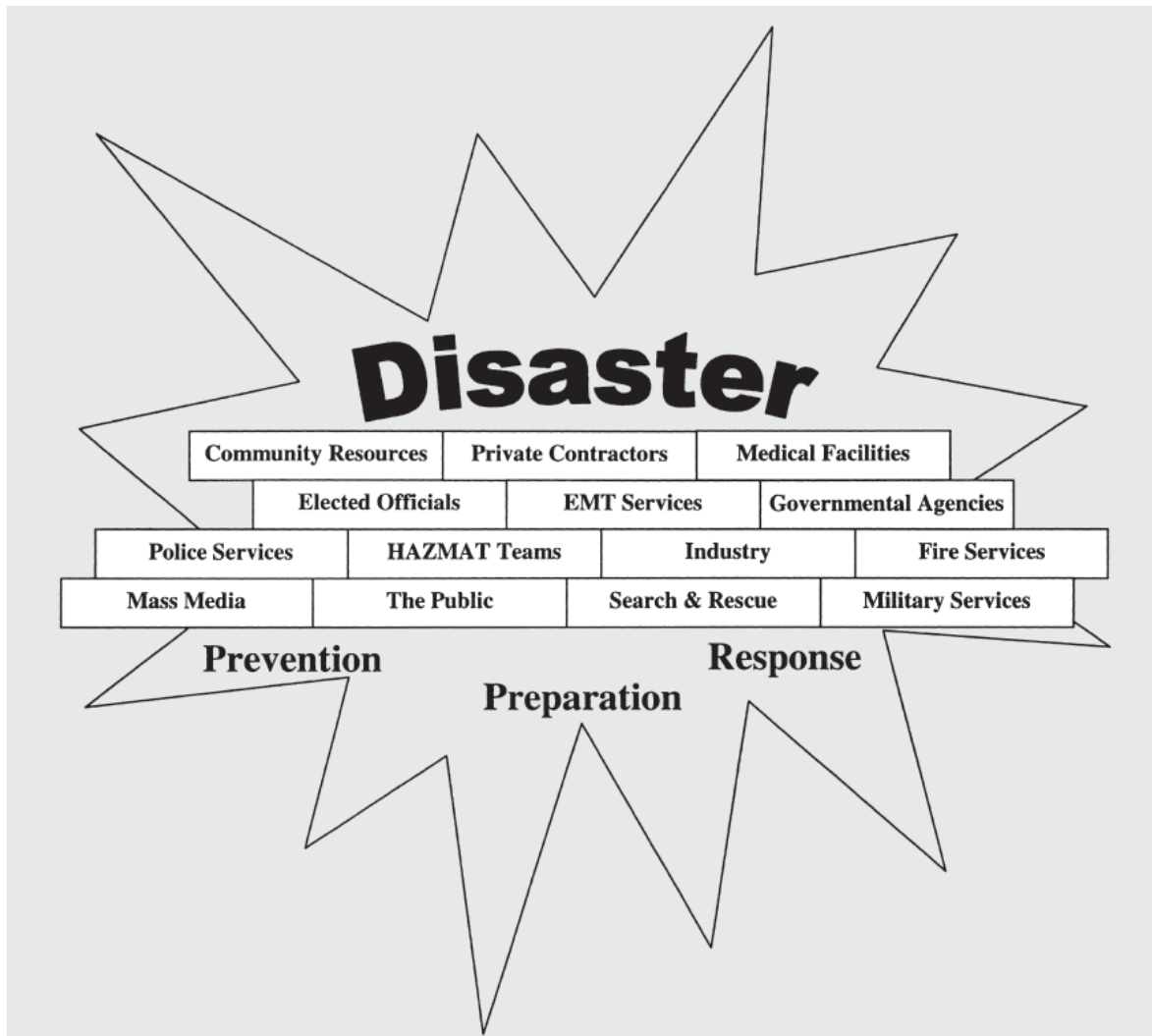
When it is found that an accident outstrip local and regional capacities, then assistance is sought from the state. This is the first step towards the involvement of state officials, services, ministries and all available resources available of the state. If the state aid is involved, then this should mean the joint work of all services, organizations, enterprises and institutions in resolving the situation. These bodies should work on a document that is adopted in state institutions. One of the ways to effectively manage the emergency at the state level and coordinate the work of all departments is to declare an accident, declare a state of emergency or declare the state of defense against an accident.

### 5. Cooperation between state, public and private entities

The first line of defense against various disasters are the police, ambulance, firefighters. The virtues of the members of these services (courage, dedication) are desirable in every society. But with the development of society, there are more and more complex emergencies, which imply greater specialization in emergency services and the need to be educated, trained and equipped to deal with certain emergencies. Although these are key emergency services that are responsible for responding to any emergency, they are only part of an extended partnership (Figure 1) that acts as an integrated and multi-layered system, despite differences in the nature of the accident (natural, technical, technological, social), competencies (local, regional, state), type of organization or enterprise (public, private). The objectives of this extended cooperation are the preparation, prevention of the impact and response to situations that can be a threat to human life and health, property and the environment.

Although there is progress in cooperating with higher and lower levels of emergency management, the fact is that the private sector, in the case of emergencies, behaves in the "I do not care" system, although the accident can also hit them. In this sense, all organizations, enterprises, services and institutions that are state, public or private, with the legal rights they have, must also specify the obligations that will be required to respect, inter alia, the obligation to act in emergencies. But even when this is regulated by law, the work of those entities should be monitored, so that the obligations will not be limited to satisfying the form only through the possession of a regular paperwork that regulates action in emergencies, instead of the real commitment to meeting the social objectives that the prescribed obligations represent.

Figure 1: Cooperation between public and private entities in emergencies



Source: (Erickson, P. A.: Emergency Response Planning for Corporate and Municipal Managers, 2006)

## 6. Conclusion

The key to the success of emergency management in a transformed security environment, but also in general, is the quality of emergency services, as well as state officials and other state, public and private entities. A quality management system ensures that authorities can fulfill their obligations.

The coordination and cooperation of various state, public and private entities involved in emergency management requires a process to successfully carry out the activities of these entities. Successful action depends on understanding of the dynamics of developing the emergencies, opportunities and capacities of the local community. The creativity of responsible people and adapting to new situations are also important factors for successful performance.

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## EU CIVIL PROTECTION MECHANISM WHEN DEALING WITH EMERGENCY SITUATIONS – CASE STUDY BOSNIA-HERZEGOVINA

**Abstract:** The main subject of this work is the emergency situation in Bosnia and Herzegovina which occurred in 2014, as a consequence of a disastrous flood. The definition of an emergency situation in BiH is also given here, with all its features, as well as the definition of civil protection, which is the main feature when it comes to responding to this emergency. The role of EU is also explained here, i.e. its Civil Protection Mechanisms during and post-emergency management of flood consequences. The aim of this work is to present the advantages of activating Civil Protection Mechanisms during emergencies, through the case study. Descriptive research has helped to get detailed and objective results when it comes to the scope of economic damage during the floods in the observed period and the activities that EU performed during the emergency and after it. The case study refers to BiH which has its border with Croatia in the north over the Sava River, and its border with the Serbia in the east over the Drina River. It is estimated that the total influence of these hazardous floods reached the amount of 2.04 billion Euros or 15% of GDP of BiH in 2014.

**Key words:** Civil protection, emergency situation, Civil Protection Mechanisms of European Union, flood.

### 1. Introduction

During May 2014, really heavy rain that lasted for numerous days influenced flood emergence in the northern, eastern and central areas of Bosnia-Herzegovina and some parts of Croatia and Serbia. These were the most severe floods in the last 120 years, which caught BiH unprepared. Created destructions deepened the existing poverty and unemployment in a country that was still recovering from the consequences of the war (1992-1995). This natural disaster affected around 25% of BiH territory, i.e. around 1 million people, and that is approximately 27% of total BiH population (3,8 million). More than a half of the affected area is highly urbanized and densely populated. The aggravated circumstance is that, in the affected territory, most important agricultural areas in BiH are located and at the moment of these floods, the land was fully sown. Many local communities suffered severe damage and destruction, urban, industrial and rural areas were completely flooded for days, cut off, without power, water and any kind of communication. Houses, infrastructure, schools, hospitals, private facilities, farms and crops were wiped off the face of the earth, which led to public service and local economy breakdown. Constant precipitation, unprepared response of the local communities, entities, District Brčko and the whole BiH influenced the declaration of an emergency in the great deal of Republic of Srpska and Federation of BiH. The direct consequence of emergency declaration was asking United Nations and European Union for help. Their help referred to response phase<sup>2</sup> and recovery phase<sup>3</sup> in an emergency situation. The notion “emergency situation” has different interpretations, depending on the source, be it the experts or some other specialties. Many different explanations of this notion are available in BiH, and they can be understood through its specific organization. For purposes of this work, an explanation of this notion was given according to Čulibrk (2015), who states that “an emergency situation represents an event in certain area that occurs as a result of natural, social or technical-technological disaster, and has human casualties, health problems, environmental issues, material damage and common life disorder as a consequence, which demands a

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<sup>2</sup> Response phase in emergency situations implies different measures and actions taken before, during and after the disastrous event, in order to reduce casualties, damage and other disorders. See more in: Čulibrk Ž. *Emergency situation management*, 2015. ISBN 978-99955-23-54-1

<sup>3</sup> Recovery phase in emergency situation management is a phase in which individuals, communities and states fix and renew all the things lost in the disastrous event and, in an ideal case, it reduces the risk of similar disasters in the future.

quick response of available resources, according to existing norms and procedures". Regardless of the different definitions of emergency situation in BiH, what all of them have in common is that they recognize events that can have different consequences, in certain period of time, that influence numerous actors. Furthermore, the mutual characteristics of specific civil protection systems in BiH are their procedural arrangement and their norms. Thanks to this arrangement, activation of EU civil protection mechanisms was timely requested. In order to understand EU civil protection mechanism intervention, it is necessary to get to know its organization in BiH first.

## 2. Civil Protection Organization in BiH

With Dayton Agreement, from 1995 up to establishing the Law on Ministries and other authorities in BiH, Civil protection was organized at the entity level, and then at the level of Brčko District (BD). First elements of state structure and management at state level appeared with the establishment of Ministry of Security in BiH in 2003, i.e. its organizational unit (*Department*, and after some time *Civil Protection Sector*), i.e. to day's *Protection and Rescue Sector*. In Republic of Srpska, a part from Constitution of RS, Law on Civil protection is also established (*"The Official Gazette of RS"*, no. 26/2002), as well as 13 other laws from different areas that influence civil protection development. Civil protection in Federation of BiH (FBiH) is regulated by Constitution of FBiH as well as by other established regulations that are published in Collection of Regulations from 2007. Civil protection in Brčko District is regulated by Brčko District Bylaws with eight additional laws. In April and May 2008, both Houses of Parliamentary Assembly established *Framework law on protection and rescue of people and material goods from natural and other disasters in BiH*, which entered into force on July 1, 2008 (*"The Official Gazette of BiH"*, no. 50/08) (Zorić, 2016:156). In this Law, civil protection is defined as a planned and organized part of the system of protection from natural or other disasters that consists of people, factories and other legal entities organizing, preparing and doing something for the purpose of protecting and rescuing people, material goods and environment from natural or some other disasters and their consequences. Civil protection is humanitarian and non-military.

### 2.1. Civil protection Administration in Republic of Srpska

The main document that regulates area of protection and rescue in RS is *Law on Protection and Rescue in emergency situations* (The Official Gazette RS, no. 121/12), which was established in 2012 and it presented the agreement between the entities upon the issue of civil protection with *Framework law on protection and rescue* (The Official Gazette RS, no. 50/08). Protection and rescue system in RS is organized on two levels, those are: entity and municipality level. Since 2016, Civil protection Administration in RS is an independent administration within the Government of RS.

*Sector for organization, planning and training* deals with professional and other actions that refer to improvement of civil protection system development, organization, planning and performing training and exercises of civil protection structures, informing population about natural and other disasters.

Department for Civil protection plans and measures deals with professional and other actions that refer to law drafts, bylaws and other documents in this area; deals with actions related to training, international collaboration, projects and informing; prepares professional information; establishes collaboration with professional and other institutions regarding training organization for civil protection structures; proposes the importance of taking part in home and international seminars in the area of civil protection.

*Department for observation, information and warning* deals with professional and other actions that are related to law drafts, bylaws and other documents in this area; deals with action related to observation, information and warning; coordinates the unobstructed flow of information between the Administration and subjects for protection and rescue from natural and other disasters; proposes measures for action improvements regarding system efficiency and functioning of observation, information and warning; collaborates with subjects important for protection and rescue from natural and other disasters.

The civil protection regional departments deal with professional and other actions that refer to law drafts, bylaws and other documents in this area. They participate in consequence mitigation when natural and other disasters occur. They make and deliver reports on natural and other disasters in the area of regional department, monitor civil protection system functioning. They take certain actions for coordinating measure planning and organization, as well as protection and rescue forces in the area

that is covered by regional department. They coordinate and direct municipality institutions, services and other important subjects. They propose, prepare and organize seminars, training and exercises for civil protection forces in the department area.<sup>4</sup>

## 2.2. Civil protection Administration in Federation of BiH (FBiH)

The entity structure of FBiH (10 cantons) has also, by all means, implication on protection and rescue system structures in that entity. On FBiH level, there is Federation civil protection Administration which is directly subordinate to the Government of FBiH. Federation civil protection Administration is an independent federal administration that deals with administrative, professional and other affairs established by the decree of the Act 22 of the Law on Federal Ministries and Other Federal Administration Bodies ("The Official Paper of FBiH", no. 58/02, 19/03, 38/05, 2/06, 8/06, 61/06, 52/09 and 48/11). In the area of fire protection and firefighting, this Administration deals with affairs established by the decree of the Act 13 of the Law on fire protection and firefighting ("The Official Paper of FBiH", no. 64/09). In the area of mine clearance and explosive device destruction, this Administration deals with affairs established by the Law on mine clearance in BiH ("The Official Gazette BiH", no. 5/02).

## 2.3. Cantonal Administrations

In all ten cantons, individual cantonal civil protection administrations have been formed and they deal with administrative, professional and other affairs in the area of protection and rescue under cantonal jurisdiction. In all ten cantonal civil protection Administrations, civil protection cantonal operating centers have been formed. And also, in each of ten cantons, cantonal civil protection headquarters have been formed as the specific professional-operating bodies of the cantons that are authorized for protection and rescue of people and material goods action management in the cantonal area.

## 2.4. Sub-department for protection and rescue in Brčko District

Protection and rescue in Brčko District is under the jurisdiction of Public Security Department. This sub-department for protection and rescue deals with preventive actions and rescue of people and material goods that are at risk of natural and other disasters. This sub-department also deals with fire protection, mine clearance and other explosive device clearance, and other observation, information and physical-technical security of the building of Brčko District Government and other protection and rescue actions. Civil protection in Brčko District BiH was established on January 1, 2003 (Security Studies Center, 2010). Sub-department for protection and rescue consists of three sections, those are: Section for fire protection and rescue, Civil protection Section and Section for observation, information and physical-technical security. The crucial document the whole protection and rescue system in Brčko District is based on Statute book of Brčko District BiH.

# 3. Civil protection coordination in BiH

In accordance with Dayton Peace Agreement from 1995, the issue of protection and rescue stayed under the jurisdiction of the entities, and later at the level of Brčko District BiH. Up to 1998 in RS and up to 2000 in FBiH, civil protection was part of Ministries of Defense of three entities. In RS, civil protection was organized as a Republic Civil protection Administration and was independent and directly connected to the Government of RS (*The Official Gazette RS*, no. 10/98).

From 2000 to 2002, Republic Civil Protection Administration is a part of Ministry of Administration and Local Self-governance. From the end of 2008, Republic Civil protection Administration is a part of Ministry of the Interior RS. From 2016, civil protection is an independent Administrative organization within the Government of RS. In FBiH, Federal Civil Protection Administration is abstracted from Ministry of Defense FBiH, based on Law on the Amendments to the Law on Federal Ministries and Other Federal Administration Bodies and works as independent administration. (The Official Paper of FBiH, no. 39/03). Council of Ministers of BiH, within which there is also Ministry of Security, is the highest authority that deals with tasks concerning protection and rescue. These tasks are only stipulated by the Framework Law on Protection and Rescue (Framework Law on Protection and Rescue of People and Material Goods from Natural and Other Disasters in BiH, May 15, 2008, Act 13). After establishing this Framework Law, Ministry of Security of BiH becomes officially the coordination authority when it comes to plan and response activities of other authorities and

institutions in BiH in the area of protection and rescue. This Framework Law defines precisely how Ministry of Security of BiH has to act when it comes to civil protection and rescue, Act 14.

#### **4. Coordination Authority for Protection and Rescue (at the level of Council of Ministers of BiH)**

One of the authorities established by the *Framework Law on Protection and Rescue of People and Material Goods from Natural and Other Disasters in BiH* is Coordination authority of BiH for protection and rescue. Members of this coordination authority are not selected through elections, but are assigned upon the decision of the representatives of all three constituent nations in Council of Ministers. This is very important because this authority can be considered state authority due to not understanding political relations in BiH, and that would immediately mean that the jurisdiction would be transferred from entity level to level of the whole BiH. This authority is not permanent and it does not function permanently, but team members meet whenever it is necessary.

#### **5. Operative communication center of BiH 112**

In accordance with Supplementary Protocol of First Geneva Convention on Protection of International Armed Conflict Victims from 1949, since June 8, 1977 and its Act 61, Alerting Service introduces first humanitarian task. The main reason for that is the fact that emergency situations usually do not occur at once, but take shorter or longer period of time when they happen, often as weak signals which are symptoms for an upcoming event. Observation and information are actions that consider gathering different data that refer to certain dangers, their processing and informing the population and economy authorities that are at risk. That exactly is the role of operative protection and rescue centers (Beridian, 2008:121).

In order to prematurely detect all sorts of dangers, and with the aim to protect people and material goods, most of the countries created Observation and Information Service. Generally speaking, that service consists of operative centers (main, regional, local) and observation and monitoring systems regarding vulnerability and dangers (alerting systems, relation systems, and public information systems) (Gačić, 2008: 63). Each operative center has various functions. Firstly, it serves as a command center during the emergency crisis and response, which means it has all the necessary communication equipment. Secondly, it is the place where the whole operation is conducted, and thirdly, it represents communication center, which means it receives information from the spot, processes them and delivers them to lower levels (Keseć, 2008:111).

Up until 2006, actions of observation and information in BiH were conducted at the entity level within the entity Ministries of Defense. With entity Ministries of Defense abolition, entity observation and information systems were abolished too, and civil protection operative centers were established instead (Protection and Rescue in Bosnia-Herzegovina, 2010). In accordance with Act 18 of the *Framework Law on Protection and Rescue of People and Material Goods from Natural and Other Disasters in BiH*, Operative-communication center (OKC BiH-112) was established. The necessity for this center's establishment came from 2002/227 directive of ES and other mechanisms of EU Council and Parliament, which strengthen action capacities of protection and rescue systems of countries that are EU members. Furthermore, by accepting the action plan of the UN Human Development Declaration for the period up to 2015, and by accepting NATO's Individual Partner Action Plan (IPAP), BiH has committed itself to institutional solution of protection and rescue issues (Protection and Rescue in Bosnia-Herzegovina, 2010). OKC BiH-112 was established in Sarajevo on May 22, 2009. Its tasks are stipulated by Regulations on Organisation, Conditions and Functioning of OKC BiH (*The Official Gazette*, no. 56/09).



## 6. EU Civil Protection Mechanism Development

In 1992, European Community Humanitarian Office (ECHO), which is a part of Directorate-General for European Civil Protection and Humanitarian Aid, was established, and after 1992, i.e. after the Maastricht Treaty or The Treaty of European Union, actions have been organised based on subsidiary principles. EU members and institutions have increased their trust towards the collaboration among themselves in order to help each other to more efficiently deal with civil protection issues when it comes to natural and other disasters, because mutual actions are undoubtedly of more value. This sort of collaboration enables joining resources, as well as maximising collective European effort on the spot. By establishing the Lisbon Agreement that came to force in 2009, civil protection was accepted as a sector of EU formal policy, and pursuant to the Article 196, civil protection was established as a field of “mutual jurisdiction” among the countries that are members of the EU, and consists of “support for, boost of and coordination among the actions taken by the countries-members of the EU in case of emergency situations” (*The Official Gazette*, no. 56/09.). Community Civil Protection Mechanism was established by EU Council Decision 2001/792/EC. The aim of this Decision was to establish the framework for quick collaboration between civil protection state services in case when mutual help was needed and coherence strengthening when taking action at international level in the field of civil protection. Namely, Margot V. Olstrom, the former Commissioner for Environmental Protection, suggested Community Civil Protection Mechanism in 2001, which activates solidarity in case of emergency situations inside and outside of the EU. Depending on circumstances, solidarity currently implies joining certain resources that EU members have (transportation, equipment, medical teams, etc.) It is designed to respond to consequences of natural disasters and those caused by humans (industrial and maritime accidents, terrorist attacks, etc.) After the tsunami in South Asia, European Commission filed on January 27, 2006 a proposal for Amendment to Decision of EU Council from 2001, with the aim of Mechanism improvement. EU members responded with Decision of EU Council from March 5, 2007 which states that Commission can use a part of budget, i.e. 189,800,000 Euros for the period from 2007 to 2013, for relevant activity financing. A valid legal framework organising European civil protection consists of two main legal regulations, and those are: Decision of EU Council which establishes Community Civil Protection Mechanism (Amendment, 2007/779/EZ, Euroatom) and Decision of EU Council which establishes Financial instrument for civil protection (2007/162/EZ, Euroatom).

Rapid development of threatening phenomena that exceed national borders and disable state subjects to respond to those events appropriately, caused European Union to establish Decision on EU Civil Protection Mechanism in 2013, 1313/2013/EU (*The Official Gazette of European Parliament and European Council*, December 17, 2013. no. L 347/924) which unites earlier activities in the field of civil protection. By accepted this Decision, EU members, and those countries that would like to become one, agreed on accepting institutional rules of structure and activity in the field of civil protection. At the same time they obtained the pattern which protects specific values, resources and interests at the state level.

## 7. EU Civil Protection Mechanism Activation in Bosnia-Herzegovina

Due to Civil Protection and Armed Forces limited resources and capacities, it is estimated that BiH was incapable to completely respond to all requests. At the proposal of Ministry of Security, Council of Ministers of BiH established Decision on Seeking International Help on May 15, 2014. Based on the decision made by Council of Ministers of BiH, Ministry of Safety of BiH filed a request for international help via EU Civil Protection Mechanism and NATO ERDCC (Research sector of Parliamentary Assembly of BiH, 2015). On May 16, via Coordination Authority for protection and rescue in BiH, first rescue teams arrived. Exactly 850 rescuers participated in these teams. This was also the biggest operation of EU Civil Protection Mechanism ever since 2002. Numerous activities of the Mechanism will briefly be described here through flood response phase and recovery phase.

Flood response phase:

International help which was accepted from Civil Protection Mechanism consisted of: the team from Slovenia, specialised team of fire fighters-rescuers, people engaged in water pumping and draining



from buildings and water pockets in depressions, 58 people, 21 vehicles and 50 pumps; Firefighting unit from Slovenia consisting of 2 teams of 8 members, one team engaged in water pumping and the other in disinfection, 16 people, 3 pumps of lower capacity and 3 vehicles; Team from Italy, engaged in water pumping and draining from buildings and water pockets in depressions, 38 people, 18 vehicles, 1 pump of high capacity and 10 of medium capacity; H ELP, German humanitarian organisation, engaged in evacuation tasks and power network enabling, 6 people, 1 firefighting vehicle, 1 off-road vehicle, 4 pumps, 1 generator and other equipment. Specialised firefighting unit from Great Britain, engaged in evacuation, food and water supply, power network enabling, 33 rescuers with equipment; Turkish specialised team from one utility company from Istanbul, engaged in water pumping and draining from buildings and water pockets in depressions, 50 people, 19 vehicles, 15 pumps; Rescue team from Luxembourg, 5 motor boats, 6 vehicles and 23 rescuers; Rescue team from Slovenia, 4 motor boats, 12 rescuers; 1 helicopter for evacuation from Slovenia; Team from Poland with two pumps for water and mud pumping of high capacity, 37 people and 15+3 vehicles; Two teams from Denmark engaged in water treatment in Šamac, 16 people, 3 pumps of lower capacity and 3 vehicles; 2 helicopters for evacuation from Croatia; 2 motor boats from Croatia; Team from Slovenia, 4 motor boats, 6 vehicles and 12 rescuers; International team for well and sewage system purification. These teams helped with evacuation and rescue of 3000 people, purification of 4 million litres of water and pumping over 4 million m<sup>3</sup> of water from flooded areas. During the floods, 22 people died and 2 went missing. If it wasn't for the timely help of the Mechanism, the number of casualties would be significantly higher.

#### Recovery phase

On August 15, European Union started the EU Program for Flood Recovery in BiH worth 43,52 million Euros, with EU participating with the amount of 42,24 million Euros. Program activities are focused on reconstruction of 4000 buildings for about 14 000 people, and also 100 of local roads and bridges, 90 education institutions (including pre-school institutions), 10 facilities for water supply and sewage system, 3 municipal buildings, 4 centres for Social Works and 4 health institutions. This EU Recovery Program is in coordination with *The Estimation of Recovery Needs* that were conducted by home authorities with the help of EU, UN and World Bank. Apart from EU activities, BiH also got significant help from UN agencies. UN's most significant help refers to two flood recovery program implementation, those are:

- EU Flood Recovery Program which was implemented by United Nations Developing Program (UNDP), International organisation for migrations (IOM) and United Nations Children Foundation (UNICEF). This program's worth was 43,5 million Euros.
- UN Flood Recovery Program "Today for us", whose worth was 22,6 million USD in total.

## 8. Conclusion

EU Flood Directive 2007 /60/EC should be implemented for EU members as well as for those countries which are still not in the Union, and they have direct borders with the EU. Reason for this is the fact that threatening phenomena, in this case floods go exceed national borders of one country thus becoming the mutual issue. Civil protection Mechanism provides timely intervention with optimal forces and resources in the most affected areas.

It is necessary for the entities in BiH and Brčko District to harmonize legislation in the field of civil protection in order to provide quick and quality collaboration when applying this mechanism. It is also necessary to create more efficient coordination functioning at the level of BiH, in order for Operative-communication centre to be more efficient. Firstly, the service number 112 should be put to use. Doing this, time spent sending and receiving requests for help and distributing help would be shortened.

There is need for regional collaboration improvement when it comes to risk evaluation, risk mapping, communication, planning, regulation coordination, mutual training and exercising through bilateral collaboration of the countries in the region, Croatia, Serbia and BiH above all.

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## THE ROLE OF THE MEDIA IN THE TRANSFORMATION OF TERRORISM

**Abstract:** The media have a major impact on all spheres of life and people have the only experience of many events thanks to the media exclusively. The public opinion has often been determined by the manner of media reporting, that give a great power to the media. Terrorists understand this presumption, so they pay a great attention on way how to attract a media coverage in order to achieve their goals.

The question is no longer whether there is a relationship between the media and terrorism, but in what way the media and media coverage influence on the transformation of terrorism. The transformation of terrorism is reflected in the adaptation of terrorist action to become more attractive to the media coverage. This fuels fear among the citizens, which creates numerous negative political, social and economic consequences for the attacked state.

**Key words:** media, media coverage, terrorism, transformation of terrorism;

### 1. Introduction

The media have become a very important factor of political and social power, but also a factor that largely shapes public opinion and world democracy. The media shapes the behavior of individuals, groups and the masses by creating political will, attitudes, needs, and habits. In this way, people understand and see the truth and reality in the way the media present them. Accordingly, there are numerous discussions about the relationship between the media and terrorism. Someone believes there are no significant and proven relationships between terrorism and the media, and that terrorists they cannot attract media attention, that terrorist organizations can achieve their goals without the support of media coverage. There are more numerous authors who claim that there is a symbiotic relationship between terrorism and the media, and that the media fuels our fear of terrorism.

Informing the public opinion of a particular country about the execution of terrorist act is one of the goals of the terrorist groups, and they are trying that their acts primarily attract the attention of mass media. Terrorists get the media attention that gives them the opportunity to reach a wider auditorium, and the media acquire a larger audience, which indicates that there is symbiosis between terrorism and the media, that is, the relationship to which both parties benefit (Walsh, 2010:5).

It is undeniable that there is a symbiotic relationship between the media and terrorism, and the question is how the media and terrorism work together. Globalization and the development of new and mass media, and a greater media coverage of events all around the world, results in the situation that the news can be transmitted worldwide. Terrorists use this fact and their goals are governed by the postulates of media reporting, which makes it clear that terrorism has been transformed through the media. The transformation of terrorism through the media is reflected in the adaptation of terrorist action to become attractive to the media that will report it to the days. This arouses fear among the citizens, which creates numerous negative political, social and economic consequences for the attacked state.

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## 2. Terrorism as a media phenomenon

Terrorist activities are carried out with predefined goals that can be: compelling the opposite side to make a certain compromise, creating a separate state, unifying the nation, changing the political system, creating a society that will function on a different postulates. Different goals are conditioned by the diversification of the mode of action, and what is common to all terrorist groups is that none of them take action on a random basis without prior detailed planning. Terrorist organizations want to get as much publicity as they can and to achieve their goals by using intimidation (Hoffman, 2000:118). Therefore, it is possible to see terrorism as political violence that is being undertaken in order to attract public attention and then communicate the message through the created publicity. For terrorists, the ideal situation arises when such a message challenges the reactions of the audience on the way that they have predicted.

Terrorists maximize their effect by provoking fear in the audience, and in that process the media plays a vital role. Terrorists provide the media with the sort of public spectacle they need to satisfy their audience - a highly compelling performance that combines the elements of bloodshed and mystery, human interests and politics, heroes and villains – while the media, for their part, supply the terrorists with an immediate audience, available at a low price, on a potentially planet scale (Wieviorka, 1993:42).

Perhaps the observation that "The Terrorism is Theater", which Jenkins made in the 1974 paper, best describes the relationship between the media and terrorism. "Terrorists attacks are often carefully choreographed to attract the attention of the electronic media and international press. Holding hostages increases the drama. Terrorism is aimed at the people watching, and not to actual victims" (Jenkins, 1974:4). The technologies available in the globalized world have influenced the increase in the number of audiences accompanying the mentioned theater.

The media are often been accused of "facilitating the business of terrorists". So, a special attention is paid to the question of how the relation between the terrorism and the media influences public opinion and policy makers. According to Hoffman, the most common opinion of statesmen, scientists and other critics is that the media or "the best friend of terrorists" or, according to the famous metaphor of the former British prime minister, Margaret Thatcher, they give them "the oxygen of publicity on which they depend" (Hoffman, 2000: 128). The key question is whether the relationship between the media and terrorism affects the public and decision-makers in such a way as to hinder or promote the achievement of terrorist goals. One should not ignore the fact that, when it comes to public opinion, only experience most people have about terrorism is thanks to the media. The public, after hearing about the terrorist act from the media, can make pressure on the decision-makers to make certain concessions. On the other hand, for the governments of the states it is important that the media do not report on the attitudes of the terrorists. It is important that the public to remain calm, and it is a great advantage if the media avoid the stories of the victims of the attack and the pain of their loved ones because they create public pressure on the government to make concessions (Đurić-Atanasievski, 2010:365). Obviously, terrorists want exactly the opposite, that the media raise terrorist acts to the level of spectacle, which makes the role of the media very challenging and responsible.

## 3. The relationship between the media and terrorism

Media and terrorism are interconnected in a specific, complementary way. When determining their relationship, in the literature, we mostly encounter discussions about the existence of a symbiotic<sup>2</sup> connection, whether the authors confirm or deny that relation. Sociologist Michel Wieviorka in the book

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<sup>2</sup>In sociology, the notion of symbiosis implies a relationship of interdependence between different groups within the community, when groups are different from one another, and their relationship is complementary (Wilkinson, 2006:145).

"The Making of Terrorism" seeks to challenge the claim that terrorists and the media are in a symbiotic relationship and lists four types of relationships that he perceives to exist between the media and terrorism.

The first of these relationships is simply one of *pure indifference*. Here, the terrorist neither seek to frighten a given population group beyond their intended victims nor to realize a propaganda coup through their acts. There is no expectation of any meditation whatsoever on the part of press. The first mode is unusual, since terrorism most often aims at arousing a widespread reign of terror, or a widely publicizing explanations of its struggle (Wieviorka, 1993:43). Wieviorka recognizes this kind of relationship in the phases of pre-terrorist violence that can develop within the society or a sector of society relatively uninvolved with the mass media. This relationship is very much criticized as unreal, because even for the purpose of creating terror in an intended set of victims, the perpetrator relies on some channel or medium of communication to relay the threat. If there is no aim to instil terror, then the violence is not of a terroristic nature (Wilkinson, 2006:145).

According to Wieviorka, the second kind of relationship is *relative indifference*, in cases in which perpetrators of violence remain indifferent about making the headlines not out of disinterest with regard to the most powerful media, but because there already exist channels of communication through which to discuss and explain their positions. Sufficient means may be furnished by a legal and relatively free press from either the far right or the far left, radio transmitters located in safe zones, centers for free expression such as universities, churches, or mosques, or places in which communications occurs and in which ideas concerning violence can be questioned and legitimated. Wieviorka concludes that in this case violence is not necessarily media oriented: its aim is neither to put on a show nor to capture the attention of the mass media. This second mode corresponds, primarily, to pre-terrorist actor who are well on their way to, but still far from becoming truly engaged in, clandestine activity or indiscriminate and unchecked violence (Wieviorka, 1993:44). Nevertheless, Wieviorka's "channels that already exist" can be defined as alternative media, and in this regard, so we can notice a very important link that exists between terrorists and pre-defined alternative media. Also, it is very unlikely that a terrorist group will exhibit relative indifference to the media in general, especially to the Internet, which has become the most widely used means of communication among terrorists.

A third relational mode is that of *media - oriented strategy*. Here, the actors not only anticipate that the media will expand upon their words and deeds, but go much further in a calculated manipulation of what they know of media operations. Their communiqués are carefully refined and their activities programmed to account for characteristics proper to the various media they mean to provoke into action (Wieviorka, 1993:44). The concept of media-oriented communication is particularly interesting because it reflects a significant element of strategic communication that terrorists are actively using. Strategic communication is successful if it aligns three factors: message, media and audience, where under the media factor it means selecting the most suitable media that need to transmit the message at a certain time to the pre-planned audience. In order to achieve this goal, terrorists must have knowledge of the functioning of the media and ways to use it, that is, manipulate possible weaknesses in the work of the media.

The fourth kind of relationship presents a *total break* with the broader community. Hereafter, the press ceases to be a medium to be cynically manipulated, and Achilles' heel of democracy, but rather comes to be viewed as a collaborator of the system to be destroyed. Journalist become enemies for the same reasons as do the other actors involved – the owners, judges, teachers, businessmen, diplomats, etc. Media employees were often targeted by terrorist attacks while reporting from conflict areas; reporters also make extraordinary hostages since their kidnappers know well that professional solidarity has a broad ripple effect whenever it is a member of the press who is been kidnapped. Terrorists cannot accept the principles of neutrality in reporting, so for them it is better that the media keep silent if they are not already reporting on a way that suits them (Wieviorka, 1993:44-45). Even in a situation in which terrorists perceive the media as enemies, it is very difficult to deny the existence of relations between the media and terrorism. Attacks on the media guarantee the media coverage of this act, it is not the way to create media silence. Thus, the cause of the attack on the satirical magazine "Charlie Hebdo" in France in early 2015 was the display of caricatures of the Prophet Muhammad and other Muslim leaders. This event was accompanied by great media attention, empathy towards the French came from all over the world in the



form of a message „Je suis Charlie”. There is a clear question: what advantage did the terrorists have from this attack, since a negative campaign against jihadism has been launched? If we take into account that the jihadists are significantly radicalizing the existing Muslim population around the world, this attack has been calculated to create resistance to the Muslim population in France. The goal was to polarize the audience, and then point to the Islamophobia and discrimination that Muslims are seeing around the world. So, the terrorists attacked the journalists but did not break with the media, they counted on the reaction of the media and the emergence of a negative campaign from which they expected great profits. Wilkinson believes that terrorism and the media enjoy a symbiotic relationship, because terrorism by its very nature is a psychological weapon that depends upon communicating a threat to the wider society. Evidence of the nature of the symbiotic relationship between terrorism and the media we can find in the following assertions:

1. Terrorists survive thanks to publicity;
  2. the media in an open society are in a fiercely competitive market for their audiences, are constantly under pressure to be first with the news and to provide more information, excitement and entertainment than their rivals which enables their exploitation and manipulation (Wilkinson, 2006:147).
- Hoffman also argues that between terrorism and the media there is a symbiotic relationship following the genesis of the three revolutions in communications that had a direct reflection on terrorism. The first revolution was played in the 19th century by the invention of a printing press on a steam engine that allowed the printing of newspapers in large numbers. Hoffman believes that the above-mentioned symbiosis was created in this period, as evidenced by the example of the Russian "People's Will" and their contemporaries of anarchists, who used newspapers to convey a message to a large circle of people. The second revolution took place in 1968 when the first US satellite was launched, through which the rapid transmission of news became possible. Since then, terrorists have been focused on US citizens, aware that they will draw the attention of the American media who have the ability to reach a large number of people (Hoffman, 2000:122-123). The Third Revolution happened at the end of the 20th century and it referred to changing the way news are broadcast on the "all news at all times" system. Hoffman describes this style of broadcasting as "SNN Syndrome" with the comment that "SNN is going ten minutes before the NSA" comparing this media house with one of the most important US intelligence agency (Hoffman, 2000: 135).

The transformation of terrorism itself, the advancement of technologies that enable communication at great distances and inventions that have influenced the way news is transmitted indicate that today it is difficult to find arguments that would deny the existence of a symbiotic connection. The often quoted assertion that "food of terrorists is publicity" is adequately described by the given interrelation. The media transmit the activities of terrorists in real time and at the same time tend to maintain a significant level of objectivity and neutrality. On the other hand, terrorists must ensure a great echo of a certain activity, so they will direct attacks to places that will provide them with great media coverage<sup>3</sup>. It is clear that by transmitting the news, free media at the same time does not share the values and ideals of terrorists, but they can be susceptible to exploitation and manipulation. Jihadists saw the benefits of using strategic communication, and they learned techniques of this kind of communication. The mass media and especially the Internet have become the key enablers and the main strategic communication assets for terrorists and have ensured them a favorable communication asymmetry. With these assets, terrorists are able to compensate for a significant part of their asymmetry in military might (Bockstette, 2008:5).

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<sup>3</sup>The terrorist attack in Paris in 2015 caused great media attention and empathy around the world. In the same week, a terrorist attack happened in Beirut, in which 43 people were killed. That attack hadn't been covered by media, as well as most of the attacks that took place in the Middle East and Africa. One of rarely activity that had been covered by media in Africa was the abduction of 276 girls by Boko Haram. So, terrorists have learned an essential lesson - attacks on American and European cities are providing more of media attention, as we saw in New York, Madrid, London, Paris, Nice.

#### 4. The role of the media in the transformation of "Old" into "New" terrorism

The term terrorism have been securitized and identified as the greatest security threat to the modern world. However, terrorism is not a product of modern times, but a dynamic category that changes its characteristics in accordance with the development of society. In this research, the emphasis is on the role of the media in the transformation from "Old" into "New" terrorism.

Many scholars, government analysts and politicians claimed that since the mid-1990s terrorism has changed into an inherently new form with new characteristics. Terrorism was said to involve different actors, motivations, aims, tactics and actions, compared to terrorism experienced before. In order to capture these supposed developments they articulated new concepts and predictions of terrorism. (Spencer, 2010:8).

"Old terrorism", according to Spencer, had a greatest momentum in the period between the late 1960s and the late 1980s. Those "traditional" terrorists are classed to have predominantly secular motivations and a rational political reason for their acts of terrorism. Connected to this, it is believed that the tactical use of violence by 'old terrorists' in general was 'targeted and proportionate in scope and intensity to the practical political objectives being pursued'. It is thought that 'old terrorists' did not want to use excessive indiscriminate violence themselves as this would reduce their claim of legitimacy and alienate them from supporters, therefore reducing their access to new recruits and funding. They were targeting the leading politicians, government officials, members of the aristocracy, military or banking sector or other symbolic targets such as government buildings. A further widely accepted characteristic of 'old terrorism' is its association with state sponsorship or support. Although authors can present little evidence, 'old terrorism' was considered a cheap method of attacking and damaging. Finally, supporters of this 'old terrorism' idea highlight a clear hierarchical organization with fairly well-defined command and control structures as a central characteristic of this kind of terrorism (Spencer 2010: 10-12). Laqueur similarly determines "Old Terrorism", but he calls it as "traditional terrorism": "Traditional terrorism, whether of the separatist or the ideological (left or right) variety, had political and social aims, such as gaining independence, getting rid of foreigners, or establishing a new social order. Such terrorist groups aimed at forcing concessions, sometimes far-reaching concessions, from their antagonists" (Laqueur, 1999:81).

We can notice that the media are not analyzed as a separate factor, but that they permeate each of mentioned characteristics of terrorism. The media played a very important role during the "Old" terrorism, and media coverage was a key requirement for the success of the large number of terrorist attacks. Terrorist attacks on individuals who represent the symbols of the ruling structures in the country had provided great publicity. At that time it hadn't been possible to address and radicalize via the Internet and social networks, so media coverage via television, radio and press was an important channel for transmitting messages to a broad auditorium, providing support and for recruiting new supporters. Terrorism was directed to, as Jenkins observes, at those who watch it, so terrorists have publicly taken credit for the attacks, a mounted request after they made hijackings<sup>4</sup> or explained the reasons of why they resorted to such an act.

The period of "New Terrorism" begins in the mid-1990s, and the bombing of the World Trade Center in New York in 1993 as well as the sarin gas attack in the Tokyo underground by the Aum Shinrikyo cult in 1995. In contrast to the 'old terrorist's' national or regional political grievances 'new terrorism' strives for a global revolution, growing religious fanaticism, excessive and non-selective violence with the possibility of using weapons of mass destruction, growing independence from sponsoring states, the use of global communications networks and new technologies, and a less hierarchical organizational structure (Spencer 2010:12-15). Laqueur also points out to a different character of terrorism: "The new terrorism is different in character, aiming not at clearly defined political demands but at the destruction of society and the

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<sup>4</sup>In that period, began competition between the media who will first report on the news, and there was a paradoxical situation, as Hoffman observes, that journalists had to "find" and "create" news to justify the costs and their continued presence during the long-term hostage crises (Hoffman, 2000: 119).

elimination of large sections of the population” (Laqueur, 1999:81). Therefore, the emphasis is on the fact that "New Terrorism"<sup>5</sup> is characterized by a greater use of violence and non-selectivity of attacks.

We can notice that in the "New Terrorism", the use of global communications networks has been identified as a separate factor. The advancement of technology and easier communication, especially through the Internet, signify an important factor that has allowed the emergence and development of transnational terrorism, as it is also termed "New" terrorism. The new media, in particular the Internet, enable the achievement of essential preconditions for the operation of terrorists: the provision of financial resources (whereby terrorists no longer depend solely on sponsorship countries), radicalization (the occurrence of self-radicalization is more frequent), recruitment and mobilization, multiplication and linking of terrorist groups, the exchange of information among terrorist groups, planning and coordination. In the framework of "Old" terrorism, terrorists have sought to create publicity, but now their aspirations have increased and one of their goals is becoming the conquest of the global media space. That is the reason why today we are talking about the emergence and development of the so-called media-oriented terrorism.

The idea of the need to make a distinction between "Old" and "New" terrorism has its own critics. Nobody disputes the fact that there have been some changes in terrorist activity over the past century, but these changes must firstly be precisely determined, and then examine whether they signify the transformation of terrorism, or only the next phase of its historical evolution. Marta Crenshaw states that today's terrorism is neither fundamentally nor qualitatively new, but that the resulting changes should be analyzed in a wider historical context<sup>6</sup>.

Due to the importance that the media have in terrorist activity, every attempt to redefine the notion of terrorism requires analyzing the role of the media. Terrorists pay great attention to media and strategic communication when determining the mode of operation, which suggests that qualitative changes in terrorism are most pronounced in the media field, and this field needs to be explored more closely. Therefore, the question is no longer whether there is a relationship between the media and terrorism, but in what way the media and media coverage influence on the transformation of terrorism itself and the modus operandi of terrorists

## 5. Media response to terrorism

With the increased media influence on terrorism arises the question how media should respond to terrorism. Reporting methods and selected information that are transmitted to the public defines the role of the media in this process. The media have the freedom to choose the way in which they will report on terrorist actions, and how they will analyze the motives and reasons of the attack, the consequence of the terrorist act, the counter-measures taken by the state. The two diametrically opposed ways of reporting are when the media is striving to provide support to the government of its state that has undergone a terrorist attack, or to discredit it. Journalists, editors, broadcasters, and even the publishers of online newsletters clearly have obligations in their reporting of terrorism-related news, obligations that are not only "ethical," but also moral, since what they report or do not report may make the difference between life or death for thousands of people (Biernatzki, 2002: 21).

<sup>5</sup>The authors who supported the existence of this distinction did not agree on the identification of characteristics that distinguish the "Old" from "New" terrorism. So, Mahdi states that the key differences between "Old" (traditional or national) and "New" (transnational) terrorism are related to territoriality, motivation and individualisation (Mahdi, 2010:5). The accent is placed on the fact that New terrorism is no longer linked to one state, that terrorists find motives for action in religious fanaticism and that the target of attack can be any one: women, children, different ethnic groups.

<sup>6</sup>See the wider: Crenshaw, M. (2003). „New“ versus „Old“ Terrorism, *Palestine-Israel Journal*, Vol 10, No 1, доступно на: <http://www.pij.org/details.php?id=80>

Jurišić and Šapit state that there are several major political options in democratic societies regarding media reactions to terrorism:

1. The first is politics called *lasses-faire*. This implies that no special media coverage measures should be taken, however serious or fatal terrorist threat is.

2. The second politics option are different kind of *media censorship or legal regulation*. Given the great power the media have, it is not surprising that some countries, faced with serious terrorist attacks, have sought to deny terrorists direct access to the media. It is generally acknowledged that it is necessary to avoid the media running the terrorists, but if media freedom is sacrificed in the name of the fight against terrorism, terrorists are allowed to break one of the key foundations of a democratic society.

3. The third politics option is the approach advocated by responsible media organizations, the so-called voluntary abstention, in order to avoid the danger of exploitation and manipulation. Many major media organizations have adopted guidelines that bind on deliberate, conscientious obedience and restraint in covering terrorism, a voiding the provision of platform to terrorists, and disturbing government communication (Jurisic, Sapit, 2005: 122-123).

The media plays a central role in the calculus of political violence and they are put into positions where they can magnify or minimize these kinds of acts and their perpetrators. Under this light, the Bilgen gave recommendations on how to minimize the media-related effects of terrorism:

1. *Desecuritization* – There is no doubt that terrorism must be reported. However, the way the events are framed and the extent to which it is covered is also important. It is of high importance for the media to reevaluate and change its rhetoric when covering the terrorism-related news and stories. Just as the security elite can desecuritize issues in international affairs through speech-acts, media can adopt the same approach and desecuritize terrorism-related acts and stories through covering those incidents just as any other story in a more responsible and less “sensational” manner.
2. *Objectivity* – The media should have a conscious sense of its responsibilities to the public, as one of the goals of terrorists is to shake public confidence in their own security. Thus, objectivity and bipartisanship should be key when reporting a story. The media should present both sides of the story to the audience fairly and accurately without bias, so that the audience can make their own opinion of the news and/or story independent of the media’s negative influence.
3. *Clarity* – Since a critical part of counterterrorism is information warfare, it is among the goals of terrorists to misinform the public and exploit the uncertainty and suspicion emerged afterwards. Given these, the media should provide the clearest, most factual, and most balanced information to the extent it is possible to prevent the misinterpretation of terrorism-related incidents by the public and government officials who can possibly make suboptimal decisions regarding the countering moves.
4. *Selective use of soft power* – Even though some advocate the use of media tools for propaganda against terrorists, this is generally fruitless, given that the media has certain limits and legal and moral obligations, and it is also counterproductive, as media propaganda amplifies the perceived power of a terrorist organization. Instead, media can be employed as a public affairs and public diplomacy tool instead of a propaganda tool to influence foreign publics and potential recruits.
5. *Differentiation* – Since no terrorist group is alike, the media should differentiate between different types of terrorism and terrorist groups in order not to provoke and mobilize public against certain ethnic and/or religious minorities.
6. *Counter cyber-terrorism* – The age of the Internet has brought an age of online terrorism and enabled terrorists to use the web to recruit, raise money, and spread their messages. Even though the regulation of the media, specifically the Internet, presents a fundamental dilemma due to the inherent tension between censorship and the democratic tradition of free speech, privacy, and press freedom, it is crucial to take countering measures against the cyber activities of terrorists. These measures can include tracking their activities on online forums, following their conversations and activities on social media, and prevent the spread of radicalizing materials from specific websites. In addition to that, enacting laws at national level to punish the ones using the Internet to provoke the public, recruit and train, and propagandize can identify terrorists and prevent a potential attack.
7. *Government assistance* – Governments can give assistance to media organs by giving the political context and background of any terrorism-related act or story, as it is ideally the ultimate goal of the

media to correctly inform the audience. To this end, a government-media partnership that is better informing the public, refuting the arguments of terrorists, and depriving them of the publicity they need can be formed (Bilgen, 2002).

In reporting on terrorism, the media need to find a balance between freedom and responsibility for information, between the right to know and the duty to protect themselves, while respecting the basic norms and values of journalism. Terrorism particularly puts the classical pillars of journalistic ethics to the test: the pursuit for the truth, independence, responsibility to others, transparency (UNESCO Handbook for Journalist, 2017: 28-30). The media and journalists have a responsibility in covering a terrorist attack, and they are faced with a lot of challenges as first-line media, interaction with terrorist groups, journalist security. In such situations, sensationalism must never prevail over the ethics and principles of journalism.

## 6. Conclusion

The term terrorism have been securitized so it represents the greatest security threat to the globalized world. Although significantly more people die of hunger or illness annually than the number of those who die in terrorist attacks, terrorism is perceived as the greatest danger, a social evil directed against innocent victims. Most people do not have a direct experience with terrorism, so their reality covered by the fear that anyone can become a victim of a terrorist attack, is constructed thanks to the knowledge that comes from the media. This places a great responsibility on the media whose reporting directly influences opinion and behavior of the public opinion. The public's interest in monitoring this phenomenon directly influenced the media's great attention to cover the terrorist activities, and media are often accused of encouraging and promoting terrorist activity.

To ensure media coverage of their actions, terrorists perform spectacular attacks primarily in Western countries. In this way they rely on poor tolerance of the West to human sacrifice and fear that will generate pressure on the government to make political exception. Therefore, it is difficult to find arguments that will deny that there is a symbiotic connection between the media and terrorism.

Terrorists are aware of the fact that they are an actor in an asymmetric conflict that has less military and economic power, and in order to achieve goals they focus their resources on the use of knowledge and innovation. For this reason they rely on the media in their actions and actively apply strategic communication, which shows that it is important to use modern communications for the transmission of information. Communication can be used to influence the behavior change of the audience and to persuade it to act in accordance with the intended goal, and terrorists actively use it.

The significance of the media for the achievement of the terrorist goals has resulted with the situation that terrorism becomes a media phenomenon. However, the fact that terrorists adapt their strategies to media performance and in the successful implementation of strategic communication by media in achieving their goals indicates that attention needs to be focused on the analysis and understanding of the concept of media-oriented terrorism. Terrorism have been transformed primarily thanks to influence of media, so that without understanding of how the media are function, it is not possible to understand contemporary terrorism.



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## CRITICAL INFRASTRUCTURE PROTECTION IN TRANSFORMED SECURITY ENVIRONMENT

**Abstract:** Inclusion of the concept of critical infrastructure protection as an important element of the national security reflects wider changes in the security discourse. In the last quarter of the century, the security perspective has changed and widened, as the targets are understood not to include only the military ones, but other “weak spots” as well. Among such weak spots is critical infrastructure, which represents both physical and logical assets of vital importance for normal functioning of state and society. Accordingly, saving the facilities, objects or networks themselves are not the main goal of our protection efforts, but rather the vital services they offer to the nation, thus ensuring the functioning of the state and the economy, as well as the welfare of its citizens. On the other hand, the emerging threats and hazards transform the environment in which those infrastructures operate. In this paper we will address four of such challenges relevant for the Republic of Serbia – climate change reflecting in the ever increasing frequency of extreme weather conditions, private ownership of critical infrastructure, threats stemming from the cyber world, and the irregular migrations on the so-called “Balkan Route”.

**Key words:** critical infrastructure, corporate security, security environment, risk management, national security.

### 1. Introduction

Critical infrastructure is essential for securing and providing vital societal functions, including the health, safety, security, economic and social well-being of people ( Directive 2008/ 114/EC). Critical infrastructures are often characterized as “the backbone of a modern society”, and well-functioning critical infrastructure as a prerequisite to national security. Primarily, what is critical basically is business or operational continuity of the infrastructure, and not the physical assets themselves. Critical infrastructure are physical and virtual assets, processes, facilities that provide fundamental services and they play a vital role in the country’s economy, health and security. It can be a stand-alone system with a significant influence in a specific region or it could be a variety of interconnected systems located across several regions as well as an entire country or even several countries, where a disruption of even one of those elements could cause a chain reaction of failures, that could completely paralyze the region or the entire country as well as it could result in a life-threatening situation. In general, the critical infrastructure plays a vital role in the life of a country and its citizens and it includes transportation, telecommunication, agriculture, healthcare, educational systems, government and emergency services.

Contemporary challenges to the security of critical infrastructure, and consequently national security, seem to stem from the increased amount of uncertainty in the world. Events affecting the continuity of critical infrastructure services may come from accidental man-made or technological incidents, natural disasters, man-made willful acts and (inter)dependencies. Namely, modern infrastructures, and particularly

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the critical ones, operate as systems of systems with many interactions, interconnections and interdependencies among these systems. Thus, damage in one infrastructure system can cascade and result in failures and cascading effects onto all related and dependent infrastructures eventually impacting the community and the broader economy.

Another point worth mentioning is that during the process of transition from one political and economic system to another, countries in transition face numerous problems that do not exist in stable democracies. Those problems also increase threat levels and negatively impact the vulnerability of the protected systems. One of those problems, tightly connected with the low economic growth rate, is outdated technology in comparison with the developed countries. (Mihaljević et al, 2013) Also, the majority of countries in transition do not have clearly identified sources and forms of danger to their critical infrastructure, and also the definition, identification and prioritization of critical infrastructure sectors and assets is, more often than not, lacking. Worn out and outdated infrastructure cannot successfully respond to the EU and NATO standards and regulations. (Kešetović et al, 2013) Outdated critical infrastructure protection programs, dating back to the age of socialism and based on the Cold War postulates (according to which the military sources and forms of security jeopardizing are the dominant ones), cannot answer to contemporary security risks, in particular non-routine ones and those coming from the asymmetric threats. Contemporary threats and hazards are aimed not only at the nation-state, but they also appear in the form of cyber crime, economic espionage etc. Threat agents may be terrorist groups, hackers, organized criminal groups, but also regular companies and corporations.

Private security is closely related to critical infrastructure protection as a great number of them are under the protection of private security companies, whether they are in-house or outsourced. In the Republic of Serbia, in spite of the existing Private Security Law, this field remains in the grey area, given the poorly tailored and implemented tender procedures. This problem is additionally hindered by inefficient private-public partnership. Nowadays a significant part of critical infrastructure is privately owned or in the process of privatization, with the cooperation between infrastructure owners and operators and public institutions still not reaching satisfactory levels. (Kešetović et al, 2013) Last but not least, rapidly changing geopolitical environment with the “by-product” in the form of refugee crisis is also something that can potentially have an impact on the critical infrastructure security, i.e. continuity of the deliverance of critical services and products.

## 2. Transformed environmental conditions

Changing environmental conditions, including climate change, affect both living species and socio-technical systems alike in various ways. Extreme weather events are weather events that are rare for a particular area or season, usually at the extremes of the complete range of weather experienced by an area in the past and include events such as floods, droughts, extreme temperatures and precipitations and storms (National Academies of Sciences, Engineering and Medicine, 2016). For the Republic of Serbia, statistic data show that in the past the most frequent natural disasters are: floods (40%), tropical cyclons (20%), earthquakes (15%) and draughts (15%) (Gavrilovic, 2007).

Climate change risks are typically defined as or described in terms of the probability of the occurrence of the extreme event multiplied by the impact this may cause. (Kaspersen, 2018). As critical infrastructure is involved, vulnerability of the infrastructure and exposure to threats/hazards are also a major factor. Risk of climate-related impacts results from the interaction of climate-related hazards with the vulnerability and exposure of human and natural systems, including their ability to adapt. Due to the meteorological influence, an amount of uncertainty is also inherent to climate change. Uncertainty in climatic phenomena

includes natural fluctuation due to the unpredictability of weather and various induced anthropogenic factors. Several types of risk assessment methods are employed globally to identify hazards and evaluate risk in relation to critical infrastructure protection. (Giannopoulos et al, 2012, Yusta et al. 2011)

Extreme weather conditions have become more frequent and the increase in their frequency is expected as climate change ramifies. Instances of such events are reported throughout the world and include heat wave in Russia in 2010, Pakistan floods in 2010, drought in California, “May floods” in Serbia in 2014, and many others on the most distant locations on the globe, affecting millions of people. Due to the increased interconnectedness of modern societies the impacts created by the changing climate can propagate and create cascading events and stresses (IPCC, 2012).

Anthropogenic emissions of greenhouse gases (GHGs) have led to an increase in global mean temperature by 0.87C since pre-industrial times (Met Office UK, 2016). This temperature increase affects critical infrastructure in many ways: through warmer and more frequent hot days in summer-peaking regions, an increase in tropical nights (minimum temperature exceeding 20C), and water availability along with its temperature. For instance, electricity transmission is less efficient during hot days due to the additional resistance induced, in tropical nights critical infrastructure assets (especially those that form part of the energy sector) cannot cool off sufficiently during the night leading to service disruption or breakdown of critical infrastructure assets, etc.

As climate change leads to an increase in atmospheric moisture content, the likelihood of extreme precipitation and the risk of flooding increase, with associated physical impacts on critical infrastructure assets such as power plants, transmission substations, highways, railway tracks etc. In addition, extreme precipitation may affect hydropower generation, as most current dams were built without taking into account the possible impacts of climate change. (Mikellidou et al, 2017) On the other hand, droughts and reduced water supplies are likely to occur, thereby worsening current water and food supply conditions, leading to potential shortage of food and water, service disruptions, civil unrests and other potential and unexpected events. Further, drought along with rising temperatures heighten the risk of wildfires limiting the transport options, jeopardizing telecommunication infrastructure and limiting the amount of electricity that can be generated and transmitted (USGAO, 2014).

Understanding interdependencies among critical infrastructure assets and sectors is vital, particularly in times of disruptive events or crises, whether they can be classified as anthropogenic or natural ones. For instance, a flood can affect natural gas infrastructure, and this may cause a failure in a failure of an electric utility’s generating unit located in the service territory of the gas system, which further may result with a shortage of electricity generation in an area. (Mikellidou et al, 2017) A well documented example of the impacts of cascading effects as a result of the interconnections across different CIs is Hurricane Sandy in 2012. In Serbia, “May floods” in 2014 have caused huge impact with the biggest losses recorded in the energy sector, especially in the electricity generation subsector. Two major coal fueled thermal plants “TENT” and TEKO Kostolac, with the belonging coal mines were in particular threatened by the overflowing Kolubara and Mlava rivers.

### 3. Transformed technology environment

The complexity of modern infrastructures is a topic of a high interest for legislators, government, critical infrastructure owners and operators, security community and many other stakeholders. This complexity has been further exacerbated by the development and use of informatics systems. The introduction of computers has begun during the technological revolution triggered by the introduction of the IBM 360 in 1965 and model 370 in 1970 as pioneering general purpose business computer systems that provided

businesses with an integrated single management information system, and nowadays it is difficult to imagine any business process that is not, at least partially, computerized.

Critical infrastructures are increasingly interconnected with computers, smart sensors and networks of computers has added another layer of complexity to their operative and continuity lifecycle (Lazari, 2014). This new layer has changed the way the protection of these infrastructures is organized and also what is adequate in the struggle for their protection. In addition, this move towards greater involvement of ICT systems has shifted some risks from the physical to the logical sphere.

First and foremost, it should be kept in mind that ICT systems are not infallible. Hardware and software failures are a rather normal occurrence triggered by various reasons, usually due to the errors in the design, implementation or misuse of the informational and control systems. The ubiquitous usage of computer system has added another layer of vulnerabilities to the infrastructure. Those vulnerabilities can be exploited for acquiring unauthorized access to the information or causing damage to the production and service processes. Furthermore, occasionally the damage and crises are exacerbated by the fact that owners and operators do not want to admit that they have been the victims of the cyber attack or that there has been a hardware or software failure, as it may be seen as the lack of reliability. (Lazari, 2014)

New developments in the ICT, such as cloud computing, the emergence of block chain technologies and cryptocurrencies may also present some challenges. For instance, recently the critical infrastructure security firm Radflow announced that it had discovered cryptocurrency mining malware in the operational technology network (which does monitoring and control) of a water utility in Europe—the first known instance of mining malware being used against an industrial control system. (Wired, 2018)

So far, large scale attacks on the Internet, usually perpetrated through DoS (Denial of Service), or extended unauthorized accesses to IT data centers have resulted with a limited damage for the societal life. However, it is quite possible that in the future such attacks may be even lethal. Simulations, scenarios and models have confirmed that the risk is highly probable. Even though previously, cyber-war could be considered as something from science fiction, after the world had learned about Stuxnet, the threat of a cyber-war is real now more than ever. So, with the appearance of such threats as Stuxnet, which can be more appropriately categorized as weaponized industrial cyber threats, the previously considered secure industrial networks are secure no more. If such kind of attack was run against an airport and turned off its equipment, it would have very serious consequences. (Fekolkin, 2015) Remote access by unauthorized persons to critical processes and SCADA systems of dams, flight control, CBRN plants or services may lead to events such as flooding, airplane crashes, water poisoning, chemical and nuclear contamination and other catastrophic scenarios. It is not unusual that lately the fields of critical infrastructure protections and cyber security have become highly connected. Most national cyber security strategies at least mention critical (information) infrastructure, whereas all critical infrastructure protections strategies tackle the issue of cyber attacks on infrastructure.

#### **4. Transformed economic environment**

In the past national security entailed primarily the protection of national state and its institutions, but now it is important to include in the protection those private actors whose activities are important for national



economy and national security, as critical infrastructure imminently is. Under the influence of neo-liberal ideals such as New Public Management, the ownership, operation, and maintenance of many Critical Infrastructures have been divided among an increasing number of public as well as private actors. (Cedergren et al, 2017) Even though the private sector can better address some issues than the state, with the providing protection from serious threats the state institutions will still have to intervene. So empirical studies in the developed countries showed that once disruptions occur, response and recovery operations are often complicated and time-consuming. Multiple actors with diverse roles and mandates are involved in the operations, which prompts a need for communication and coordination. (Cedergren et al, 2017) There is also a prevalent thought that the ability and will of private sector to ensure optimal level of protection is low, due to the high costs associated with protection, even though such claims may convey more political attitude and the rootedness continental political tradition than the actual facts.

It is undeniable that the state represents the central point in any system of critical infrastructure protection. The state's biggest interest is, in fact, that critical infrastructure, irrespective of the ownership structure of a critical infrastructure facility or network, operates continuously, thus ensuring the smooth functioning of the community. (Čaleta, 2016) From this perspective, it is necessary to put the understanding of the situation and the measures into awareness raising and proper understanding of the importance of critical infrastructure in the strategic management of the state and its institutions.

In the majority of developed countries around 80% of CI is privately owned. In the western world private ownership of critical infrastructure is perceived as vehicles for the long-term structural development of infrastructures including their level of security, bringing together "profit motives" and distinct advantages of investment in corporate security sector. Although for Serbia and the Western Balkans region precise figures do not exist, that percentage is undoubtedly lower. However, the increase of the percentage of privately owned CI facilities is expected, taking into account global trends of market liberalization. (Keković et al, 2015) As in this case we leave the field of simply "national security" and enter the realm of profit, the entire business world faces the dilemma about justifiable and non-justifiable investments related to the increase of the security level. In that regard, the importance and development of public-private partnerships are crucial. It can only be built through the relevant system-related measures, starting with the increasing awareness of the importance of a comprehensive approach to managing risks related to the functioning of a specific important infrastructure facility or process, used either in a public or private environment. (Čaleta, 2011) Also, the fact that a large chunk of critical infrastructure is in private hands means that the state depends largely on the exchange of information and joint measures with all the participating partners.

In the Western Balkans the awareness of all-hazard approach is at a very low level, especially in the private sector, which may represent a serious obstacle for the establishment of successful public private partnerships. Among hazards that private companies rarely consider is terrorism, in the region connected with local organized crime groups and exacerbated by the geopolitical situation in the Middle East that caused humanitarian disasters, which further created a tide of refugees and economic migrants. In addition, the strategic management in companies needs to take into account the privatization trends in security and, more often than not, questionable quality of the service that private security companies offer. Unfortunately, all the countries in the Region are always one step behind the multinationals and lag behind with the legislation.

## 5. Transformed (geo)political environment

Another aspect of the transformed security environment represents global geopolitical changes. From the beginning of the XXI century moving from the unipolar to multipolar world has caused significant changes at the regional and local level. During the 1990s the infrastructure was jeopardized by military threats of warring parties in the Balkans' wars. Later, the NATO bombing in 1999 seriously damaged energy, transport and informational-communication infrastructure. The 90's conflicts impoverished the region which led to the reduced infrastructure investment, its unreliability and the problems with the continuity of delivery of products and services critical for the normal functioning of the economy and the society.

However, in the last fifteen years the infrastructure is prevalently in risk of non-military threats. In Serbia, as in other countries in the region, critical infrastructure assets are target of both global powers and regional rivals. That risk is different, as they do not aim to destroy the assets, but to use them to either gather intelligence, or to exert their influence over the host country through the ownership or control of the most important national economic, cultural and technology assets.

The new "Cold War" between the "West" and Russia has exacerbated these issues. In addition, other global and regional powers, such as China and Turkey are active participants. It is not a secret that all those parties aim to enlarge their presence at the markets especially in the critical sectors of energy (Russia), ICT (USA), and transport (Turkey, China), through which they further their own agenda, political and economic interest.

One of many "by-products" of the global "geopolitical warming" is the Migrant crisis. The number of international migrants reached 244 million in 2015, including almost 20 million refugees. The wave of demonstrations and protests, riots and civil wars known as The Arab Spring (Arabic: **ربيع عربي** ar-rabī' al-ʿarabī) and escalation of Syrian crisis in 2011 were trigger events for a great migrant flow from the Middle East and Africa towards Europe that intensified in 2014 and reached almost unimaginable dimensions during 2015. In fact, the 2013 United Nations projected number of migrants was largely surpassed in 2015, accompanied with equally high growth rate. Only two years ago, it was assumed that the total number of migrants on the global level would reach a maximum of 237 million, which represents a drastic increase in comparison with the year 1990, when the total number of migrants amounted to "only" 154 million (Simeunovic, 2015). Every attempt to quantify the number of migrants can give only a momentary and shaky figure that may be outdated after several days.

A significant number of migrants cross the borders illegally. Towards the end of 2014, detections sharply increased at the Hungarian and border with Serbia, making the Western Balkan route (with 43.357 detections) the third most important irregular migration route towards the EU (FRONTEX, 2015). Illegal migrations are occasionally portrayed as a threat to political and economic security, among others. They disrupt the security of national borders, cause dissent among the native population and present an additional economic burden to the society. In addition, the migrant pressure creates tensions between the neighboring countries located at the same route, as was the case between Serbia, Hungary and Croatia in 2016. Nevertheless, it is difficult to envisage a scenario in which migrants could represent a direct threat to any critical infrastructure asset, but indirectly the use of migrations as a geopolitical tool can have serious impacts on the economic and security environment in which the critical infrastructure operate, or rather in which critical services and products are delivered.

## 6. Conclusion

It is generally taken as a rule of thumb that an all-hazard approach should be taken in critical infrastructure protection. The best way to address “all hazards” is to improve the resilience of critical infrastructure. Generally it means to enhance their, or the society’s way to “bounce back” after an adverse event and to recover the delivery of critical products and services as soon as possible and as with little impact as possible.

Not only all-hazard, but also all-stakeholder approach is needed. In order to achieve a satisfying level of critical infrastructure protection and resilience it is necessary to involve as many stakeholders as possible, as partners in the national CIP framework. A holistic approach to the critical infrastructure protection is based on the cooperation between state institutions, corporate, non-profit and academic sectors and the general population. A multi-partner model is necessary for thorough deliberation about security risks, coordinated prevention and incident response, awareness raising, institutional capacity building and the use of networks of international contacts for cooperation and support. Knowledge from the various walks of life and differing perspectives may help to better anticipate and better respond to crises and disasters, but it should be kept in mind that in involving large number of participants, untimely and inadequate communication can exacerbate the problems.

Critical infrastructures are often portrayed as complex adaptive (or evolving) systems. In simple terms, in order to survive they need to adapt to the changing environment or evolves together with the environment, without the explicit “top down” pressure. The better and faster they adapt to and evolve with the changes, the more resilient they are. In John Holland’s words “(...) contexts and activities are continually changing as the agents adapt. It is rare that we can even determine the utility of a given activity. The utility of the various activities of a given agent depends too much on the changing context provided by other agents.” (Holland, 1997) However, the recent changes in the security environment are such that organizations may learn to react, adapt and co-evolve quicker than ever before.

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## CRITICAL INFRASTRUCTURE PROTECTION IN RESPONSE TO CONTEMPORARY SECURITY CHALLENGES

**Abstract:** This article presents an approach to the problem of identifying, prioritizing and protecting critical infrastructure. We will present two specific approaches: system and sectoral. They have some criteria of critically, advantages and disadvantages in determining and prioritizing critical infrastructures. In determining critical infrastructures it is important to address the vulnerabilities related to the coupling of these systems are analyzed. Because of many security threats and challenges, it is difficult to protect the whole critical infrastructure.

**Key words:** critical infrastructure protection, system approach, sectoral approach, risk, vulnerability, resilience

### 1. Introduction

Today, we live in a complex, turbulent, highly networked world than never before. Twenty years ago, "critical infrastructure" was defined primarily with respect to the adequacy of the nation's public works, but the growing threats of international terrorism and natural disasters change the main of this issue, and academic and political leaders made the definition of "infrastructure" in the context of national security. Critical infrastructure is essential for the function of a society and economy. Modern society relies on the effective functioning of CI networks to provide public services, enhance quality of life, sustain private profits and spur economic growth (Boin and McConnell, 2007). This growing dependence is accompanied by an increased sense of vulnerability to new and future threats such as terrorism and climate change (OECD, 2003; Perrow, 2006).

### 2. Determining critical infrastructure

To define strategies and plans for critical infrastructure protection, it is necessary to determine what is critical infrastructure and in the framework of such a classification is prioritized most critical infrastructure. Prioritization of critical infrastructures is carried out due to the lack of resources and the inability of states to protect all infrastructure systems, so the provisions are "most critical. In the literature there are certain concepts of criticality, but the most relevant references have highlighted two approaches *systemic and sectoral* (Katina, Hester, 2001; Brown, Beyeler, and Barton, 2004; Elmore, 2014). The systemic approach is characteristic of organizations and countries that have normatively and legally and empirically defined the field of critical infrastructures and have created a strategy for critical infrastructures. The sectoral approach is characteristic for countries that have not yet defined the normative and strategic definition of this area, but will deal with critical infrastructures at the level of sectoral policies.

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## 2.1 Definitions of critical infrastructure

There are numerous definitions of the critical infrastructure created by states, organizations and scientists. We choose those three from the most developed and powerful countries and organizations.

**Table 1.** *Representative CI definitions*

<b>US Congress</b>	Systems and assets, whether physical or virtual, so vital to the United States that the incapacity or destruction of such systems and assets would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters”.
<b>European Union</b>	Critical infrastructures consist of those physical and information technology facilities, networks, services and assets which, if disrupted or destroyed, would have a serious impact on the health, safety, security or economic well-being of citizens or the effective functioning of governments in the Member States.
<b>Germany</b>	“Organizational and physical structures and facilities of such vital importance to a nation's society and economy that their failure or degradation would result in sustained supply shortages, significant disruption of public safety and security, or other.

## 2.2 Systemic and sectoral approaches

The need for a systematic approach to critical infrastructure studies is reflected in the importance of protecting critical infrastructures for maintaining national security, economy and the normal functioning of people's lives (Herder, 2003; Kröger, 2008; Thissen and Tolone et al., 2003; ASCE, 2009; Calida and Katina, 2012). System approach means a comprehensive overview of all system elements and a critical infrastructure analysis of the entire infrastructure system (Ulrich, Reynolds, 2010). Within the sectoral approach, authors and organizations define different criteria of criticality to prioritize each of the infrastructure sectors. Before choosing this approach and applying sectoral policies in designing protection plans, critical sectors should be identified. Sectoral approach and bottom-up approach to critical infrastructure protection are considered fundamental and most often applied due to the large differences in the functions, structure, scope and nature of each infrastructure sector (Gordan and Dion, 2008).

**Table 2.** *Advantages and disadvantages of the systemic and sectoral approach*

<b>Approach/ characteristics</b>	<b>Systemic approach</b>	<b>Sectoral approach</b>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>- Interdisciplinary,</li> <li>- accepting the dominance of the whole over the elements from which it is composed,</li> </ul>	<ul style="list-style-type: none"> <li>- pay enough attention to details,</li> <li>- flexibility</li> </ul>
<b>Disadvantages</b>	<ul style="list-style-type: none"> <li>- it does not pay enough attention to details and details,</li> <li>- Lack of flexibility and creativity.</li> </ul>	<ul style="list-style-type: none"> <li>- Oriented only on certain risk and sector.</li> </ul>

### 3. Criteria of criticality

There are several criteria used by different organizations for identifying and prioritizing infrastructure systems and their sectors. Common criteria of criticality for system and sectoral approach are: risk, vulnerability and resilience (Haimes, 2002; Katina and Hester, 2011).

#### 3.1 Risk

The risk is defined as the probability of the occurrence of a negative event and its consequences (ASCE, 2009). Roper defines risk as the “probability of loss or damage, and its impact” (Roper, 1991:73). In assessing infrastructure *risks* due to manmade events (i.e., terrorism), Baker et al. (2002) proposed the use of a classical risk analysis method based on *threat*, *vulnerability*, *resilience* and *consequence* (Fig. 1).

Risks can be reduced in a number of ways (Moteff, 2005):

- by reducing threats (e.g. through eliminating or intercepting the adversary before he strikes);
- by reducing vulnerabilities (e.g. harden or toughen the asset to withstand the attack);
- by reducing the impact or consequences (e.g. build back-ups systems or isolate facilities from major populations).

Fig. 1: Overlapping regions of high threat, vulnerability, and consequence great security **risk**



Source: Linacre, 2005.

For Smith (2001: 55): Risk assessment “involves evaluating the significance of a risk, either quantitatively or qualitatively”. He conceptualizes: risk = hazard (probability) x loss (expected): preparedness (loss mitigation).

Based on Kates and Kasperson for Smith (2001: 59) risk assessment comprises three steps:

1. The identification of local hazards likely to result in disasters, what hazardous events may occur?
2. The estimation of the risks of such events, that is, what is the probability of each event?
3. The evaluation of the social consequences of the derived risk, that is, what is the likely loss created by each event?

#### 3.2 Vulnerability

During the Cold War period, the concept of vulnerability was widely used for technical systems (e.g. of the land based strategic deterrent with regard to both intercontinental bombers and fixed land-based ICBMs), critical military and command, control and communication infrastructure but also of urban centers and the highly sensitive industrial and transportation systems (Brauch, 2011).

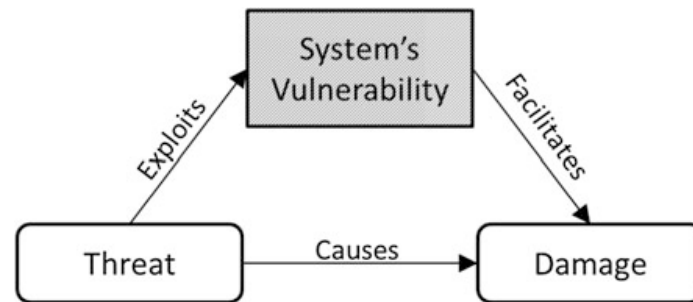
No one accepted the definition of vulnerability (Vamanu et al., 2016). In fact, the context of the definition of notion of vulnerability appears to be driven by issues of technical, economic, social, and political security policies (Ibid., 2016). In many definitions vulnerability is the overall susceptibility of a system to loss due to a failure, i.e. the magnitude of damage due to a failure<sup>3</sup>, (Johansson, 2010). The main concept of vulnerability analysis is the anticipation of weaknesses in a system, i.e. identifying locations in a system where the system failures will have the gravest consequences (Taylor and

<sup>3</sup> A significant definition of the risk (in which vulnerability was incorporated) offered Crichton (1999): ‘Risk’ is the probability of a loss and depends on three elements: hazard, vulnerability, and exposure.’

D'Este, 2007). According to Johansson (Johansson, 2010) vulnerability can be seen from two perspectives: the first is to assess the overall vulnerability of a system, i.e. from a global perspective and the second is to find the critical parts or components in a system. That said, critical infrastructure systems are exposed to a myriad of operational threats, each with a unique ability to disrupt operations. (Murray and Grubestic, 2007).

The lack of a unique definition of vulnerability among other things points to the complexity of this notion and the need for further exploration. Accordingly, Jantsch (2005) defines vulnerability using a *semantic model* in which vulnerability is seen as part of a relationship between *threats*, *losses*, and *vulnerability* (Fig. 2)

Fig. 2: A semantic model of vulnerability



Source: Vamanu et al., 2016

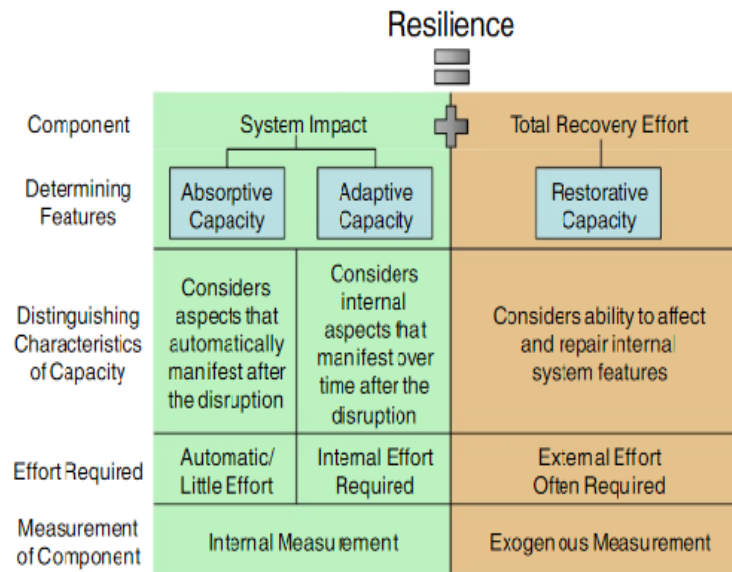
The vulnerability of the system (in this case, critical infrastructure) enables a more efficient exploitation of threats. As a result of this causal linkage in the formation of the huge damage that jeopardizes the stable functioning of society and the state. Thus, the information obtained through the vulnerability assessment to a large extent makes it possible to predict the performance of the system in case of endangerment.

### 3.3. Resilience

The concept of “resilience” is not new. Indeed, the idea has been incorporated and operationalized into an ever-increasing number of fields of study and policy domains over at least the past 50+ years (Martin-Breen and Anderies 2011). Unfortunately, mounting use of the term variously as a theoretical construct, capability, or strategy across myriad disciplines (see Norris et al. 2007), has brought with it confusion and debate about its meaning and usefulness in specific contexts, including those of disaster risk reduction and homeland security (Kahan 2013).

Resilience has become an important dimension of the critical infrastructure protection (Richter, 2015). Resilience is defined in Webster's Unabridged Dictionary as “the ability to bounce or spring back into shape, position, etc., after being pressed or stretched.” Definitions vary slightly, but they all link the concept of resilience to recovery after physical stress (O'Rourke, 2007). Martin-Breen and Anderies (2011) suggest that the concept of resilience has developed, and can be roughly classified, in three (arguably overlapping) frameworks of increasing complexity, each growing out of separate disciplinary traditions and differing units of analysis: (1) Engineering Resilience, (2) Systems Resilience, and (3) Resilience in Complex Adaptive Systems. In their engineering conceptualization, resilience is viewed as it relates to a specific asset or entity, and associated definitions variously capture the notion of “*bouncing back faster after stress, enduring greater stresses, and being disturbed less by a given amount of stress*” (Martin-Breen and Anderies 2011). Thus, figure 3. presents some basic characteristics of resilience.

Fig. 3.:Resilience capacities of a system



Source:Gopalakrishnan&Peeta, 2010.

This portion of the framework uses three system capacities to formulate how inherent properties of a system can determine system resilience, specifically by reducing systemic impact and total recovery effort ( Gopalakrishnan&Peeta, 2010 ). They are: *absorptive capacity*, *adaptive capacity*, and *restorative capacity*. These capacities are affected by *resilience enhancement features*, features of the system that can increase one or more of the system capacities (Ibid., 2010).

#### 4. Challenges in critical infrastructure protection

Damage or destruction of critical infrastructures by natural disasters, terrorism and other asymmetric threats do not guarantee change and learning (Birkland, 1997; Boin, McConnell and Hart, 2006), but they are one of the few ways in which established policies, procedures, cultures and legitimacies change course (Baumgartner and Jones, 1993). To protect the critical infrastructures of the future will require a new approach to defining threats (Hyslop, 2007). Such an approach has to both acknowledge and manage risk. A risk-based approach to Critical Infrastructure Protection (CIP) is therefore something that needs to be implemented within a Public– Private Partnership. It needs many of the same institutional controls as that exist now to be effective (Ibid., 2007).

The European Union is one of the first to recognize the importance of critical infrastructure and its protection. Reduce the vulnerabilities of critical infrastructures, the European Commission has launched the European Programme for Critical Infrastructure Protection (EPCIP). This is a package of measures aimed at improving the protection of critical infrastructure in Europe, across all EU States and in all relevant sectors of economic activity (European Commission, 2008).

Challenges in protecting critical infrastructure are:

- scope of the critical infrastructure sector, massiveness,
- lack of control and accountability in the sectors,
- interdependence,
- lack of measures and procedures for analyzing the criticality and vulnerability of infrastructure systems (Reinermann, Weber, 2003; Lewis, 2006).

Critical infrastructures are very interdependent in case that disturbances in one infrastructure can often have an impact in other systems (Rinaldi, Peerenboom, Kelly, 2001). Interdependence further complicates the protection of critical infrastructure.

## 5. Conclusion

The importance of dealing with critical security infrastructures is reflected above all in the need to create strategies and plans to protect critical infrastructure from disasters that are increasingly more frequent and difficult to predict. In order to define strategies and plans for the protection of critical infrastructures, it is necessary to determine what critical infrastructures are and prioritize the most critical in the framework of such classification. There are numerous definitions of critical infrastructures but it is not yet unified unique. There are numerous concepts and approaches used in the study of criticality and vulnerable infrastructures, but two, sectoral and systemic aspects are considered in the article. Both approaches have their advantages and disadvantages and certain criteria and specificity of criticality. Common criteria of criticality are risk, resilience and vulnerability. Critical infrastructure is difficult to protect completely because of their robustness and complexity developing resilient communities with appropriate critical infrastructure requires awareness through education and risk communication, strong, innovative leadership, effective planning, and the long-term commitment of resources to put complex systems into plans.

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## **TERRORISM PERFORMED BY MINORS IN TRANSFORMED SECURITY ENVIRONMENT**

**Abstract:** The process of globalization has generated the conditions for the emergence of modern terrorism in different dynamic forms which are hardly anticipated by the security and intelligence structures of the states. Particular attention is drawn to the public by juvenile terrorism - suicidal terrorist attacks committed by minors. Child indoctrination is a process preceding a terrorist attack carried out in several phases, with the ultimate goal of creating suicide attacks that instigate minimal attention to potential victims as well as intelligence services before committing a terrorist act. Supporters of religiously funded terrorism often use minors to make modus operandi unpredictable and achieve their ultimate goals of action. Combating these forms of terrorist attacks requires great efforts in intensifying cooperation between states and international organizations, primarily in the field of intelligence and cooperation of law enforcement agencies.

**Key words:** minors, terrorism, security, globalization, economy;

### **1. Introduction**

Contemporary terrorism as a product of globalization began to abuse segments of the society to which it is the most vulnerable - children. Although there is a global consensus that prohibits the participation of children in conflict, this phenomenon has become a regular practice and everyday life in contemporary conflicts.

Recruitment of minors as participants in armed conflicts and terrorist attacks is one of the serious violations of the norms of international humanitarian law. Except that it is contrary to general practices in the last four millennia of warfare, there are a number of contracts that try to ban this today. At the international level, there are codified laws that regulate this area: Universal Declaration of Human Rights (1945), Geneva Convention (1949), Supplementary Protocol to the Geneva Convention and Convention on the Rights of the Child (1989). In addition, the UN Security Council, the UN General Assembly (1977), the UN Commission on Human Rights and the International Labor Organization are international bodies that have strongly condemned this practice. There are also efforts to eradicate this practice and they are embodied in a coalition to stop the use of child soldiers that have their center in 40 countries around the world. At the regional level, the Organization of African Unity, the West African Economic Community, the Organization of American States, the Organization for Security and Co-operation in Europe and the European Parliament have also strongly condemned the use of older and younger minors.

### **2. Characteristics of terrorist acts performed by minors**

Although there are significant efforts to ban the use of minors and juvenile terrorists today, this practice has become a new, globalized doctrine of modern warfare. Today, about 80% of the armed forces in the world use juveniles under the age of 15 as soldiers in their ranks. This can certainly be a disturbing fact, but it should not be a surprise that today and children are present in the darkness of

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terrorist domains as participants in contemporary conflicts. Terrorist organizations have realized that children are easily radicalized, and that this whole procedure is cheap, while on the other hand they represent a completely new type of weapon with which they can go on their opponent. Modern suicidal terrorism is, by its very essence and cause, religiously funded terrorism, and juvenile terrorism is only a developmental branch of contemporary suicide terrorism and represents an essential evolution of religiously funded terrorism. This means that religiously funded terrorism by means of juvenile terrorism is just moving towards its ultimate goal. The method uses suicidal terrorism that was once commonly used in adult individuals (in the case of both genders). However, today this has evolved into two developmental branches, and according to the age, hazardous persons in modern suicide terrorism can be classified as: adults and minors (both sexes). The inadequate, delayed, and insufficiently harmonized fight against religiously funded terrorism has allowed it to continue to expand and expand - overflowing, carrying out indoctrination and radicalization that enables the regeneration of the terrorist network and makes it resistant to the antiterrorist struggles (Hoffman, 1988). On the other hand, it can be said that the minor is the target group of religiously funded terrorism, which was used in the early stages of development for early indoctrination and gradual recruitment by the terrorist organization. Starting from their indoctrination and radicalization, the life of this juvenile is planned out in terms of: education, military training, their mission ranging from various spheres to an agent of a terrorist organization, to a future design leader and instructors to some future organizations (Hoffman, 1988).

Crisis hot spots that have existed for a long time, and the unilateral fight against terrorism have caused the appearance of juvenile terrorism just like *modus operandi*. From this we can conclude that this is some type of umbrella that allows the terrorist organization to survive-to pursue its intentions and to defend its existence in a particular location. Through juvenile terrorism, a terrorist organization uses a minor to commit a terrorist attack, but also creates a mobile army of killers regenerating its military cadres and thus surviving. From this we conclude that juvenile terrorism is much more than a *modus operandi* and it would be wrong to define it only as a terrorist attack carried out by a minor.

Terrorism performed by minors is a tool and the true essence of religiously funded terrorism and contemporary suicide terrorism. Juvenile terrorism creates favorable conditions for mass, widespread support and the development of contemporary suicidal terrorism that is global. First of all, using the fastest spread of Islam, its dynamic spreading dimension throughout the planet, the ability to constantly indoctrinate the minors and thus radicalize them by binding their psyche to the ideology of radical Islam. And that's all that with the ultimate goal of achieving centuries-long tendencies on the wings of juvenile terrorism, breaking the systems from the inside into the mind or by the language of today, to implement the globalization of Islam all over the world. Juvenile terrorism wants to create a model aimed at destabilizing international security forces to create an illusion of non-preservation, as it will play a map of the masses and vulnerabilities of civilians and children. Double standards and different tactical approaches, as well as the various interests of many centers of power, divert our attention from the true tactics of the enemy. The enemy hides, he does not go frontally, he sows his evil seed in a civilized world, according to which justice and freedom are so high. Juvenile terrorism, by minors coming into the world by birth, indoctrination and many long-lasting hybrid crises, peer violence, religious hatred of minorities and other issues, have the aim of creating a powerful energy that will unlock the doors of chaos all over the world. Also, juvenile terrorism is an offensive that leads to the fulfillment of the long-term goals of contemporary suicide terrorism and religiously funded terrorism. And our defense must have a long-term character and a profound effect on the eradication of every manifestation of radical Islam, as well as of all forms of racist and fascist ideologies that they want to create through the strengthening of ego, juvenile violence and violent juvenile extremism from the minor face of the new caliphate soldier and new racial version of national superiority. Any ideology that offers a program of diversity and superiority in relation to others that is right-wing, which promotes hatred and violence can be united with the bearers of juvenile terrorism which, by mass and intent, could have elements of a global juvenile revolution, or which could increase the frequency of terrorist attacks through juvenile terrorism, as a consequence, it could have elements of guerrilla warfare. Juvenile terrorism can lead to major conflicts and wars, as all conditions are met. Modern suicidal terrorism and religiously funded terrorism already have their

own global network and a network of humanitarian organizations. They have their bases, radicalization centers, training camps and a large number of radicalized youth all over the world (Homeland Security Institute, 2009).

Terrorists own old allies from a unipolar period, parallel power centers and a whole range of protected organizations and institutions that are also a tool of the new world order. The ultimate moment is for a reasonable part of the world to do everything in its power to prevent the further regeneration of modern terrorism through juvenile terrorism. Every young life that we do not save today from indoctrination, radicalization and recruitment will be more tolerant than any terrorist, and this future has already knocked on the door of the world and opened the door of chaos. A universal global soldier is being created without regrets and as it is already happening in many micro-locations in the world where this army is trained and prepared, but operating on the takijah - to conceal the true essence and purpose of the new army of terrorists. The goal of the new world order is to destroy the matrix of many nations through juvenile terrorism, especially those with strong archetypal and genetic code of defender who for centuries resisted their criminal campaigns. At the same time, they want to destroy the matrix of people with high moral principles in which evil is not relativized but universal, and who respects multiculturalism and multireligia, and above all clearly distinguish good from evil, and teach their children from the little ones (Massey, 2009).

Juvenile violence linked to radical Islam and violent extremism leads to juvenile terrorism. Radical ideology and the ultimate political goal derive from religiously funded terrorism, the modus operandi is juvenile terrorism arising from the classification of contemporary suicide terrorism. The role that an individual has in Islam gives another specificity of juvenile terrorism, the child learns from a child that he is a great being. His super ego develops, that there is only one God, and that all others are unbelievers. From there, it encourages juvenile hatred for everything that is different, and on this super ego only one platform is built - upgrade, indoctrination and radicalization. Juvenile terrorism represents a capillary global networking of contemporary suicide terrorism, using the mass of juvenile delinquency all over the world. To complement its capacity to work in networks, committees from humanitarian organizations to non-governmental organizations - logistical support (UNICEF, 2017).

Contemporary terrorism is increasingly entering the country and approaching civil society, while juvenile terrorism is the bearer of the future of religiously funded terrorism. Juvenile terrorism can also be viewed as a weapon of contemporary suicide terrorism and as a soldier of the new generation. Primary enemy is our youth and security forces and the goal is to shake the anti-terrorist coalition, and every new war, the crisis hotspot only becomes the target, victim and potential carrier of terrorist activity. The modern world does not have enough hearing on UN warnings about the humanitarian catastrophes and vulnerability of children in many marginalized areas, where the minor is seen as a rebel group's resource. Juvenile terrorism represents the globalization of radical Islam. Unipolar globalization has created terrorism in order to achieve its geopolitical goals. The emergence of global terrorism with its demonstration on September 11th was a milestone in the sense of increasing awareness of the world. The multipolar world appears with its increasingly contours and unipolar globalization and the globalization of radical Islam, which is its greatest consequence, resist the process of more just globalization and the creation of a multipolar world. All the conditions that have been created for the globalization of radical Islam, and which are still being created by large waves of migration, represent a great stumbling block that makes this process almost unstoppable.

Juvenile terrorism is the tool of this new world order that needs to materialize and implement the globalization of radical Islam, initially, in areas where geopolitical interests of great powers are interspersed, and, parallel to this, the eternal aspirations of Islam to return to the former "spaces". The globalization of radical Islam is aimed at political-religious expansion, and therefore all alliances will gradually change and disappear, as it strives for absolute power. The absolute rule of power will use absolutely all means. Juvenile terrorism that is gradually emerging is a tool for achieving a planned strategy of creating the mind. It is precisely through the process of globalization of radical Islam. The youngest religion, with the largest percentage of the young population who are less than 15 years of age with the greatest natural increase with prognostic regression that speaks of multiple

multiplication of the population in relation to all other religions - that means they have multi-member families. The goal of radical Islam is achieved by generations, with the exception of high growth, and the lower age limit for full maturity visibly proves that without these two factors there is not a large percentage of children who are the main resource and carrier of juvenile terrorism. In this respect, it can be said that a strategy of planned birth, as a model of progression of natural growth, is another requirement for creating a quantitatively large cause of minors who become radicalized by radicalization as a unbroken resource of religious terrorist organizations. Recognizing their environment that supports a large percentage of radical ideology and, often looking at each other, the model of the infection with constant radicalization and motivation by the network of terrorist organizations, they become both the target and the resource and the greatest victims of abuse from terrorist organizations (Massey, 2000).

All the above mentioned factors are only conditions for the operation of a terrorist organization in terms of the spread of radical ideology. The radicalization of the juvenile begins with indoctrination, and indoctrination represents religious education and the adoption of radical ideology, it is also the first step in the creation of terrorists - the coding of terrorists and the inevitable factor in creating juvenile terrorism. Without this "education" through which this minor person will adopt a radical ideology, there is no juvenile terrorism either. A child can be radicalized in kindergartens, schools, social networks, videos, mosques, parages, by peers, and even parents. The centers for the radicalization of minors in Europe are located in Vienna, London, Kosovo, Bosnia or France, while the most dominant radicalization takes place in the cyber space of the so-called "Dark net".

Terrorist organizations that deal with the indoctrination of children and youth are part of a global terrorist network. Education is a crucial and inevitable segment in the creation of juvenile terrorism. It is invested heavily in human resources and financially; it enables an increase in the percentage of radicalized youth through constant radicalization of minors. Looking from the angle of the strategic goal, education is a process, not only unavoidable, but essential. Indoctrination has been recognized for centuries thanks to the existence of many Islamic institutes, medresas, educated minors for future religious teachers, ideologists, who will transform and train the next generations. In the expansion service, they are all trained to create a network. (Mahzam, 2016)

Indoctrination takes place through the radicalization through which the juvenile person adopts the concept of a radical Salafist Islamist ideology. Within this process, the classification of minors is carried out, whether it will be for learning or for a new military cadre. Also, in the case of recruitment, a classification is made, whether it is a member of a terrorist organization for military personnel or for suicide missions. There are many organizations that approach it. They have their own local, regional and international action, the main priority of which is the indoctrination of minors and its inclusion in the network.

### **3. Economics aspects of terrorist acts performed by minors**

There are various tools for achieving the project of contemporary terrorism at work, and globalization processes have created problems with plan activity as they exist today. Globalization processes are causally related to the emergence of juvenile terrorism, and this can be concluded from the book Loreta Napoleoni Oil Economy - the Dark Side of the New World Order. It starts from the fact that the demolition of the Berlin Wall, the era of communism and civil wars, the openness of the borders has enabled the influence of many dark forces (Napoleoni, 2017). During this period, a powerful gangster economy began to form. In the 1990s in the Balkans, due to the civil war and the needs of the US military, a white slave market was set up in the Brčko District, near the Croatian-Bosnian border. Also along the Czech-German border blooms prostitution. They are especially targeted by girls of Slovenian origin, famous for their beauty and culture. Thus began to create a global prostitution market, targeted by adolescents. In Germany and the Netherlands, it has been legalized as a kind of modern slavery. Interestingly, Hamburg and Berlin are dominated by the Lebanese mafia, while the Kurdistan Labour Party controls the prostitution routes in Cologne. There is a n



interdependent relationship between armed groups and the slave industry and prostitution. The Slavic Slavs thus arrive in the Gaza Strip, accompanied by Egyptian and Palestinian criminal gangs, and brought them to Israel to the City of Rafah, located several hundred meters from the border with underground labyrinths that were once dug up by the Palestinian and Sinai Bedouins. Such underground tunnels and labyrinths exist in many parts of the world and the people created them primarily when he was in a confrontation with conquerors. These tunnels and underground labyrinths in the desert, as well as in the karst areas, pass terrorists, narco-clans, resellers and slave traders, women and children. The author states that with many experts on terrorism there is a fear of the binding of international criminal groups and slave trade. This is not surprising, for, among other things, it is a way of financing terrorist organizations, and in the light of today's research, it can be said that many of them are probably used to raise children of terrorists. It accentuates white slaves, which can mean that the phenomenon we today know as White Al-Qaeda in some other form or purpose began to be created earlier. In the Netherlands, where this industry is legal, many prostitutes work for NGOs, and knowing that terrorist organizations have this area, we can assume that some of these women are actively working on recruiting children. (Roy, 2008) The legalization that has led to the fact that in the countries that legalized it, there is very little information on the activities of that state in the fight to address cases involving trafficking in human beings and children. Many criminal gangs and corrupt politicians have secured this place on the globalization scene from its profits, as its protectors. As Marshall's plan allowed the popularity of American culture in a war-ravaged Europe, global prostitution and human trafficking not only brought profits, but also destroyed their moral values by destroying children's deviant systems of fertility (Benotman, Malik, 2016). There are more and more sexually transmitted diseases, at global level and more and more sterility, young people refuse to create a family, etc. This all proves that the project's target for the project is part of a much broader context, which is accelerating with the advent of juvenile extremism and terrorism. Many juveniles and students end up as prostitutes in the countries of the Middle East, the Gulf, Western Europe or Israel by deception for work and education. The cryogenic factor appears as a fake protector, authority, such jobs make a lot of money, so that money is invested in much bigger and more serious projects. This created a legal mafia activity that increased capital in various ways. It is these various social processes and changes, such as the process of transition from the Communist to the global capitalist economy, require a clear vision, plan and strong leadership (Caris, Reynolds, 2014).

The transition was accelerated and planned under the pressure of the West, which resulted in poor privatizations. As a result of bad transitions, economic crises were created, and mobs bought out stock for small money. Countries were in crisis to pay pensions and salaries, then bought their own polling station, sold state property, paid workers and pensioners out of unrealized capital. At that time, many oligarchs were buying state shareholding packages and in this way many mafia businessmen harassed the states. It was important for the then presidents to win the elections and rewarded mobsters who pulled them out of the crisis by allowing them to buy valuable companies for small money at tenders. At the same time, as a result of the economic crisis, education was neglected, various strikes, dissatisfied and uninteresting educational resulted in the mass of children being on the street more than in school. Systemic crises were created that were mostly affecting children. Other evidence that globalization is planned with an economic crisis, under the influence of various factors and terrorism, is that it was created before the state of war in which allies are first disabled, and new fronts and maturity are created.

Along with that, in the war in Afghanistan, terrorist collectivity through various alliances has begun, and terrorism has opened the way from the east to the Balkans and the West, something like this now wants to achieve IDIL through the creation of small Caliphates and the integration of all jihadist groups in Libya (Bodansky, 2016). Such an open way can be called a free zone, because modern laws have legalized many things, from modern slavery to the abuse of religious rights and freedoms. In the waves of migration, prophetic borders and marionette regimes, agents of terrorist organizations traveled under the cloak of missionaries of Islamism or as students and split religious communities, created paragamitas, trampled the alien country as their own intent, which is much more dangerous

today than before, which is the taking of children into terrorism before our door in the heart of Europe (Gorka, Herzog, 2016).

The goal of creating Caliphate in phases and introducing a golden dinar is not only to defeat the West, but also many Muslim countries. It would be a real tsunami and no country, unless there is no gold reserve, could not rush it out. A golden backing is necessary to quickly restore the country after a war. According to the information, from many informative content, the US prints its money without cover, which is a big risk because it will not be able to survive itself and will have to create new allies. What is important for us is that the goal of Islamic terrorism is the creation of Caliphate, and because of the re-creation of the Golden Dinar, many terrorist organizations are buying gold, for example, Al-Shabab (Napoleoni, 2017).

So we can conclude that the appearance of juvenile terrorism is causally connected with the globalization processes during which global terrorism evolved and evolved, and in addition, juvenile terrorism is a new model through which Islamists will soon achieve their goal of achieving Caliphate. It carries the acceleration, massiveness, not only the defense of the terrorist territory, but there is a real possibility for the young Kalifata soldiers to move, and accelerate the process of creating the mind. It is thought, if there is a plan to introduce a gold dinar, then terrorists plan large armed conflicts, civil wars, using all existing intolerance among many countries. The introduction of a golden dinar against juvenile terrorism would ruin the world as a tsunami, which is why the Islamic economy, based on solidarity and Chinese non-hegemonic, and in a strong development, can, along with other partners, supersede financial committees of terrorist organizations. Juvenile terrorism has reflected on the intentions of global terrorism, and for them this phenomenon is a journey to the future, not just a dream, but a path to achieving goals (Ganor, 2009). A security weapon from the perspective of the migrant crisis as a form of disturbed security can create the appearance of juvenile terrorism in these regions on a shorter and especially longer run. Unidirectional and one-dimensionally driven globalization processes created zones of disturbed security in the eternal struggle for their geopolitical and geostrategic positioning and expansion through a large number of military interventions and the creation of warfare. Also, due to hybrid wars and climate change, the economic collapse in unsafe areas is enveloping large migrations that many today compare to the peoples' peoples. Today's migrations are the result of globalization processes that are opposed by terrorist organizations. First of all, they are the consequence of the Arab spring and as such have their own specificities. Global migrations are today caused by unbearable and difficult living conditions, extended duration of hybrid wars, internal conflicts and explosive high natural growth and poor economic and social conditions.

Migrant Crises create zones of disturbed security in the long run and contribute to drastic changes in a country. Especially if the groups that have been identified as radicalized and deported from Europe are unsuitable, they begin to legitimately settle on the territory of the Balkans. The increase in such groups that are prone to salafism and the Hanballite school would lead to the rapid development of radicalized populations and the emergence of juvenile terrorism and new Islamic jihadist groups as resistance to cultural differences. All the children of the world are the same to us, and everybody's life is crucial, but the radicalized minors of their peers see themselves as their enemies and infidels, it must not be lost out of sight, that is, ignored. Young migrants are frustrated by the crisis, they are nervous and want to solve their problems as soon as possible, they are easily reared by terrorist organizations. The whole world is afraid of terrorism, the xenophobia that exists would increase with an even greater influx of migrants that Turkey would let go, while Germany could direct them to position themselves in the territory of the Balkans.

It comes to the conclusion that all these migrations are planned instrumentally and largely caused by terrorist organizations and their allies, since it is noticed that some great powers want - each in their own way to manage the migrant crisis. Europe's failure to address migrants is tearing down the pillars on which it is based, and the advent of juvenile terrorism in the world and the large number of young people in the migrant crisis leave room for crisis resolution in favor of terrorist organizations. If they, in cooperation with some powerful ally, manage to position and legalize the permanent stay of a large number of migrants in this region. At many locations in Europe, a terrorist network is waiting for fresh personnel. In Islam, there is a phenomenon of jihad, which is defined as sacred war, but there is

also a phenomenon of Hijrah, and radical Islamists and salafis migrations perceive it as a hippie. If violence is permitted and every criminal act is a war booty, the phenomenon of a takahex with which faith allows for concealment, hypocrisy and lying comes in the same situation that the data we have about migrants is not correct.

However, what worries us most is the high concentration of children, young people and it is believed that there are fake families, these are in fact cells that travel under the cloak of migrants. Many countries refuse to receive them, there is no single view that this crisis is generally solved, which raises doubts that this crisis is actually managed by someone from the West, because many countries that have caused this do not want to accept responsibility. There is an impression that migrants deliberately claim to stay in this part of the Balkans, they can be a mask for infiltration and transfer of terrorists, while they can use children as a green card for some countries of Western Europe. For the creation of juvenile terrorism, the existence of a majority Islamic population that is radicalized is crucial, and it can be said that today's migrations bring a long-term security breach, even taking power in some future period, when they become the majority, because they are demanding an increase in the population in a certain territory of these states new concessions to their communities.

#### 4. Conclusion

Through juvenile terrorism, a terrorist organization uses a minor to commit a terrorist attack, but also creates a mobile army of killers regenerating its military cadres and thus surviving. Minority terrorism is a tool and the true essence of religiously funded terrorism and contemporary suicide terrorism. Juvenile terrorism creates favorable conditions for mass appeal, widespread support and the development of contemporary suicidal terrorism that is of a global character. Using the fastest spread of Islam, its dynamic spreading dimension throughout the planet, the ability to constantly indoctrinate minors and thus radicalize them by binding their psyche to the ideology of radical Islam. The modern world has created terrorism in order to achieve its geopolitical interest through it and bring the world into a new type of slavery and racism. In a world that is often called a new world order, where radical Islam through juvenile terrorism represents the cheapest way of warfare and the key to introducing new radical ideologies in which there is no place for multiculturalism and multireligiousness. In order to realize their utopian plan, they need a minor. Persistent, not only for more than a decade but more centuries of effort, is the disruption of all values, the destruction of morality, the codex, the honor of everything that is noble. Duplication of the human psyche and soul with special emphasis on juveniles takes place. That is why we must define a comprehensive definition of juvenile terrorism: it is a set of all actions and actions that involve indoctrination of radicalization and military training of children leading to the development of juvenile terrorism as an illegitimate form of political violence, which, in its foolish terrorist act, through suicide attacks and the creation of new cadres - Terrorist forces misuse a minor to fulfill his ultimate political goals. Contemporary terrorism is increasingly entering the within state structures and civil society, while juvenile terrorism is the bearer of the future of religiously funded terrorism. Juvenile terrorism can also be viewed as a weapon of contemporary suicide terrorism and as a soldier of the new generation. His primary enemy is our youth and security forces. The goal is to shake the anti-terrorist coalition, and every new war, the crisis hotspot only becomes the target, victim and potential carrier of terrorist activity. Various models of modern warfare were instrumentalized through globalization processes. The result is that because of them, terrorism is spreading, evolving, evolving and evidencing the juvenile terrorism that will itself evolve. Radical Islamists use the global prevalence of the Islamic population, radicalizing today's children all over the world to create a world front where they will, as a sacrificial altar, put all children of the world in the same place.

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## SAFETY ISSUE FIGHTING ORGANIZED CRIME TODAY

**Abstract:** For organized crime today, there are neither international, nor inter-ethnic, or religious borders. Police and security forces, have to be guided by such cognition both on the internal and international scene in order to overcome uprising crime growth. The basic requirement for the functioning and development of police organizations in the contemporary environment, of course, is the construction and existence of an adequate model that will have a satisfactory level of flexibility. Organized crime does not remain within borders of one state, and the response and suppression of this threat is a primary task, with requirement of finding more complex solutions and involving all actors.

**Keywords:** organized crime, security and police, new approach, new solutions, international organizations, technical solutions, education

### 1. Introduction

The beginning of the 21st century is characterized by new forms of international politics by creating new national states, regional and global ideas, principles based on movements economic, security, political, cultural, ecological and other combinations. Today, new challenges and management threats emerged global and regional security. While in the past most threats came from other countries, today non-state actors are increasingly an important segment creating a new security discourse. In this regard, international organized crime, in modern international relations, represents one of the primary securities threatening the national, regional and global environment, disturbing basic social, economic, political and human standards. Globalized and the open-minded ambitions of the criminals are becoming more and more networking and becoming “actors without control”, and will be used by the shortcomings of national and multinational security systems. This means that all countries are exposed to this threat, and especially emphasizing post-conflict and post-war states that are in the political process and social transformations are often struggling with traditional safety problems. In complex economic, security, political and other circumstances, a precondition for successful implementation of special role of the police is the organization's compliance with the needs, capabilities and standards of the security issues. The basic condition for the functioning and development of police organizations in the contemporary environment is the construction and existence of an adequate model that will have a satisfactory level of flexibility. The reason for this situation lays in the fact that the modern environment is turbulent and that it is the basic characteristic of discontinuity. The goal of the research is to try to propose suitable safety solutions and models that police can adapt to new situation on the field. Only with more flexible organization system world police can be capable to resist to organized crime on the global level. The methodology used in this paper is theoretical analysis and it is the basic scientific method with the synthesis as a method necessary in the formulation of the conclusions that have been reached. After selecting data sources and studying literature, solving a number of key issues will be solved as well as formulating the topic itself. By analyzing these sources, literature we will attempt to answer the questions posed in the subject of the paper.

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## 2. Contemporary organized crime

Today, in contemporary theoretical discussions (Giraldo and Trinkunas, 2010; Roth, 2010; UNODC, 2010) the basic activities of organized crime are: drug trafficking, arms trade, human trafficking, human smuggling, games of chance, crediting, blackmail, forgery, money laundering, corruption, prostitution. The modern environment has been favorable to the development of new activities of international organized crime such as cybercrime, environmental crime, nuclear waste and material trafficking, trafficking in children, trafficking in human organs, smuggling of luxury cars, intellectual property theft, maritime piracy, pedophile prostitution, etc. (OCTA-Europol, 2011). Organized crime today also exchanged explosives and guns for vulnerabilities and exploits. They have changed black masks for the anonymity of the internet and they are able to resell precious data in the dark and deep web (Bradley, 2015). No matter their means of thievery, criminals have the same desired outcome in mind. Organized crime in contemporary international relations is one of the primary security threats to the national, regional and global environment, disrupting fundamental social, economic, political and human values. In this context, in the mid-nineties of the last century, many scientific and media research, pointed out and evaluated the threat which represents international organized crime. According to the conclusions of the 1994 conference organized by the Washington Center for Strategic and International Studies, international crime was labeled “a new empire of evil,” while the UN 1996 report claimed that international crime had become “a new form of geopolitics” (Giraldo and Trinkunas, 2010, p. 393).

Table 1. Contemporary Activities of International Organized Crime

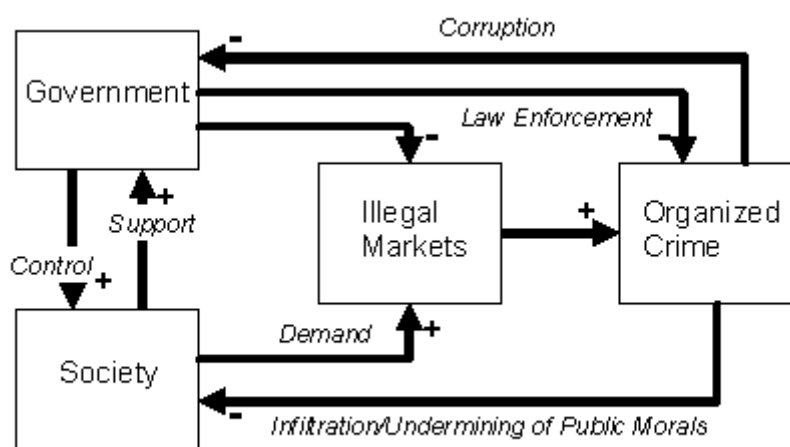
Contemporary Activities of International Organized Crime		
Drug trafficking	Arms trade	Human trafficking
People smuggling	Corruption	Foul play
Money laundering	Prostitution	Smuggling of migrants
Cyber-crime	Intellectual property theft	Maritime piracy
Trafficking in human organs	Theft and smuggling of cultural goods	Theft and smuggling of motor vehicles
Ecological crimes	Smuggling weapons	Insurance fraud
Children trafficking	Illegal trade with high-tariff goods	Various types of hazard games

Source: (Roth, 2010, p. 15)

However, in the first post-Cold War years, certain discourses have appeared and skeptics of whether organized crime really represents a real threat to national and international security. Certain skeptics argued that the threat of international organized crime was overwhelming, as military threats at the national and international levels generally fell. Military threats were still considered to be primary and rejected the idea of international organized crime as wrongly based on logic and interpretation, and even that crime was only a local rather than an international scale (Naylor, 2009, p. 235). Similar interpretations can be found in other authors who believe that the concerns of international organized crime were created by military, intelligence and other national security establishments that needed “new justifications for their relevance (and budgets) in the post-Cold War period” (Beare, 2003, in Giraldo and Trinkunas, 2010, p. 400). Similar thoughts remained only on a theoretical level, as international organized crime evolved more and more time and assumed global proportions. Jeanne Giraldo and Harold Trinkunas (2010, pp. 400-401), explained two trends: the process of globalization (increased international flow of people, goods and money) has contributed to the growth of legal and illegal economy, and transformations from closed-authoritarian to democratic regimes, economic transition and market freedom, undermining governments and state authorities in individual states. Most studies are unique in the assessment that the main motivational power of organized crime is to

make financial gains, that is, the quick acquisition of huge profits, as well as the inability to discover in the conduct of these criminal activities penetrating into the legal political, social and economic flows of the state and society. Due to the lack of consensus on theoretical and practical levels, the conditions for a unified definition of international organized crime cannot be created. Reasons can be multiple, given that in organizational and structural terms criminal activities are international, but the everyday occurrence of new forms, conditions and intensities of criminal groups at global, national and local level makes it difficult to create a unique definition. American author David C. Jordan (1999), in his book *Politics and Drugs: Dirty Money and Democratic States*, considers that the production and trafficking of drugs, apart from international mafia groups, organizations or cartels, have become legal and political structures of a large number of countries, so that the money acquired from the production and distribution of drugs is “washed” and legalized by becoming an item in the state budget. Jordan calls such a country “drugstores” by developing five stages for constituting such a state: the first stage implies that narcotics induce lower-ranking officials; second, it implies growing cultural support for drug use, and at the same time removing the influence of opponents, and further infiltration into the state apparatus, the third stage is massive corruption of state officials, especially the police and judiciary, including murders; the fourth is the so-called critical which involves the corruption of top rank officials, for example, the highest police officers. In this regard, political killings and financing of certain media are organized in order to support these activities. The fifth stage is the so-called advanced level of narcotics (Colombia) and it implies the cooperation of ministers with organized crime. So, organized crime takes the leading role in the political authority of that state. Similar examples show that international organized crime is capable of infiltrating the socio-political elites and undermining the basic functions of the state. Among other things, it can be noted that international organized crime undermines the democratic stability of the state, especially through certain corrupt activities at all levels. The most common opportunities for corruption are characteristic of countries that are in the transition phase of democratization, because organized crime groups often use political, economic and social instability in those countries, in order to carry out their activities with ease.

Figure1. Cressey model of organized crime



Source: (Lampe, 2003)

By analyzing this organized crime model made by von Lampe, four basic functional-causal elements are noticeable: government, society, organized crime and the illegal market. Organized crime through corruption acts on state authorities. The state controls society, and society at the same time supports state structures. Insufficient state control through legal mechanisms to the illegal market and organized crime allows the illegal gain from the illegal market, while at the same time organized crime infiltrates a range of types of threats into society and influences its way of support to the state structures. The United Nations identified more than 18 international categories, namely the basic activities of organized crime, ranging from money laundering, drug trafficking, corruption, human and weapons trafficking, cybercrime, intellectual property theft, piracy, false bankruptcy, insurance fraud, theft of cultural goods to ecological crime (Roth, 2010, p. 15). International organized crimes, or criminal

organizations, are capable of creating a high level of disruption to the legal, economic and security activity of the state, calling into question the effectiveness of police and internal state order, which significantly puts into question the security of citizens and the national security of the state. Profit represents the basic motivational power of organized crime and each of its activities is aimed at increasing profits. Organized crime revenues are very difficult to estimate, as criminals often spend a significant amount of time trying to hide what they make. Organized crime is a loosely defined concept. Some groups, like Japan's Yakuza, are highly organized and hierarchical, allowing economists and crime fighters in Japan to attribute much higher revenue totals to Yakuza groups than others around the world. Here are the top five high organized criminal groups, ranked by revenue estimates (Fortune, 2014):

1. Russian mafia group, "Solntsevskaya Bratva", revenue 8,5 billions US \$,
2. Japanese group "Yamaguchi Gumi", revenue 6,6 billions US \$,
3. Camorra, Italian group based in Naples, revenue 4,9 billions US \$,
4. Ndrangheta, Italian, Calabria group, revenue 4,5 revenue US \$,
5. Sianola, Mexico's largest drug cartel, 3 billion US \$.

### 3. Police and security forces challenges fighting organized crime today

Police departments are much more complex than before. The police are no longer responsible solely for traditional criminal investigations, but have expanded their mission, taking into account the objectives of preventing and reducing the rate of organized crime, and crime in general. Instead of just focusing on crimes after they were committed, today's police departments are looking for ways to be proactive and proficient in every respect. The breadth, diversity and complexity of police tasks, the large volume of jobs and the number of people needed to perform these tasks, along with specific features of the execution of police tasks, appear as major moments which affect the complexity of the organizational structure of the police organization. Specialization in police is a must. A high level of specialization in the police have numerous advantages, such as: determining responsibility for the performance of individual tasks, improvement of the level of training, creation of experts, higher level of quality in carrying out police tasks, etc. However, specialization has its own shortcomings, such as: limited usability of personnel, narrowing of interest in the whole of the work process and the goals of the organization, etc. Despite its organizational hierarchy and centralization, the police have features of functional decentralization that most often does not suffer "waiting for orders", but it determines the rights and duties of each police member to independently and in accordance with its powers, takes the appropriate measures within his or her jurisdiction. Every police member, in law envisaged situations, without waiting for the order to decide can carry out legitimization or arrest, or using force, or controlling drivers and vehicles, and so on. In this regard, it should not be considered that between the liner components of organization and functional decentralization (decentralization of police powers) in the police there is a contradiction. On the contrary, they are complementary and characterize the essence and character of the police profession. Today police departments should be organized as big international companies that operate in much different countries. In global sense team work of police departments from all world must to be globalized also. Team work enables higher productivity, quality and profitability in every organization, police also. The matrix model as an organic representative design structures, enables collaboration within operational bodies, work units or teams as better use of resources, especially human resources in police. Integral team management belongs to managers as the owners of the action, on solving the specific task. In matrix model based organization employees have two types of responsibilities: according to the head of the functional unit and to the manager, i.e., team to solve the task. Namely, member the team has two bosses, at the same time they are accountable to the team leader and the functional manager. The team manager responds to the organization leader. Coordination as a function of police management is also very important (UNAFEI, 2017). Coordination aims establishing a harmonious relationship between elements of the police system and their activities during the execution of tasks until a common goal is achieved. Coordination creates a harmonious relationship in the functioning of the police, which achieves harmonization the functioning of its organizational parts during the execution of the task in accordance to; place, time and engagement people and material and technical means.

#### 4. Conclusion

Globalizations en large ambitions of the organized crime that become more connected through the entire world. It is used by the shortcomings of national and multinational security systems. All countries in the world are exposed to this threat, and especially emphasizing post-conflict and post-war states that are often struggling with traditional safety problems. The modern environment has been favorable to the development of new activities of international organized crime such as cybercrime, environmental crime, nuclear waste and material trafficking, trafficking in children, trafficking in human organs, smuggling of luxury cars, intellectual property theft, maritime piracy, pedophile prostitution, etc. Global trends have created new dimensions of reflection all kind of crime, which are not nationally and geographically determined. The opening of state borders, the faster flow of information, material goods, economic capital, and global tourism and culture with the emphasis on improving civilization dialogue, support the expansion of organized crime. International organized crime through its global transformation and internationalization was no longer only a relevant factor of instability and threat to transition countries, but also to consolidated democracies. Insufficient state control through legal mechanisms to the illegal market and organized crime allows the illegal gain from the illegal market, while at the same time organized crime infiltrates a range of types of threats into society and influences its way of support to the state structures. Today police are no longer responsible only for traditional criminal investigations, but have expanded their mission, taking into account the objectives of preventing and reducing the rate of organized crime, and crime in general. Independently of the combination, i.e. introduction of elements of territorial, matrix and others models of flexible police organizations are necessity. The best results should be expected by combining multiple organizational models structure and that the police remain faithful to their traditional model of organizational structure - principle of unity of leadership. There are some safety issues that are characteristic in police departments around the world: lack of training and cooperation (even in the same department), corruption, lack of personnel, loss of confidence. Solution can be appropriate recruitment and selection, education and training of police officers are important aspects to be considered in respect of policing. Transparency of police is also important in order to win over the confidence of the people. Budgeting is always important. By our opinion the new model of police organization is crucial for fighting organized crime. Therefore, it can be concluded that one of the key preconditions for efficiency in the work of the police against organized crime is the existence of an adequate organizational design, in accordance with the needs and specifics of the society, economy and budget, as well as their requirements of partnership and cooperation with other police in the world. Thus, organizational design has a significant role to play in ensuring a legitimate, efficient and flexible police organization which can be adapted to the environment. For that reason, the organizational structure is one of the main factors of the effectiveness of contemporary police.

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**Beba Bajalski, MM<sup>1</sup>**

## **THE NEW ERA OF TOURISM DANGERS DUE TO TERRORISM THREATS**

**Abstract:** In this article the impact that terrorism has had on tourism in last fifteen years will be considered, because in that period the new era of tourism dangers due to terrorism threats can be observed. Attention will be devoted to several terrorism attacks which occurred in mentioned period, which concretely endangered tourists with fatal consequences and lethal outcomes. This is an effort to mark different factors that motivate terrorists to take a terrorist attack, as well as attempt to understand what kind of measures could increase the safety of tourists. In order to achieve this goal it is necessary to consider a few contemporary theories about terrorism impacts that threaten tourism industry as well as all possible safety measures for tourists. The term "intercultural dialogue" will be taken in to consideration in the context of fight against terrorism in the hospitality industry in order to provide higher safety level. Based on analysis of acknowledged facts of terrorism attacks from the recent past, the conclusion that had been drawn is that negative terrorism impact on tourism for the analyzed time have been on the micro level, because the participants in the tourism industry, including tourists are adapting to new conditions and threats.

**Key words:** Tourism industry, terrorism, intercultural dialogue, safety measures

### **1. Introduction**

The globalized borderless world gives plenty of opportunities for terrorists that can be used against tourists. Considering the significant increase in security risks and threats to the international economy, we will analyze the impact of terrorism on the tourism industry. Tourism is a promising branch of the economy, and in many countries significant financial resources from the sphere of tourism are being introduced into national economies. It is important to analyze the motivations for terrorist to conduct attacks in this sphere. At the same time, terrorist attacks on tourist destinations send a picture to the world that the state is vulnerable. Consequently, after a terrorist attack the focus is on the state ability to recover and to manage with the consequences of the attack. For the analysis, we used articles and mass media news that featured terrorist attacks such as:

**Luxor 17 November 1997** - 62 tourists were killed at the Egyptian archaeological site by members of Al-Gama'a al-Islamiyya;

**Bali 12 October 2002** - 202 people were killed and 209 injured in bombing on nightclubs; members of Jemaah Islamiyah were executed for the crime;

**Sharm el-Sheikh 23 July 2005** - 88 people were killed in an attack on the Egyptian resort by a group affiliated with al-Qaeda;

**Tunis 26. Jun 2015** - a gunman killed 38 people on a hotel beach in Sousse, ISIL claimed responsibility for the attack;

**Paris 13 November 2015** - a gunmen and suicide bombers of Islamic State (IS) simultaneously hit a concert hall, a stadium, restaurants and bars, 130 people were killed and hundreds wounded;

**Grand-Bassam, Ivory Coast, 13 March 2016** - three gunmen opened fire at a beach resort killing at least 19 people and injuring 33 others. The North African affiliate of Al Qaeda, Al Qaeda in the Islamic Maghreb, claimed responsibility.

**Nice 14 July 2016** - 19 ton cargo truck was deliberately driven into crowds of people, leaving 86 people death and 458 injured, ISIS claimed responsibility;

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**Istanbul 1 January 2017** - 39 people have been killed by a gunman in Reina nightclub. The blame is attributed on Islamic State;

**London 3 June 2017** - a van struck a number of pedestrians on London Bridge. After the van crashed its three occupants began stabbing people around restaurants, 8 people were killed and 48 injured.

Terrorists target tourists in order to achieve ideological objectives, punish nationals for supporting the government, and strengthen claims to political legitimacy by making the government look weak (Hall and O'Sullivan, 1996). Attacks on tourist destinations almost always provide great media attention, allowing terrorists to send a desired message.

## 2. Tourism as an economic branch threatened by terrorism

Tourism is promising industrial branch. International travel and tourism is a significant contributor to economic growth and development, with worldwide growth in international tourist arrivals outpacing national income growth one out of every two years over the past 30 years (Baker, 2014: 58). So, the impact of terrorism on the tourism industry can be enormous, because it can lead to unemployment, homelessness, deflation, and many other social and economic ills.

In researching connection of terrorism and tourism in the sphere of economy, one of the key question is how security measures can be improved in order to prevent terrorist attacks and to reduce the economic damage of their consequences. Tourism industry in the future must count on such dangers and increase security in all facilities with a large tourist frequency, such as airports, hotels, beaches, restaurants, museums, historical monuments. On terrorist attack in Egypt in 1997 in Luxor - world's greatest open-air museum, we can follow Wahab (1996) logic that Egypt's terrorist attacks represent their aspiration to revive traditional Islamic societal rules opposing the corruption that modernity brings, which is seen as a divergence from traditional Islam. Wahab (1996) and Tarlow (2005) agree that tourism is targeted by terrorists because it is seen as outsiders representing a mode of neo-colonialism or a threat to their social norms, traditions and religious convictions. Security measures should be expanded also on concerts and great sports events in stadiums, usually full of tourists.

After terrorist attacks, the number of tourists in these places is decreasing, which affects the economy. Data from INSEE shows that the frequency of tourists in France declined after a terrorist act in November 2015 in Paris. Statistics show that the hotel's occupancy fell by 5.4% and villas by 20.4%. According to research of WTTC it takes approximately 13 months for a place to recover from a terrorist attack.

Due to the negative effects of terrorism attack on the economies of the targeted countries, there is a need for analyzing the motives of terrorists as well as for undertaking security measures. Dr. Peter Tarlow, the President of Tourism and More portal, the world's leader in tourism security and economic development through tourism, points out that tourism is very attractive to terrorists, which makes it a suitable target for creating economic chaos. In large metropolises and seaside resorts tourism is a major source of income thus terrorist attacks can cause great damage there. The motivation of terrorists is that by provoking fear, they publicly demonstrate their possibilities and express their demands. Mass media are much more likely to write about terrorist attacks, as it is the topic that better sells newspapers (Tarlow, 2014). It is useful that tourist centers have a plan of providing correct information to mass media and that mass media should not publish false information due to sensationalism. Incorrect data leads to the spread of panic in the general public, including the competent services. Sensational reports in the mass media are useful for the terrorists because they cause fear and panic among people.

The context of fear is evident in Simeunović (2009) definition of terrorism: Contemporary terrorism can most often be defined as a complex form of an organized group and rarely of individual or institutional political violence, marked not only by intimidating violent, physical and psychological but also so sophisticated-technological methods of political struggle, which usually during the period of political crises systematically try to achieve big goals in a morbidly spectacular way [...] (p. 80). After media coverage of a terrorist act in one place, fear among tourists around the world is increasing.

Accordingly, world terrorism achieves the goal of a negative impact on that whole industry. Individual operational objectives can simultaneously be in the function of achieving several tactical goals. Thus, for example, diversion on an economic facility can at the same time have the significance of an

operational objective in the function of weakening the system on the economy level (Simeunović, 2009:142).

Over the last years terrorism has not been limited to major tourist centers but has also threatened smaller tourist destinations, such as the attack on Sousse. British visitors to Tunisia dropped from 423,000 in 2010 to 360,000 in 2011, the year of the Arab Spring, in which pro-democracy activists toppled several countries' governments. In 2014 the figure reached 440,000. The amount spent by UK tourists fell from £178m to £143m from 2010 to 2014. Conclusion is that security measures must also apply to places that have not previously been attractive to terrorists such as beaches, waterfronts, and night clubs (Heyden, Justin Parkinson & Tom. "How Terrorist Attacks Affect Tourism." BBC News, BBC, 29 June 2015).

### 3. Main terrorism motivations in tourism

Ala Al-Hamarnah explores terrorists' motives. He claims two main motivations for terrorist attacks: the achievement of political goals and threat of imposing another's culture and destroying the individuality of the nation. It is difficult to answer the question: Why attacks on tourists? They are the very people who to a greater or lesser degree show interest in the "other's" culture and at the same time are pumping money into the local economy. Simeunović (2009) determines terrorism as a communication strategy. Consequently, it can be concluded that tourism-oriented terrorism has three most important motivations:

- political motivation
- economic motivation,
- cultural motivation.

These motivations lead to destabilization of an economy.

*Political* motivation of terrorists serves for the political destabilization of the state. An example is the terrorist acts in Egypt and Tunisia, aimed at showing a poor security system and endangering the most important sector of these countries' economy - tourism. Weak states often means ineffective law enforcement and such circumstances make it easier for terrorists to operate (Schmid, 2005). Terrorist events that jeopardized Paris and London have affected the economies of these strong countries. After the November 2015 terrorist attack in Paris, the number of tourists dropped by 30%. After the June 2017 terrorist attack in London, their tourism industry is evaluating the impact on a sector that supports 700,000 jobs and is worth some £36 billion per year (O'Ceallaigh, John. "London's Tourism Industry Counts Cost of Latest Terrorist Attack." The Telegraph, Telegraph Media Group, 3 Oct. 2017.).

Another type of political motivation for terrorists is drawing attention on minority groups. Radical Kurdish group in Turkey by terrorist attacks on tourists have drawn attention to the Kurdish minority. A drastic example is bomb blasts attack of an offshoot group of Kurdish militant organization the PKK—the Kurdistan Freedom Falcon in Istanbul in 2016, December 10 at stadium of Besiktas football club 38 people were killed.

*Politically* motivated terrorism can be directed against the policy of the country from which tourists come. For example, the main target of the Bali bombing were the Americans and their allies who were guilty of attacking the Muslim ummah in Afghanistan in 2001. Imam Samudra argues that they deserved to be attacked (Muhammad Haniff Hassan, 2006:16). Three bombs have exploded: device carried by a suicide bomber; a car bomb, which were detonated near nightclubs in Kuta; a third device detonated outside the US consulate in Denpasar. Recorded voice message from Osama bin Laden stated that the Bali bombings were in retaliation for support of the USA's War on Terror and Australia's role in the liberation of East Timor from Indonesia.

The motivation of terrorism directed at *endangering businesses* is targeted to extortion of finances for terrorist groups. An example is a murder case of German hostage Jürgen Gustav Kanter in the Philippines in Feb 2017, for whose liberation the jihadist group The Abu Sayyaf demanded the ransom 778,000 \$. This type of extortion of funding for the financing of terrorism was noticeable in the Middle East after the liquidation of Saddam Hussein in 2006 and the beginning of the civil war in Iraq, when the ISIS position was strengthened. ISIS also has affected the price of oil, as it robbed Iraqi oil and

controlled large oil flows in the Middle East. By destroying and looting historical and cultural sites in Iraq, Libya and Syria, they have traded museum artifacts. Vladimir Putin in the Oliver Stoun' movie 'The Putin Interviews' (2015-2017), points out the main practical task of ISIS - the creation of a caliphate of the Islamic State from southern Europe to Central Asia. Documentary frames show oil trucks that were shipped by ISIS from Syria to the Turkish ports. To prevent the overthrow of Bashar al-Assad and the spread of terrorism, the Russians military assisted Assad to stay in power. On Dec 11, 2017 Russian troops start withdrawing from Syria after destroying "international terrorists" in just two years. As a form of individual, illegitimate, illegal and institutional violence, terrorism is always turned against certain institutions of a society, or in concrete terms; against a state (Simeunović, 2009:142). From this it can be concluded that terrorist attacks in the economic sense can deprive the investment attractiveness of a country and thus jeopardize the economy of that country.

*Culturally* motivated terrorism is a danger both for the cultural identity of a state and for its tourism industry. An example is the destruction of Palmira in Syria in May 2015 by ISIS. The motivation was erasure of cultural heritage and history. Unesco's director general, Irina Bokova commented on this: "This new blow against cultural heritage shows that cultural cleansing led by violent extremists is seeking to destroy both human lives and historical monuments in order to deprive the Syrian people of its past and its future". Another morbid cultural incident occurred in December 2011. A 200-year-old Cairo Institute d'Egypte, one of Cairo's most precious scholarly archives with about 200,000 historical manuscripts and maps was burned during the demonstrations. The director of the institute, Mohammed al-Sharbouni said: "The burning of such a rich building means a large part of Egyptian history has ended." In February 2015 Nineveh Museum in Mosul was robbed in Iraq by ISIS. ISIS terrorists have destroyed Assyrian sculptures at the museum using hammers and uploaded video of the barbaric destruction. This is another big act in campaign of destruction cultural heritage of Middle East.

#### 4. Strengthening security measures in tourism

In the new era of multiplying terrorist attacks the need for attention to the development of serious security measures is required in the sphere of tourism, which involves preparation of the strategy of possible scenarios. New danger of cyber-attacks on tourist sites can happen. The goal of cyber-attacks by mass media announcing the future terrorist attacks is to force people on massive cancellation of their travels, thereby damage to the economy is caused.

It is also important to observe the intercultural aspect in the context of the impact of terrorism on the tourism industry. The intercultural dialogue mentioned by Ala Al-Hamarneh has not yet been developed. Most European group tours visiting Egypt, Morocco, Tunisia and Emirate of Dubai are organized with accommodation in separate hotels, so contacts with locals are minimized. Through such segregation the tourism industry alienates people instead of stimulating intercultural dialogue. Tourists do not rely on personal encounters with locals, but on the Internet. This way, European tourists visiting Islamic countries are separated from the customs of these countries. *Intercultural dialogue would be a good instrument for the prevention of cruel acts in the tourism industry.* Through migration processes from the Middle East to Europe, terrorists mingled with migrants. An atmosphere of distrust towards migrants appeared, but also unwillingness of migrants to live under the European rules of life was not helpful. Great gap is created in intercultural dialogue between people of different cultures and religions. Need for intercultural dialogue in tourism grows because when traveling to foreign countries tourists need to get to know local customs and vice versa.

Another security measure could be the organization of safety trainings in case of terrorist attacks in institutions where tourism staff is trained. Given that ISIS' highest activity has been since the proclamation of the Islamic state's caliphate on 29 June 2014 until the end of 2017, it is obvious that tourists must have better information on terrorism. Tourists often visit culturally and religiously different places from their own and they should be cautious about other cultures in order to be able to recognize religious radical extremists, although this should not imply xenophobia. Investing money in private security specialized in tourists' safety from terrorism which could be spread also on cheaper resorts, may contribute to overall security in the tourism industry.

## 5. Conclusion

The income from the tourism sector for the global economy is huge. The World Tourist Organization says that in 2030 there will be two billion tourists – a huge figure that supports the development of overall economy. We can conclude that terrorism can inflict economic damage on the micro level as tourists flee from those countries where terrorist attacks occurred. At the same time, on the macro level, the tourism industry is in huge development. Tourists think more about their safety and after a series of terrorist acts in large tourist centers they start to choose their routes more carefully. Terrorism of 21st century is a global ideology therefore closer contacts, better mutual understanding and more developed intercultural dialogue can certainly be good direction in the broader plan of prevention of terrorism in tourism, and consequently for further strengthening of tourism as an important economic branch in the new dangerous era of spreading terrorism.

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## THE TOTAL QUALITY MANAGEMENT IN THE ROMANIAN HEALTH SYSTEM

**Abstract in English:** By definition the total quality management (TQM) concept requires the joint effort of all organizational members to concentrate and integrate discipline in organizational culture and activity thus, granting long-term success. The medical managerial activity must consider the various dynamic medical events, the requirements for highly qualified personnel and the adequate attitude towards patients and their needs. Even though Romania is one of the countries which produces well-trained medical personnel, the healthcare system still requires improvement in assuring efficiency and patients' satisfaction. Hence, the application of TQM method in healthcare services can increase the efficiency of Romanian hospitals. With this purpose the paper desires to analyze and establish the quality evolution of medical services, personnel and comfort in Romanian hospitals in the past two years by using collected data from the Romanian Ministry of Health and reflect the situation of health efficiency in terms of patients' satisfaction.

**Keywords:** Quality Management, hospital quality, patient's satisfaction, Romanian healthcare.

### 1. Introduction

The subject of Romanian healthcare system is registering a negative feedback from its citizens as it does not provide, as required, proper medical care, hygienical conditions, and in addition the medical personnel does not treat all patients with the required courtesy. In addition, the medical management system is not correctly integrated as problems occur in the appointments scheduling and patients, even in critical stages, are left waiting by the doors to receive any type of medical care. The problems, however extend beyond the patients' satisfaction. The medical personnel, even though well-trained and qualified by the Romanian educational system is obliged to treat patients with scarce resources in terms of access to drugs good equipment and even treatment facilities. Hence, it is no surprise that even medical personnel feel unsatisfied both in terms of working conditions as well as in terms of medical care that one could provide to a patient. Even if the prices of the Romanian medical system are more accessible to the audience than the ones in other European countries such as Germany, Austria and France, the above deficiencies can be enough to convince a number of Romanians to make a financial effort and appeal to a foreign medical system.

The Total Quality Management (TQM) method, has been increasingly applied in hospitals around the globe as it was found efficient in cost reduction but also in providing qualitative patient care. Thus, to improve the Romanian medical system so it can assure quality services to its customers, at affordable prices, to improve time allocation and prevent errors by providing employee training in such matter, the application of a proper medical management is a top priority (Lee, 2012). The TQM method requires the joint effort of all organizational members to concentrate and integrate discipline in organizational culture and activity thus, granting long-term success.

By analyzing and establishing the quality evolution of medical services, personnel and comfort in Romanian hospitals in the past two years and by reflecting the situation of health efficiency in terms of patients' satisfaction, this paper will show the extent of the application of TQM in healthcare services in Romanian hospitals.

### 2. The current framework of Romanian healthcare system

At the European level, the subject of "health" is presented by the new policy framework entitled Health 2020 which intends to amend the health for people, to increase health equities, to intensify

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public health, but also to assure universal and impartial medical treatment for population. The principal and fundamental strategic objectives of Health 2020 are to enhance health and decrease the disproportion between inhabitants of different areas (urban/rural areas) and boost the support and cooperation of the government to accomplish the health goals by discovering leaders and investors that bring creative ideas which can be implemented in the health system. Based on the above strategies Romania created the National Healthcare Strategy for 2014-2020 which is currently focusing on three strategic goals, namely 1) improving public health: women and children conditions/ nourishment, decreasing morbidity/ mortality; 2) equitable access to health services: for disadvantaged groups; and 3) implementing transversal measures to obtain a predictive and sustainable health system.

Presently, the Romanian health system is rather centralized, as most relevant decisions are made by the Healthcare Ministry. The resource distribution is being done without national or international accepted criteria set (Vlădescu et al., 2016). At central level the systems that must assure provided medical service quality, patient's security, or risk management lacks constant monitorization. Financial resource allocation distribution criteria is not public and a system reorganization becomes challenging as over 50% of the costs of Health Ministry and the National Health Insurance House is depleted by hospitals (Health Profile, 2017). Moreover, the human resources policy also lacks structure and motivation which is why staff retention becomes rather difficult due to low level of satisfaction (Ghenu, 2017).

A change is required, one that ultimately leads to a better organization of the Romanian health system in terms of personnel and patient satisfaction. Total Quality Management (TQM) provides the system with such opportunity. Its appearance dates from the 20's, when initially statistics began to be applied in controlling processes for product quality. Twenty years later, three Americans along with Japanese organizations took it a step forward and focused on all processes within the organization. Until 1960, management along with quality control expanded in the Japanese nation, searching to improve new workplace aspects (example: employee motivation), questioning every aspect of the organizational affairs. Due to the successful application of the newly born concept of TQM, western companies launched their own initiatives, generating a quality movement which focused on quality strategies, programs and techniques.

In health TQM targets the improvement of customer satisfaction, allowing the system to gain profitability by increasing its market share (Lin & Clousing, 1995; Colton, 2000). Since the paper addresses the issue of Romania's health system and its flaws (dissatisfaction concerning health services) TQM becomes of use, as it focuses on the satisfaction index of the patients combining measures that address internal quality with the analysis of the value along with the "conformance to requirements", known as zero defects (Crosby, 1979). In healthcare, the seller can be healthcare facilities and medical personnel (surgeons, anesthesiologists, physicians, nurses, etc.) as they provide their services to the customers (patients) at established prices. An acceptable quality of those services does not refer strictly to the direct actions/ services like diagnoses, treatments, medical procedures and medicines but it does also refer to indirect activities like purchasing and administration costs which are covered by the customer. To the above mentioned, the quality performance amasses (gathers) as it covers healthcare actions such as attitude and behavior of personnel along with their time allocation involving appointments, delays, time per diagnosis/ treatment/ procedure, but also other factors such as good equipment, food, safety and security of the patient.

The practical application of TQM in healthcare was efficient only by pursuing its principles, such as: customer focus, strategic planning and leadership, continuous improvement and learning, empowerment and teamwork, process management tools for process management and quality assurance and control. Al-Shdaifat (2015) explored how private hospitals in Jordan had a successful implementation of TQM principles with visible impact while public hospitals have implemented less than 60% of TQM principles, committing more to customer focus than continuous improvement, concluding the importance of TQM in founding and consolidating the Jordan healthcare system. He was not the only author who emphasized the importance of TQM principles as others like Mosadegh Rad (2005) and Salaheldin & Mukhalalati (2009) focused on continuous improvement and learning, strategic planning and leadership along with empowerment and teamwork. Taking into consideration the importance of quality in the public healthcare systems along with the fact that such topic, with focus on Romanian healthcare system is rather insufficiently represented in the literature (Prejmorean & Vasilache, 2009; Manasi, 2012; Dinulescu & Voicu, 2014; Dobrin, Dinulescu & Cioana, 2015), the present paper proposes to contribute to the topic, by analyzing and establishing the quality

evolution of medical services, personnel and comfort in Romanian hospitals in the past two years and find the extent of the application of TQM principles.

### 3. Research methodology

The purpose of this research is to analyze and establish the quality evolution of the Romanian healthcare system, reflecting the situation in terms of quality of the received medical services, personnel and comfort in Romanian healthcare facilities. To achieve the desired objectives, latest data for Romania was collected from the quality service portal implemented by HBS Group, a company specialized in consulting and optimizing the medical management from 2015, that independently collects and analyzes data on patient's experience related to the quality of services provided by all healthcare facilities in Romania. The portal was created to provide an engineering system which could identify, reduce and eliminate errors for both public as well as private medical entities in Romania. Thus, it collects information from patients all over Romania about the services provided by Romanian hospitals which is why data concerning the following quality dimensions - comfort, services and medical personnel was collected for the research.

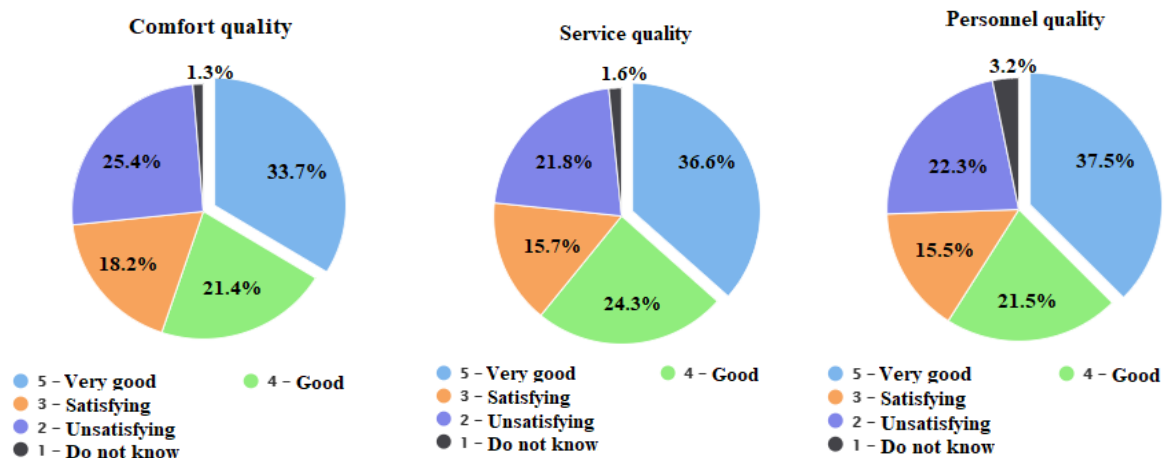
The data collected includes hospital from all 41 counties in Romania, along with the Bucharest municipality. The available standard questionnaire comprises 5 sections addressing the profile of the patient, the quality of their comfort during the hospitalization period, the quality of the received services, the quality of the medical personnel with whom they interacted and at last, the final section which enables the validation of the questionnaire by asking the patient's information and connect it to their hospital admission. The grid of the questionnaire enables people to answer by selecting one of the following options: "very good", "good", "satisfying", "unsatisfying" and "do not know/ will not answer" in terms of quality. The period on which the analysis was conducted was between January 2016 and January 2018 as 2016 was listed as the first year on which the information could be found. The analysis was made by considering comparative evolution graphics. The quality dimensions such as comfort of patient, quality of services and the behavior of medical personnel were analyzed. When the data was not available for each month, on the entire period of January 2016 and January 2018, the results were distributed by taking into consideration the latest accessible information.

### 4. Outcome and discussion

This section analyzed the collected data based on which the average comfort quality, the service quality and the medical personnel quality of Romanian hospitals was established (Figure 1). In terms of comfort quality, aspects such as: general comfort, hospital cleanliness, access to services and facilities (ramps, parking lots, medical offices, etc.), communication with the hospital personnel as well as the services and the care they received were evaluated. Collected data shows in average that, from 1205 respondents, 407 Romanians evaluated the comfort quality of Romanian hospitals as being very good, 306 believe it is good, 258 would say the comfort is satisfying, while 219 were unsatisfied. The rest of 15 respondents checked they do not know or would rather not answer.

Moreover, in terms of service quality, aspects such as: diagnostic, treatment, time of waiting, confidentiality/ intimacy and the possibility to recommend such services to friends and family were evaluated. Gathered data shows in average that around 441 Romanians evaluated very good the service quality of Romanian hospitals, 293 consider it is good, 263 would say the quality is satisfying, while 189 declared unsatisfied. The rest of 19 respondents checked they do not know or would rather not answer. Also, in terms of personnel quality, aspects such as: professionalism of the administrative staff, professionalism of the doctor, professionalism of the nurse, the manager's general activity and the attitude of the medical personnel towards the patient were evaluated. Gathered data shows in average that around 452 Romanians have evaluated very good the personnel quality of Romanian hospitals, 269 consider it is good, 259 would say the quality is satisfying, while 187 declared unsatisfied. The rest of 38 respondents checked they do not know or would rather not answer.

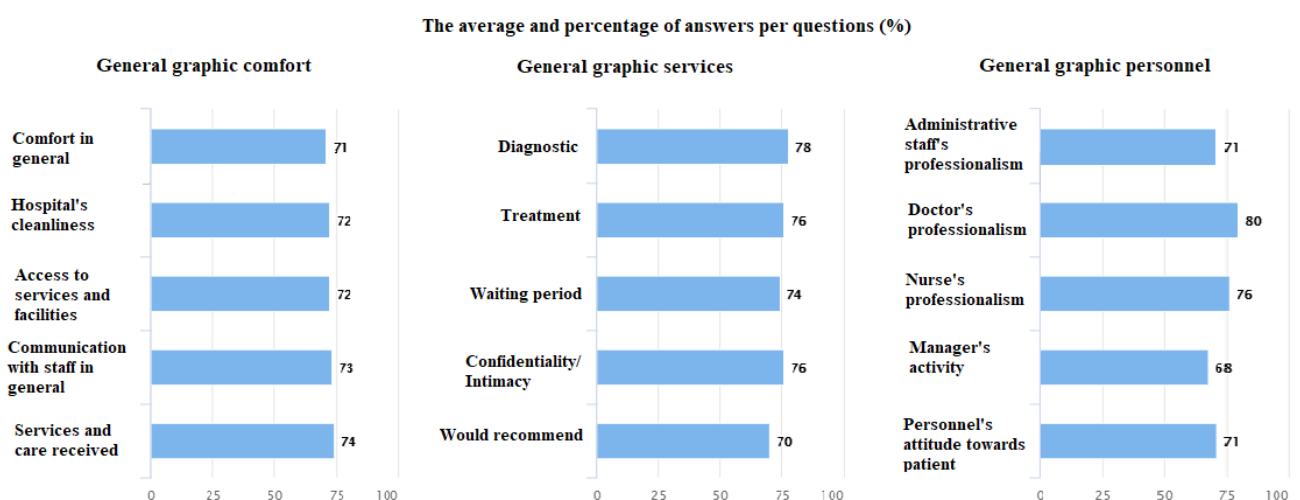
Figure 1: The average representation of quality in terms of comfort, services and personnel



Source: (The HBS Group, 2018)

In addition, each indicator for each section has been analyzed, based on the Romanians' responses to the questionnaire (Figure 2). In average, the comfort does not exceed 74% and this is applicable to the services and the care the patients received. In 72% Romanians are content of the hospital cleanliness as well as their access to services and facilities such as ramps, parking lots and medical offices. Neither did the communication in general with the hospital staff scored higher as the average satisfaction is about 73%. To the above, the average quality of services does not differentiate much from comfort as only the diagnostic scored 78% while the treatment itself along with the patient's confidentiality/ intimacy scored 76%. Still the indicator for the waiting period is similar to the ones in the comfort section which is why in a proportion of 70% the patients would recommend the services they received to their friends and family. Last, but not least, in terms of quality of the medical personnel the indicator concerning the doctor's professionalism has scored the highest average of 80% followed by the nurse's professionalism with 76%. Sadly, the indicators concerning personnel's attitude towards the patient along and the staff's professionalism remain at 71%, which is why respondents have evaluated the hospital's managerial activity at 68% in terms of quality.

Figure 2: The average and percentage representation of answers per questions



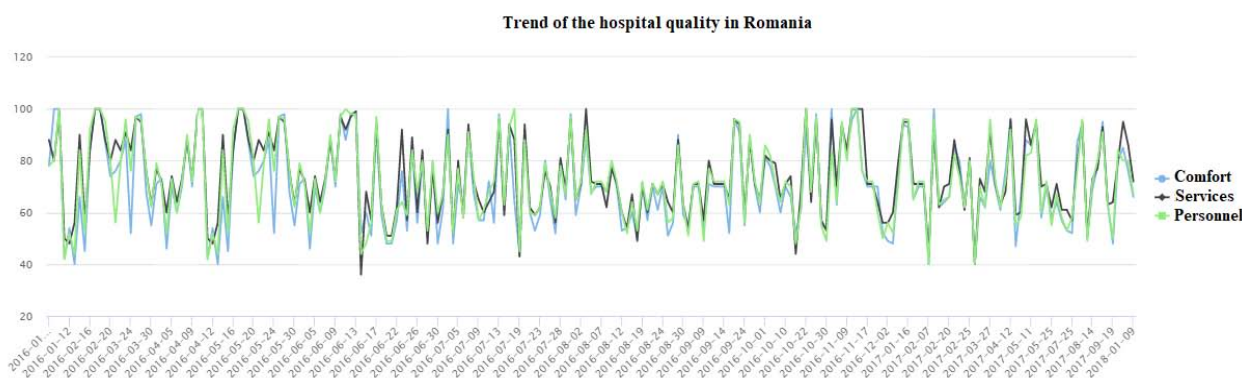
Source: (The HBS Group, 2018)

Based on the above information it was possible to generate a graphical representation of the quality trends in terms of comfort, services and personnel for the period of January 2016 up till January 2018 (Figure 3). When the data was not available for each month, for the entire period, the results were



distributed by taking into consideration the latest accessible information. As it can be seen in the figure below one of the most visible fluctuations in terms of quality is the one of the personnel for a s explained above, administrative staff, nurses lack professionalism by not always presenting in front of patients an appropriate attitude aspect which leads respondents to declare that the manager's activity is not properly done. Based on the collected data, around August 2016, the personnel quality had lower fluctuations up until September. However, as declared by the national travel agencies, over 60% of the Romanian inhabitants choose to go in vacation during the summer and out of the 3 months of summer August is the most preferred in terms of vacation. Thus, a possibility of this lower fluctuation in the quality assessment can happen because a large number of persons were traveling in that period, some of which include doctors. The other possibility of this version is that due to the lower number of patients registered in Romanian hospital in August, the staff was able to better organize their time thus obtaining a working environment less "eventful". Still, the upper and lower peaks of the graphic illustration for services and comfort only strengthens the importance of the principal and fundamental strategic objectives of Health 2020 to enhance health and decrease the disproportion between inhabitants of different areas (urban/rural areas), aspects that are included in Romania's National Healthcare Strategy for 2014-2020 under the name of "equitable access to health services"

Figure 3: The trend of hospitals quality in Romania



Source: (The HBS Group, 2018)

The collected data came from 1205 patients who completed the online questionnaire available by the HBS Group. The questionnaire registered answers from 699 female respondents and 506 male respondents, out of which 92 were under 18, 751 were aged between 18-45, 283 between 46-65 and 79 were over 65. Only 235 respondents came from rural areas while the rest of 970 came from urban areas. The profile of the patients included was not limited as it registered answers from 63 children, 9 preschoolers, 67 scholars, 103 students, 616 employees, 46 owners, 162 retirees, 98 free-lancers and 41 unemployed from which 531 patients required consultation and 674 needed hospitalization. The income per patient was declared under 1000 RON (Romanian Currency) by 282 persons, 1000-2000RON by 473, 2000-3000RON by 203 persons, 3000-4000RON by 107 and 140 persons above 4000RON. From these, 847 completed as patients, 109 as parents, 174 as family members and 75 as accompanying persons.

## 5. Conclusion

Based on the evidence presented in the literature, the progress Romania registered in comparison with the 90's must be underlined. Romania established future development in terms of healthcare based on the Fiscal budgetary strategy 2017-2020, like increasing the access of vulnerable population to health services, improving hospital's network, increasing medical human resources, and providing better equipment. In Romania, over 612520 EURO are to be spent on healthcare facilities, counting also the facilities offered by European Projects. The above evidence reveals that Romania is making a huge effort to improve the quality of health services, by assuring better medical facilities. However, the problems that arise from this study bring into discussion quality assurance principles such as eliminating the errors and preventing by implementing the TQM principles: customer focus, strategic planning and leadership, continuous improvement and learning, empowerment and teamwork, process management activities and tools along with quality assurance and control. Based on the questionnaire, it becomes transparent how presently, the issue of the Romanian medical system does not lie only in

funds allocation but rather in managerial practices like measurements and control. Implementing TQM means a continuous effort to exceed the patient's expectations which at this moment can be defined as: hygienical conditions in medical facilities, shorter waiting periods and respect for patients which we often declare it as personnel's attitude towards patients. These aspects break the first principle of TQM, the customer focus. Regarding the strategic planning and leadership, each facility should assess their situation and establish the most important challenges they will be facing in the three to five years that are yet to come and develop plans to overcome them. Another principle which is often broken is on continuous improvement and learning, but not because initiatives taken but rather because they do not last. Hence, continuous training and adaptation to new situations is required from all members of the medical facility especially with a focus on the young residents that must achieve a higher performance daily. Medical personnel should receive constant training, thus learn how to use new medical equipment and keep up with the constant development. Surely this is done by respecting the principle of empowerment and teamwork for young medical personnel even though educationally qualified, must still learn the practice on the job with help provided by the doctors with seniority and experience, whom must not treat the young doctors with lack of respect or the other way around. Involving process management activities such as planning and administrating activities designed to obtain a higher performance and maximize the customer's satisfaction in the process. This is also done by using process management tools such flow charts, fishbone charts, control charts, histograms, check-sheets or others. This principle is mostly broken in situations in which emergencies that arise in rural areas are not correctly administered or planned and the patient's transportation to a better equipped hospital is delayed or in some situations even impossible. For the last principle to be applied, quality assurance and control constant actions that target quality planning, controlling and improvement are required. Firstly, there are actions taken from the government such as: assuring that medical facilities function within the appropriate legal boundaries and meet the quality standards. Among these quality standards we find personnel's responsibility to patients, safety treatment conditions (hygienical) and medication and civilised environment.

In conclusion, the Romanian medical system has not implemented the TQM concept, at least not throughout all 41 counties. The current study enables the foundation for such an implementation, which should be applied at all levels of medical care facilities. So far, the study was limited to 1205 respondents that received medical care in the last 2 years out of the approximately 20 million inhabitants in Romania, as data collection is a difficult process that requires time and commitment as well as proper data analysis for interpretation. The data interpretation is also exposed to people's lack of transparency and increased empathy and emotionality aspects that eventually may influence the objective responses of a person in the questionnaire.

Because it is difficult to implement measures that target quality in a system so dynamic and complex such as the healthcare system, TQM particularly requires an implementation that is done from inside the facility with consideration towards external environment in this situation patient's satisfaction. Hence, the key in implementing TQM is to involve a team composed of both medical managers as well as business managers for total quality cannot be done without considering all aspects of the activity. Only after all processes are being considered, only then the TQM will have a chance to be successfully implemented.

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## PLACE OF BLOCKCHAIN IN ECONOMY

**Abstract:** Digital financial management made clients insecure, although online transfer security came a long way, many are still skeptical about doing their finances through computers. We explained the benefits as well as the disadvantages of implementing blockchain in this field. The economic approach, in this paper, is kept simple and the goal was to bring the blockchain technology closer to readers that are not from IT (information technology) sector. Its importance is neglected and needs to be explained and brought closer to the users. Huge clients, such as banks, do not like changing their systems. Even though this should not be as dramatical as the migration from physical to digital archives, right now it seems to be.

**Keywords:** digital, security, finances, guarantee;

### 1. Introduction

Information security, authenticity, and credibility are compromised which requires new solutions to eliminate these obstacles. Tendencies are to completely eliminate the element of trust in-between any entities that are holding any type of dialog in the cyber world. Entirely trust-less transactions led to the creation of cryptocurrencies. They are based on blockchain technology. There has been a lot of talk about it but not many outside the information technology field understand how it really works. The most practiced shape of blockchain is undoubtedly the cryptocurrency. Whilst those currencies have their own markets and could devalorize paper money in the future, blockchain does not have to be exploited only in that manner. Bank records, contracts, and the way money is kept can be improved in terms of security and efficiency. In terms of computer evolution, this puts blockchain and information security back in the same room. Besides chained data, only security the content of the block has is the private key that only the owner knows. If the key is lost nobody can access the data of that block anymore. There is no support or call centre that can reset the password because this is not a password. It is the root of the information that is put in the block and it is too complex that it cannot be replicated by knowing any other information that could possibly be obtained about the block. Only new information can be manipulated and an anonymous person has to verify it. Verification of the content takes time and computers have to use algorithms to find the combination that will fit the next block perfectly. This is a way to earn cryptocurrencies. Verification consists of checking if the content has a valid source back in the chain. The chain starts with a genesis block. Genesis block contains an identifier of 1 and its hash (Rosic, 2018) of the previous block is all zeroes. Besides the old hash and the identifier, every block contains the difficulty of mining it (Houy, 2014), the hash of its whole body, and the secret number that the miner has to match to the next block. Only a few had something against doing their finances through computers, but almost everyone had something against doing what they do not understand and what they cannot control. A huge amount of trust was required for people to give their money to somebody and not completely understand what is going on. The greatest struggle for consumers was to rationalize an agreement like that and that was the root of PayPal's struggles. The goal was to find a way to make transactions secure and after that make it explainable to an average person. Great marketing play to stop customers from being afraid was a free 10\$ once they create their account and 10\$ for every other account that got registered from their name. This made the company get enough attention and investment as well. Users started caring less for the security and that gave time for the company to improve their system. Today, online economy is blooming and if people can accept that, in the same spirit, they need to be familiarized with blockchain. After masses begin to understand it blockchain's biggest obstacle will be crossed and, with more people involved, they could see the benefits that we already did not. The blockchain star is no doubt the bitcoin, a

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cryptocurrency that was first ever used and that is worth the most to day. Bitcoin economy is an ecosystem for itself. Some of the fundamental rules apply but its nature is a huge factor in how its price rises or falls (Swan, 2015).

## 2. Benefits and Influence

Advantages of blockchain technology are vast and it is quite possible that all the ways in which it can be exploited have not been discovered. The most interesting use of this technology are not transactions but storing structured information, as discussed in the interview with Don Tapscott (Tapscott and Kirkland, 2018), meaning that the best way to store legal, or any information that has to be reliable and verified, is in blockchains. This type of storage removes the reputable verifier, like government organs, of information and replaces it with a network of hierarchically the same verifiers that can all do it, but due to requirements of undertaking many different combinations, only the first node that embeds it right gets that particular verification done. Not a single individual's reputation can dispute what everyone else is claiming. This is a peer to peer network and every new block requires having roots that can explain how the new stuff got there. If someone asserts otherwise his information can be easily checked by other nodes in the network. Blocks are protected by private keys that are used for encrypting them. They are decrypted by public keys. The public key can only unlock a message sent with its matching private key. If a message decoding is attempted with a different public key it will result in nonsense. But if the message was tampered with the only way it could be seen is by checking the hash. If it does not match the message was changed along the way. Every block consists of a number of fields and one of them is the whole previous block only hashed. If the hash of the previous block does not match the previous hash in the new block this means that someone tampered with the previous block. This is an undeniable proof of the stored information because the block before is containing the two blocks before completely, just hashed. Creating more blocks after the block that information was entered in makes that block more reliable and reduces the chances of discrediting it. By every new block, the information entered gets more hashed and becomes a part of a bigger sequence. It is possible, in theory, to falsely place information, but this requires 50% of the world's computing power plus one computer, in practice this would be more. This way it is possible to confirm new blocks faster than anyone else and to outrun them and make the needed, newly placed information seem valid. If this would happen to a public blockchain, such as currencies are, every node's owner would abandon and that cryptocurrency would lose all of its value. In this case, there is no winner and that is why certain powerful mining pools (Lewenberg Y. et al., 2016) split themselves at certain points in time.

The difference a blockchain can make can be easily observed when it comes to tasks that require organizational skills and synchronized teams. Blockchain oriented databases offer simpler asset tracking and do not require a person responsible for these assets. The nodes in their private network will always confirm the data and easily trace it back to where it came from. This allows tracking items through complex chains. Companies that are its own suppliers are rare and modern companies depend on many suppliers. This enables such companies, as customers, to know where their ordered shipment came from and where it is in that moment. Furthermore, better organization of blockchain databases administers better supply management. Resources can be arranged more easily that results in the increase in profit.

Smart contracts (Luu et al., 2016) are a very powerful tool that is brought by blockchain technology. Their structure allows for making certain conditions on which certain actions will be completed automatically. Terms, time limits, quantity and everything else that a regular contract defines can be more securely defined and enforced with smart contracts.

Cryptocurrencies can greatly reduce and even remove monopoly of banks. There are still chances of colluding but it is very hard and still not as rewarding as with the paper currencies. In blockchain technology, the dependency is on many other nodes and other people. The important thing is that they also depend on each other. Once understood and implemented blockchain systems are much easier and more practical to use. Human legal entities are not required and corruption is no longer an option.



### 3. What is holding blockchain back?

Blockchain and cryptocurrencies are currently confusing terms but they are not unknown words. Almost everyone has heard about them but not many fully understood the meaning. Great prior knowledge of information technology is required to understand them and this makes it tremendously hard for IT experts to explain it to a person that is not from this industry. The decision on transferring assets from current database to an unknown system hardly reaches the important people in such enterprises. The technical staff in such workspaces is not motivated to explain the technology and system to people that are not experts. This gap between technology and economy needs to be reached. Only if IT experts could make it simpler for the economists and bankers. This leaves a big field for investments if somebody could bring these systems closer and take up in such field as their main business.

Cryptocurrencies seem to be notorious because they are mostly applied for transactions on the darknet because they allow for anonymity with a combination of certain methods. They are being used for buying and selling every sort of illegal merchandise that customers do not want to be tracked. These currencies are also used in paying the blackmail when a group of hackers gets a hold of the whole systems. Society does not like this and it would rather still use physical money. At least it seems like there are fewer problems with it, but that is untrue.

To have a private blockchain some serious computing power is needed. Servers are not cheap and more than one computer is needed so different nodes could be made. Strategies to decrease the expenses exist but they require careful planning and detailed analysis. The network size does not have to be precisely defined nor excessively big. The amount of needed storage can be estimated and a possible expansion can be predicted.

### 4. Future development

Having an unchangeable history of medical issues and secure information is very important in health care. Distributed ledgers can make sure of having that information in every scenario and it eliminates the liability of forgetting what was patient treated with and from. It also excludes the fact that medical information could purposely be changed to hurt a person or even hide what was done to them.

Public records are an important aspect of modern society. Ownership of assets, large transactions history, and other paper recorded actions requires verification. As mentioned before blockchain removes the trusted government entity and provides more efficient organization, in case of public records simplifying the search for individual's information. This type of databases also make criminal databases more effective in tracking them down, and with technologies like facial recognition becoming a normal thing, better databases are required to keep up with the technological innovations (Kilgour, 2013).

Smart cities are a realistic goal that is waiting around the corner. The idea includes all the latest technologies and the only way to keep up with logging all the actions that have been executed is with a blockchain database. To perceive the chain more easily it should be viewed as a tree, and every person can have their own branch that is part of a bigger branch and so on to the root. Privacy concerns are superfluous because of the complexity of algorithms used to create private keys.

### 5. Conclusion

The blockchain has undeniable safety of information that was first entered. It is a highly sophisticated database, in comparison to current methods, that can remove the trust factor of two entities from the equation of data jeopardization. Better asset organization is imperative for future improvement to databases that blockchain provides. Assets are easier to track and are better arranged. Smart contracts provide an easier exchange of services or goods between two sides and without any doubt execute programmed actions under defined conditions. While mostly being used for illegal businesses

cryptocurrencies can bring good to the society and make it safer. The biggest limitation of blockchain is the unaware society that is not enough interested in learning about it. If more people were involved more ideas would be made. Ignoring this technology cannot last long because the plans of the society for the future require such technology. Blockchain is promising and it holds a huge potential that will not be easy to achieve.

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## AN UPGRADED PETRI NET MODEL-BASED ANALYSIS OF THE KNAPSACK PROBLEM

**Abstract:** This paper presents an approach to solve the Knapsack problem using Upgraded Petri Net (UPN). The problem may be presented as the selection of the cars featuring certain length and price resulting in the appropriate placement of cars in a truck container of a given length. The models developed in this research refer to an appropriate genetic algorithm extended with the correctness function. This paper describes the simulation and analysis of the UPN models. It should be pointed out that previously developed Petri Net Manager (PeM) is used to simulate and analyze the models presented in this paper.

**Keyword:** Upgraded Petri Net ; Knapsack problem; Genetic algorithm; Modeling; Simulation; Analysis.

### 1. Introduction

This paper presents Upgraded Petri Net (UPN) model solving the Knapsack problem using a genetic algorithm.

Petri net was the basis for creating a new net named Upgraded Petri net (UPN) which is appropriate to modeling, simulation and analysis of parallel processes, especially at the RTL (Register Transfer Level) (Diaz, 2010; Girault and Valk, 2003; Štrbac and Milovanović, 2013). We can use UPN to make the initial model, and after careful analysis make changes to it until wanted model is reached. By using one original interactive program Petri Net Manager (PeM) it is possible to make UPN models to use the cycle of: UPN execution, analysis and interactive changing of the whole or of a part of the model. UPN enables some models to be made at various level of details. Some parts of UPN model can be at one level of details while the other one can be at the same time at different level of details (Štrbac and Milovanović, 2013).

Further, Knapsack problem involves the selection of some of the cars in question and putting them into the transportation truck container in such a way so as to maximize the total cost of the cars selected where the constraint is the length of the container (Zhang et al., 2013). One of the solutions of the Knapsack problem is to use Genetic Algorithm (GA). In the paper we make the UPN models of the appropriate genetic algorithm, do simulation (parallel execution of the UPN model) and analysis and at last convert the final model to C++ program which generates results enabling us to check given UPN models.

### 2. A brief overview of the UPN formal theory

This chapter includes a brief overview of the UPN formal theory for easier understanding of the UPN models in this paper. For all details of the theory see (Štrbac and Milovanović, 2013). The UPN formal theory is based on functions and it is a nine-tuple:

$$C = (P, T, F, B, \mu, \theta, TF, TFL, PAF),$$

where:

$$P = \{p_1, p_2, p_3, \dots, p_n\}, n > 0$$

- a finite nonempty set of places  $p_i$

$$T = \{t_1, t_2, t_3, \dots, t_m\}, m > 0$$

- a finite nonempty set of transitions  $t_j$

$$F: T \times P \rightarrow N_0 \quad \text{- Input Function;}$$

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$B: T \times P \rightarrow N_0$  - Output Function;  
 $\mu: P \rightarrow N_0$  - Marking Function;  
 $\theta: T \times \Delta \rightarrow \lambda$  - Timing Function;  
 $TF: T \rightarrow A$  - Transition Function;  
 $TFL: T \rightarrow N_0$  - Transition Firing Level;  
 $PAF: P \rightarrow (x, y)$  - Place Attributes Function;  
 $N_0$  represents the set of non-negative integers.

The function  $F$  assigns a  $N_0$  number to an ordered pair  $(t_i, p_i)$  and defines how many times the place  $p_i$  is input as compared to the transition  $t_i$ . Because of two types of input arcs, standard and inhibitor, there are two sets of input places as compared to the transition  $t_j$ :  $*t_j^S = \{ p_i \in P, F^S(t_j, p_i) > 0 \}$  and  $*t_j^I = \{ p_i \in P, F^I(t_j, p_i) > 0 \}$ , respectively.

The function  $B$  gives a  $N_0$  number to the ordered pair  $(t_i, p_j)$  and defines how many times the place  $p_i$  is input in relation to the  $t_i$  transition. The set of output places which are input in relation to the  $t_j$  transition is presented as  $t_j^* = \{ p_i \in P, B(t_j, p_i) > 0 \}$ .

The function  $\mu$  assigns a  $N_0$  to the  $p_i$  place and can be defined as  $n$ -dimensional vector:  $\mu = (\mu_1, \mu_2, \dots, \mu_n)$ , where  $n = |P|$ . Instead of sign  $\mu_i$  we can use the sign  $\mu(p_i)$ .

The function  $\theta$  assigns the probability  $\lambda_{ij} \in [0, 1]$  to an ordered pair  $(t_i, j) \in T \times N_0$ , i.e.,  $\lambda_{ij} = \theta(t_i, j)$ .

The function  $TF$  gives an operation  $\alpha_j \in A$  (arithmetical operation - result of  $\alpha_j$  will be placed into the attributes  $x$  of the places  $p_i \in t_j^*$ , logical operation - result of  $\alpha_j$  enabled or disabled the transition  $t_j$ , file operation - operates over the context of a file with  $*.mem$  extension) to the  $t_j$  transition, where the sign  $A$  is the set of operations which can be assigned to the transition.

The function  $TFL$  gives a  $N_0$  number to the transition  $t_j$ . If this number not equals zero, it shows the number of  $p_i \in *t_j$  places takes part in the transition firing, and if this number equals zero, then all the places  $p_i \in *t_j$  affect the  $t_j$  transition firing.

The function  $PAF$  assigns an ordered pair of attributes  $(x, y)$  to the place  $p_i \in *t_j$ , where  $x \in R$ ,  $y \in N_0$  i.e. value and order of operand of  $\alpha_j$  operation assigned to the appropriate transition.

Execution of an UPN model is triggered by firing of the transitions which changes state of the model.

A transition  $t_j \in T$  can be enabled in the UPN:  $C = (P, T, F, B, \mu, \theta, TF, TFL, PAF)$  if the next 3 conditions are satisfied:

1° If the timing function  $\lambda_{jk} = \theta(t_j, k) > 0$ ; (1)

2° If  $TFL(t_j) > 0$  then  $(\#p_i(S)) + (\#p_i(I)) = TFL(t_j)$ , and if  $TFL(t_j) = 0$  then  $(\#p_i(S)) + (\#p_i(I)) = |*t_j|$ , where  $\#p_i(S)$  is a number of places  $p_i \in *t_j^S$  such that  $\mu(p_i) \geq F^S(t_j, p_i)$ , and  $\#p_i(I)$  represents a number of places  $p_i \in *t_j^I$  for which  $\mu(p_i) = 0$ ; (2)

3° If a logical operation  $\alpha_j \in A$  assigned to the transition  $t_j$ , then the result of the operation  $\alpha_j$  must be equal to true. (3)

A marking vector  $\mu$  will be changed to new marking vector  $\mu'$  by firing of transitions  $t_j$ , where:

$\mu'(p_i) = \mu(p_i) - F(t_j, p_i) + B(t_j, p_i)$ , for places  $p_i \in *t_j^S$

$\mu'(p_k) = \mu(p_k) + B(t_j, p_k)$ , for places  $p_k \in *t_j^I$

By firing of the transition  $t_j$  appropriate transition function is executed if the function was assigned to this transition.

An UPN is represented by bipartite multigraph as is in Petri-net. A conflict in UPN is the same as the conflict in Petri-net. An UPN reachability tree is as in Petri-net. An UPN flammability tree is a tree which is made of marking vectors which are generated through parallel firing of the enabled transitions.

### 3. The Genetic Algorithm

A GA which will be modelled in this work to solve the Knapsack problem is based on the following sequence: make population of chromosomes – calculate fitness – choose elitism – populate a new generation by crossing – do mutation – go again to calculate fitness (Boyer et al, 2012)(Gonçalves and de Queiroz, 2014). This sequence is repeated  $c$  times and finally we choose the best chromosome.

In this paper the chromosomes are encoded as a vector which contents can be 0 (meaning that the car is not chosen) or 1 (meaning that the car is chosen). The index of the vector corresponds to the index of an input car. The main goal is to find the maximum of the total price of the chosen cars over the set of

chromosomes through  $c$  iterative cycles with respect to given length of the truck container.

The chromosomes in the population will be evaluated by fitness function which is determined by the total value of length and price attributes of the chosen cars.

The sequence of the appropriate GA is as follows:

- a) Make initial population of chromosomes;
- b) Calculate the fitness - determined by the total value of length and price attributes of the chosen cars;
- c) Choosing some percent of the best evaluated chromosomes to go to the next generation as elitism;
- d) Populate the rest of the next generation of chromosomes - by using roulette-wheel parent selection from the current population of chromosomes;
- e) Crossing - as one-point crossing of two parents to generate two different offspring chromosomes;
- f) Mutation - by inverting randomly selected element in a chromosome vector;
- g) Calling our correctness function - which forces every chromosome to satisfy given length limit condition;
- h) Adding new offspring to the next generation
- i) Go to step (a).

After  $c$  cycles of genetic algorithm the best chromosome will be our solution for the Knapsack problem.

#### 4. The UPN models

An UPN model which refers to mid-level presentation of our genetic algorithm which solving presented the Knapsack problem is shown in Figure 1 (Gendreau et al., 2006; Sachdeva and Goel, 2014; Mohanty and Satapathy, 2009).

The appropriate sequences of transition firing is as follows:

- $\{t-1, t-2\}$  (loads vector of lengths and vector of prices of the cars),
- $\{t-4\}$ -8 times (makes initial population),
- $\{t-5, t-6\}$  (consumes markers from the places  $p-2, p-3$  and sorts population by two parameters),
- $\{t-8\}$  (choose elitism and add to new population),
- $\{t-10, t-11\}$  (choose two parents),
- $\{t-10, t-11, t-9, t-12\}$  (choose new two parents and cross previous parents),
- $\{t-10, t-11, t-9, t-12, t-13, t-14\}$  (choose new two parents and cross previous parents and mutate offspring),
- $\{t-9, t-12, t-13, t-14, t-15, t-17, t-3, t-16\}$  (cross parents, mutate offspring, call correctness function and add offspring to the new population, consumes markers from the places  $p-12, p-10, p-7$ ),
- $\{t-13, t-14, t-15, t-17\}$  (mutate offspring, call correctness function, add offspring to the new population),
- $\{t-15, t-17\}$  (call correctness function and add offspring to the new population).

Now, the sequence is initiated which sorts a new population by two parameters ( $\{t-6\}$ ) then generates the next population through previously mentioned sequence and makes a new sorting again ( $\{t-6\}$ ).

Now, the transition  $t-7$  is enabled and by firing of this transition and execution reached the dead node. Final marking is  $\mu_{(p-13)} = 1$  (the best validated chromosome) and  $d\mu_{(p-11)} = 7$  (the rest chromosomes).

The previous mentioned sequences show parallelism, synchronization and pipeline in the UPN model.

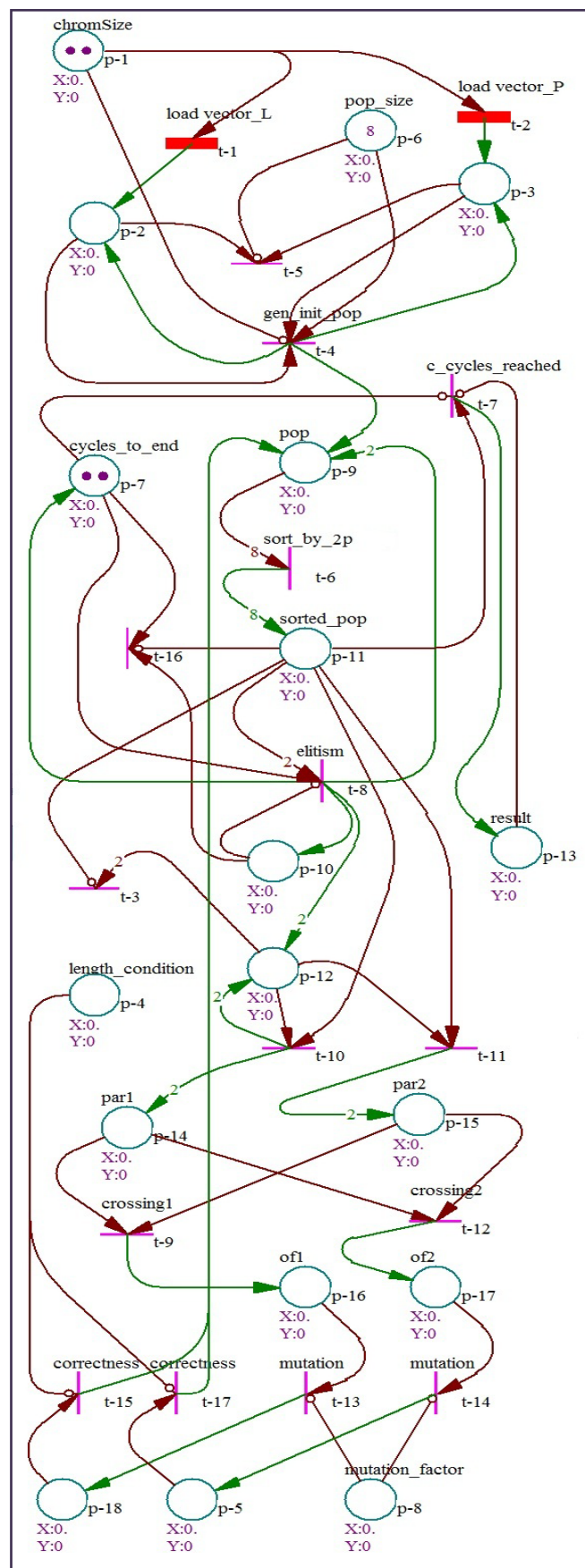
Synchronization is achieved by using three conditions of the UPN model executions (1) (2) (3).

The UPN model of correctness function is shown in Figure 2.

The correctness function calculates the total length of the selected cars. If this total length is greater than the limit value (the length of the container) then the correctness function will remove a car by car from chromosome until the limit length is reached.



Figure 1. UPN model of genetic algorithm of the Knapsack problem, mid level.



Source: Authors, y. 2018.

An initial marking is:

- $\mu_{(p-3)} = \mu_{(p-17)} = \mu_{(p-18)} = 1$  refer to counter ( $X:0$  is a initial value of counter);
- car 0 is included ( $p-6:L0:X:5$  is a length of car 0);
- car 1 is included ( $p-8:L1:X:3$  is a length of car 1).

The appropriate sequences of transition firing is as follows:

- $\{t-4\}, \{t-10, t-3\}$  (adds length of the car 1 to total length,  $p-12$  and starts increment counter value sequence, respectively);
- $\{t-2\} \{t-1\}$  (increments counter value);
- $\{t-6\}, \{t-11, t-3\}$  (adds length of the car 1 to total length,  $p-12$  and starts again increment counter value sequence);
- $\{t-2\} \{t-1\}$  (increments counter value);
- $\{t-9\}$  (does not include length of the third car which is not included);
- $\{t-3\}$  (top counter value reached).

At this moment  $p-12:X=8$  (total length of included cars) and place  $p-5:X:7$  refers to length limit.

If total length is not greater than length limit then net reached dead node, otherwise starts the sequence as follows:

- $\{t-14\}$  (total length is greater than length limit);
- $\{t-16\} \{t-15\}$  (excludes car 0,  $\mu_{(p-17)} = 0$  and its length from total length) and the net reached dead node (total length is 3 while length limit is 7).

If we set  $p-5:X=-1$  (there is no space, i.e. length to transport) before the sequence which begins with firing of the transition  $t-13$  starts, then the next sequence will occur:

- $\{t-14\}, \{t-16\} \{t-15\}$  (excludes car 0,  $\mu_{(p-17)} = 0$ ),
- $\{t-19\}, \{t-20\} \{t-18\}$  (excludes car 1,  $\mu_{(p-18)} = 0$ ),  $\{t-23\}$  (it checks was the car 2 included),
- $\{t-25\}$  (because car 2 is not included and the net reached dead node).

In the UPN models shown on Fig. 2. and Fig. 3. we use as follows:

- transition function (none, EQ - equal, NEQ - not equal, COPY\_COND - copy condition, INC - increment, ADDCOND - add condition, GT - greater than, SUBCOND - sub condition) supported in suite PeM;
- transition firing level (0, 2, 2, 3, 1, 3, 2, 3, respectively according to the above-mentioned transition functions);
- marking function (at start for the initial state of the UPN model while later it changes automatically through parallel execution of the sets of enabled transitions),
- place attribute function - refers to X and Y attributes;
- front function with standard arcs (such as  $F^S(t-4, p-3)=1$ );
- front function with inhibit arcs (such as  $F^I(t-5, p-3)=1$ );
- back function with standard arcs (such as  $B(t-4, p-4)=1$ ).

All timing functions of the model are left by default in suite PeM i.e. do not influence execution of these models.

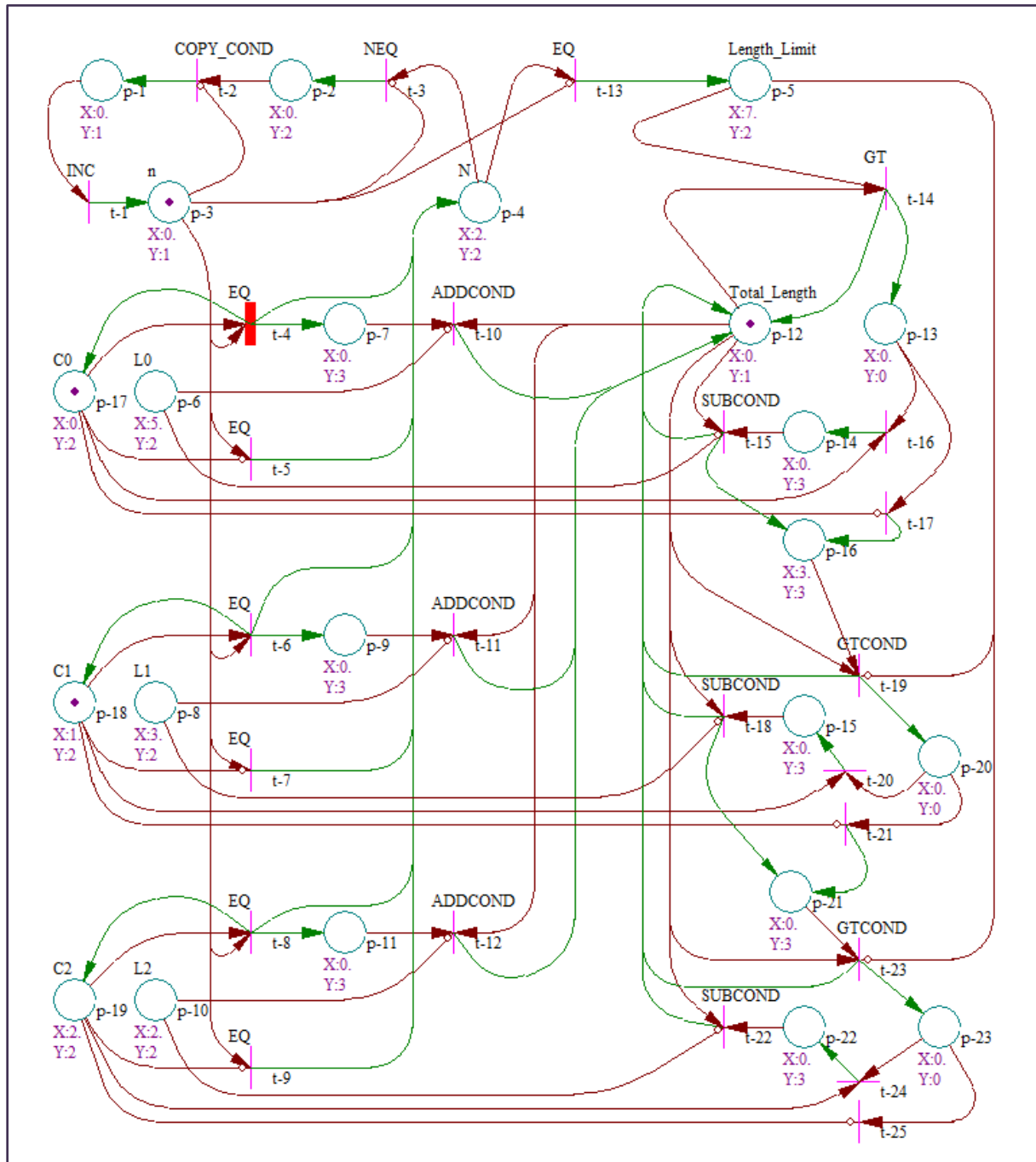
## 5. The UPN model Analysis

The UPN models analysis was done into two phases. The first one refers to transforming the observed UPN models shown in this paper in a software program using C++ language.

The second one refers to checking behavior of the UPN models shown in the previous chapter by executing the software program which refers to the models presented in this paper. This software program has been tested for various values of input parameters. The 60 cars data was placed in an input file which includes 60 pairs of length-price values of the cars which belong to intervals of 3.00 m - 6.27 m and 10000 EUR - 22767 EUR, for length and price of the car, respectively.

Some of obtained simulation results are shown on Figure 3. These results refer to the input parameters as follows:

Figure 2. UPN model of correctness function

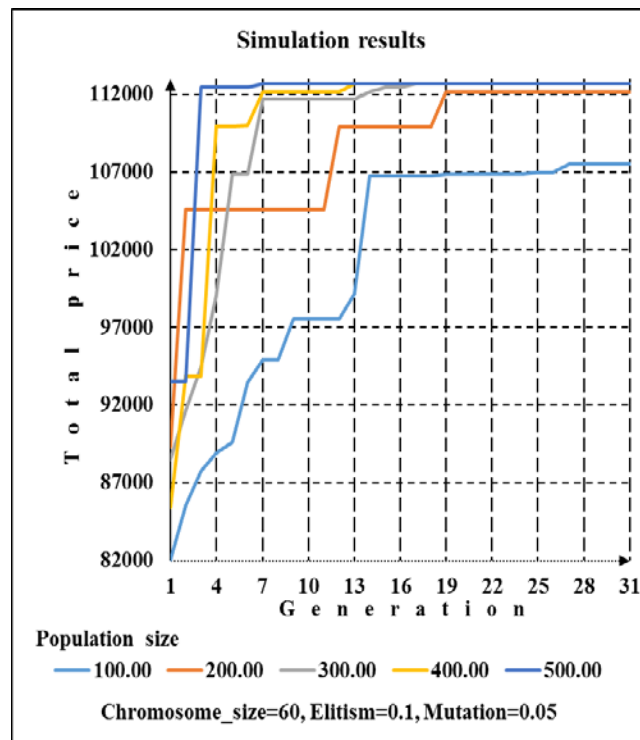


Source: Authors, y. 2018.

- number of cars is 60 (chromosome size);
- length limit is 20m;
- elitism rate is 0.1;
- mutation rate is 0.05;
- population size is equal to 100, 200, 300, 400 and 500chromosomes, respectively.

The results were obtained in 20 independent simulations per each population size and refer to the best chromosome in the population with respect to maximum total price and satisfied length limit. The validity of the UPN models presented in this paper was confirmed by the results of the implemented software program.

Figure3. Simulation results.



Source: Authors, y. 2018.

Table 1. The best generation with and without the correctness function.

	Population size (chromosomes)					The order number of the best generation
	100	200	300	400	500	
With correctness function	27	19	17	13	8	
Without correctness function	29	20	19	14	9	

Source: Authors, y. 2018

The results which are shown in Table 1. present how the correctness function influences the order number of the best generation. By using the correctness function we can reach the best generation a little bit earlier.

## 6. Conclusion

This paper presents one approach to model, simulate and analyze the UPN net which refers to solving the observed Knapsack problem. The presented models show implemented synchronization, parallelism and transition function, transition firing level and place attribute function as specific part of the UPN.

In order to verify the correctness of the models and after careful analysis, the models are transformed into C++ program. The results of this program execution are shown for various input parameters of the GA. The UPN suitability for the given problem was checked by execution of the real program.

The model uses correctness function which is added into base GA model to do correction on a chromosome after mutation according to the constraints.

All models, their simulation and analyses were done by one original PeM.

Further, the model should be upgraded to present multi-constraints Knapsack problems and with other class of genetic algorithm.

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## DARKNET AS AN ANONYMOUS COMMUNICATION AND DATA SHARING MEDIA AND AN INTELLIGENCE CHALLENGE

**Abstract:** We live in an era where technology and communication are two interconnected fields. In this era it is possible to buy or sell things, to plan and organize events and do all kinds of things without leaving your home or office. Social Networks provide us with a new channel of communication and data sharing (along with other services on the Web). All of these help us be more productive in (business, family relations), but with all of this good things for us, there were some bad developments too. The internet, or the Web has become a tool for all kinds of criminal entities, terrorist organizations and malicious individuals, so states had to be actively present on the Web in order to monitor the situation. This is the reason why we got in the spiral of constant development of new means for monitoring, and new ways to evade these measures. One of the most famous ways for anonymity on the Web is so called Dark Net, it is a new deep level of the Internet, where anonymous communication and data sharing takes place. This paper is a part of scientific efforts to explain and describe Dark Net and technologies behind it, and their role in a security mosaic of this era and the challenges that it presents to intelligence services. All of the research will be done using methodology of social sciences, like literature analysis and others as needed.

**Keywords:** dark net, security, intelligence, cyber security

### 1. Introduction

We live in times where technology and communication are two interconnected fields. Much of the communication between people takes place through various networks and digital communication channels. In early and mid-20<sup>th</sup> century communication took the greatest leap when telephone entered every home or business and became an important communication channel. A similar great leap happened in the last two decades of 20<sup>th</sup> century, when computers entered homes and offices and when Internet and World Wide Web emerged.

All these developments eventually led to overreliance on modern means of communication, in a digital world through networks. Today, most homes and offices all over the world have computers connected on some network, which is eventually connected to Internet (World Wide Web to be precise). Many people carry their smart phones and other mobile (computer like) devices that are also connected to various networks, and to the internet. Most of us use all of these gadgets every day to communicate, organize events, do business and socialize.

There are many people that use so called social networks for marketing, self-promotion and communication with their friends, family and business partners and colleagues. These devices became an integral part of our social, family and professional life.

One of the services that Web provides us with are social networks (Facebook, Twitter, Instagram, YouTube, etc.) that all have a very large pool of users. People use social networks to communicate, to make new connections and to share content.

World Wide Web with all of its services became a fertile ground for many illegal and malicious activities, too. All of the developments mentioned above also have their dark side. The same way that

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ordinary people use all of the services that Internet and Web have to offer, same thing stands also for criminal entities and other forms of malicious organizations and/or individuals. Much of the activities of before mentioned entities, especially those related to organization of various illegal activities moved from physical plain to the Web, or to be more precise the - Cyberspace (from planning to laundering money and other logistics). Of course there are even many new forms of illegal activities where all of the action takes place over the Internet (from money exchange to illegal content/data sharing).

All of these developments led to the involvement of states and state monitoring and even control over digital communication channels (namely the Internet, the World Wide Web and mobile networks). These new developments made all of communication channels (from telephone lines to network communication prone to eavesdropping and control).

That led to a new problem for businesses and even individuals, the lack of privacy and greater risk of economic and industrial espionage over traditional communication media (telephone, Internet, mobile communication and even traditional postal service).

All these developments present one of the consequences of terrorist attacks of 9/11/2001. After these attacks occurred state control over all of the communication increased to a highest level in history, all over the world. Even before this latest developments people/Internet users were looking for a way (new means and tools) that would make their communication and Internet surfing anonymous and protected.

In 2002 one such tool emerged from US Naval Laboratories and became widely available to those informed individuals. This was a first technology for a anonymous Internet search, a anonymous and protected communication called the TOR Project. The TOR Project was the first technology of its kind, but later other similar networks emerged, so the colloquial name for all of them was, and still is The Dark Net.

This paper has been written with two goals in mind, one goal is to contribute to professional efforts of Intelligence Communities by exploring and describing the Dark Net and related technologies development with special attention to their potential impact on global and national security and on the work of Intelligence Services themselves. The other, scientific goal is to scientifically analyze, explore and describe the relationship between communication control imposed by governments and the emergence of anonymous technologies, and to describe the risk they potentially pose for National and International Security. Research for this paper is mostly based on live research and exploration of Dark Net and its technologies by scientific observation and on content analysis from relevant Internet and Dark Net Websites. On the other hand literature analysis in this paper has a role of a supplementary source for clarifying some facts obtained through live research on the Web and Dark Net and to strengthen the argument derived from the 3 year long research.

## 2. Defining and explaining key terms and expressions

First we have to explain and define some common terms and expressions used in this paper, like Internet, World Wide Web (Web), Deep Web and Dark Net (Dark Web).

The first term that is going to be explained and defined is the Internet. The internet is a project that emerged from academic and military laboratories in late eighties and early nineties. The first name for this network was ARPA Net, because it was developed as a part of initiative/project financed by Defense Advanced Research Project Agency in the 50's and 60's.

In the beginning the role of this network was to connect computers of various scientific institutions and universities, and at a later stage government agencies joined too. In order to further develop this project it became freely available to the public in 1995. The internet at first didn't have all that was needed in order to become a network of networks, as it is called today, and it couldn't provide ordinary people the services we all know today (social networks, chat rooms, forums, electronic trade, etc.). With the development of the Web (World Wide Web) that had been implanted in CERN in

1989 it was finally possible for wider public to enjoy early forms of chat rooms, forums and even social networks and electronic markets/trade at a later time. To be precise Web had been presented to the wider public in August of 1991.

One logical question that arises from this is what is the Web? Well the Web (World Wide Web) presents some kind of an information/electronic space where documents and other Internet resources are identified by URL's (Uniform Resource Locators) and interlinked by hypertext links.

In other words this space is virtual and constructed by computers connected to a network, and this space represents a form of regulated inter computer resource exchange. This space or layer is responsible for the technical way in which computers govern communication and services through the exchange of computer resources and electronic documents.

There is one new term or expression that is used to describe and define a social aspect/human aspect of computer users interaction/communication, that expression is Cyberspace.

In the book "Cyber Intelligence Analysis: New Intelligence Discipline- Short Study" author of this paper defined Cyberspace as follows:

*"Cyberspace is a kind of virtual space that is created by computers that are connected to networks. This space is characterized by communications and interactions between the users (people)"* (Krštenić, 2017, p.9).

What author of this definition is trying to say is that Cyberspace is a form of virtual space that is governed by the rules and protocols of the Internet and World Wide Web mostly, but it has a much wider scope. This space is not limited just to the Internet, it encompasses all the communication and interaction of the people (users) in a networked/digital communication environment.

Here we have many services that people use for their communication, interaction and data sharing, to name a few types of these services:

Social Networks, Chat rooms, Forums, Communication Apps, Content Sharing Services, Electronic Markets- E-Commerce, etc. Now it is time to explain some important terms and expressions that are of vital importance to this paper.

First we need to explain the structure, or levels of the Web and Cyberspace. There are three levels of the Web that we know: 1) First one is the Common, Plain Web (or Indexed Web), that is a part of the Web that is visible to public and that could be searched through common search engines like Google, Yahoo, Bing, etc. 2) The second level is so called the Deep Web, this one consists of pages, content and services that for some reason haven't been indexed by common search engines, and that are not available through common search to a wider public. The only way to access them is to know their exact URL (electronic address) 3) Third one is a focal point of this paper, it is so called Dark Web (or Dark Net). This one consists of pages, content and services that is intentionally not indexed by traditional search engines like Google, Yahoo, Bing and even DuckDuckGo (or better to say hidden from them).

These services, pages and content aren't only hidden, they are also protected in the way that you need a special software to search them or use these services. There are many technologies that provide access to these services and content, and 3 best known are Tor Project, Free Net and Invisible Internet Project I2P. There are also other technologies that have been built on top of these listed above, like OS – Operative Systems for PC's that are used for anonymous communication and data sharing (to name a few: TailsOS, IprediaOS, Freept, JonDo, Lightweight Portable Security LPS, etc.). In fact all of these technologies mentioned here have a same mission, to protect your communication and other activities on the network from prying eyes (state or some other entities, or even individuals).

Now that we have defined and explained key terms and expressions, it is time to give a short analysis of the contemporary context that describes current trends on Internet communication and the problems of privacy and protection of data.

### 3. The use of Internet in Communication and Data Sharing and the problem of privacy: Short Analysis

Today the Internet and related technologies and services represent a mostly used media for communication and data sharing. People use the Internet for business, as well as for their personal communication with family and friends, they use it to share various forms of data (from content to documents). Let's look at numbers (DMR, 2018):

- In 2017 the Internet had 3.77 billion users, mostly used services were Social Networks with 2.80 billion users, on the second place were so called e-commerce services with 1.61 billion users;
- The second very important trend that emerged a few years back is a constant rise of mobile users worldwide, in 2017 that number was about 4.92 billion, 2.56 billion of them used Social Media.

These trends represent just a small part of a mosaic called Internet usage trends and facts. There are also other facts and figures that we need to look at to see where Internet as a communication channel and media is today and where it will be tomorrow. That is very important to know in order to assess future developments and problems that could emerge in the future.

There are a few more figures that we need to look at to see that big picture about importance and the usage of Internet and related services in modern human communication. These figures relate to something called the usage of communication apps in modern human communication. Firstly let's look at the number of users of communication apps like Skype, Viber, Messenger and other services alike. Let's look at those numbers, too.

Firstly we need to look at the usage of so called communication applications. These applications are widely used for various forms of communication through Internet (from video calls to text messaging). Few best known apps of this type are Facebook Messenger, WhatsApp, Viber and Skype. When we look just at these 4 best known apps we will see that they combined together have about 4.4 billion users (or to be precise this was a number of user accounts on these apps/platforms in 2017). If we look at structure of the users we will see that there are many business users as well as high government officials from many countries around a globe and ordinary people. Just a thought about the data that could be gathered, especially the sensitive data about companies, states, or about individuals, that could be used to harm all of them, makes any security professional very nervous.

We live in times when it is very hard to protect privacy, and sensitive data that could be harmful to your business, family and other values that need to be protected. Today it isn't hard from a technical point of view to intercept data that is broadcasted to Internet and various services that depend on its infrastructure. The fact that makes this problem even more serious from a security point of view is a large number of various entities that use industrial and economic espionage to benefit from it. The best evidence that supports this claim is a fact that many countries worldwide have a very sophisticated surveillance and communication monitoring systems that can't really justify the cost of establishing such organizations and the funds needed for building and running this infrastructure. Security, or protection of National Security, the state and its values is one of the reasons to justify it, but the main reason for running this kind of operations is economic. We have this infrastructure developed in many countries, from dictatorships to democratic/capitalist ones. That difference between the types of societies and governments and economic systems has a major influence on the primary mission of this kind of infrastructure and systems.

Countries with the most developed Internet and telecommunication monitoring and control systems are the United States of America (USA), Great Britain, the Peoples Republic of China, Russian Federation, India, North Korea, Australia, Canada, New Zealand, South Korea and Germany. Most of these countries use most of their communication monitoring capabilities abroad, but some like North Korea, the Peoples Republic of China, Russia and the USA use much of their resources in their home territory, too. In some of these countries these kind of activities were illegal on their own territory against its citizens, but it all changed after terrorist attacks on 9/11 2001.

That was a point in time when that line between democracies and other social systems became blurry as far as human rights, and privacy of communication are concerned.

At about the same time many organizations/ private entities that deal with Internet monitoring and control emerged, too. So now you don't need to have any important role in some organization in order to become a potential victim of some malicious organization or individual who wishes to make a profit of your leaked sensitive data.

Now it had become a problem not just for governments as it was mostly until 2001, but it also became a very big problem for individuals, corporations, news agencies and others as well. The privacy of communication became a very big problem. Industrial and economic espionage is a big problem for centuries, but it came in to light when US Intelligence Community Contractor Edward Snowden leaked many classified information about NSA surveillance program back in 2013. After that many people became aware of the consequences that could arise from interception of their private or business communications. Many other problems, like stolen identities, many hoaxes and other threats helped people become more aware of the problem of privacy and unprotected communications. That is one of the main reasons behind the emergence and success of so called Dark Net and technologies behind it. More on that in next chapter.

#### **4. Dark Net Anonymous Communication and Data Sharing Technologies: Short Analysis**

Dark Net and Deep Web are two expressions that could be heard of a lot this days. There are many articles in computer magazines, newspapers and many stories in mainstream media that are trying to explain and explore them. Many think that these two expressions are synonyms, but it is just a misperception. Early in the chapter about key terms and their definition, these terms were described and explained in details. Main difference that distinguishes them is a fact that Deep Web could be seen as a byproduct of many unfinished or private projects that their authors tried to hide from the public by not indexing them by major search engines or other pages and content that is not indexed for some other reason. Deep Web is a much broader term that includes Dark Net content and data, too. On the other hand Dark Net is colloquial term/name for different technologies whose mission is to anonymize and protect user's traffic and communication and hide it from prying eyes. That is the reason why pages, content and data in Dark Net could be approached only with special software and special URL like structure. Here are some of the most famous technologies that make Dark Net along with their characteristics and possible misuse:

1. **TOR Project** - Tor Network is a very ambitious project that started in the mid-1990s in US Naval Research Laboratory. Main reason for this project was a need for clandestine protected communication network for US Intelligence Community and Navy. At later stage, sometime in 2002 it became a publically available community project that had some innovations implemented. The first name given to this project was "The Onion Router", at a later stage it became known as the "TOR". That innovative network is unique because it uses standard public Internet infrastructure, but with a parallel volunteer server network which works as a network for routing the traffic in order to make it hard or even impossible to trace. One more characteristic of this network is that it is not easy accessible and that it uses basic encryption of all the data transfers. In order to use this network you need special browser called the TOR Browser. This network allows its users to search the Web free from tracking, it provides a very specific way of clandestine communication and a special type of parallel Web with unique services and new web site like philosophy. Here you can find every type of service that is available on plain Web (Social Networks, Chatrooms, Forums, etc.) (TOR Project, 2017).

The way that TOR network provides anonymity to its users is very interesting, it relies upon volunteer server network that breaks up a normal direct connection to the requested website or service. This form of network consists of all of the computers that are connected to this network, so that the requested service/website gets only some of the data about the last computer that sent a request. In order to protect all of the computers in that chain, TOR covers/replaces their real IP addresses with fake ones, given by the TOR Browser. This is a fundamental difference compared



to normal, everyday connection to Internet, where your computer sends a request directly to the requested service/website. This standard way makes your communication very easy to track and eavesdrop (CIGI, 2015). This is more detailed description of the way TOR network works. Tor network has a largest pool of users, and it is a very well-known platform that enables terrorist groups and organizations, as well as organized crime with most of their needs logistical needs (from communication to intelligence gathering and trade).

There is some evidence that suggests that this technology is not bulletproof as it was considered before to be, especially for Intelligence services of major global players like USA. There are rumors on Dark Net that NSA found a way to break protection of this network by using malicious software. That is one of the reasons why there are so many new technologies being developed almost every day. There are many alternatives to TOR out there, but in next few lines of this paper only two best known and used are presented.

2. **Freenet**—Freenet is a special software that forms an alternative Dark Net network. This software provides its users with anonymous and protected Internet browsing, protected chat services, forums, and other anonymous and protected ways of communication. This software is similar in functionality to TOR Network because it also uses a decentralized structure, servers for rerouting traffic and it uses encryption for the protection of data in transport. It is better in some way than the previous one because it includes one deeper level that could be considered the true Dark Net. This deeper level connects users only with their friends, so that their traffic becomes completely anonymous and protected the best way possible. This kind of communication and file sharing is so called peer to peer communication, and it is very hard to break or eavesdrop (Freenet Project, 2018). This kind of communication is truly anonymous and it can be used for planning and logistics for some operation on a greater scale. It has a very good potential to be used for clandestine Intelligence Operations, as well as for terrorist organizations and organized crime for similar purposes.
3. **Invisible Internet Project (I2P)** – I2P is considered to be the best alternative for TOR project. It has a decentralized structure, all of the communication is encrypted, and it has all the services that the two previous networks have. This project is very good for integration with various operating systems – Linux, Windows, etc. I2P is considered to be one of the best technologies of the Dark Net because of its very easy integration in new projects, like new operating systems for personal computers and mobile phones. (I2P, 2018).

These technologies have a very large audience, about 10 000 000 users combined, because of the anonymity of their users the exact number is hard to come by. With a development of new technologies that would integrate this network technologies the number of potential users will rise exponentially. Best thing about this networks is that they bring a very broad scope of services that could be used for everything from data sharing to video calls and messaging, with an additional layer of protection. In the next chapter future developments and problems will be analyzed.

## 5. Future Developments and problems from security perspective

Dark Net technologies represent a relatively new type of communication and data sharing media, that will continue to develop in the future. There are some new projects that will take this developments even further. One direction where this development goes is integration of before mentioned technologies in computer and mobile phone operating systems. There are many active projects that are going this path. Some of the most famous projects of this kind are: Tails OS, Ipredia OS, Freepo, JonDo and Lightweight Portable Security (LPS). All of these systems are Linux based operating systems for personal computers that integrate TOR or other dark net type network services into their Internet browsing and communication applications (software). This integration provides an extra layer of security and anonymity, so it becomes even harder to intercept and decrypt communications this way. There are also other developments in this field that will provide cell phone/smart phone users with a same level of anonymity that is already present for the users of personal computers. It is time to take a closer look at some of the most famous new technologies mentioned here and their characteristics. We will take a look at Tails OS, Lightweight Portable Security (LPS) and Ipredia OS, because they are most widely used operating systems for this purpose. These are all new technologies that are still in development phase, but they already have most of the functionality.

1. Tails OS –Tails is a live operating system that can be started on almost any computer system, without installation. Tails could be booted from a USB stick or a DVD. It is a fully functional operating system that leaves no trace on a host computer used as a host system for starting/booting it, except if user configures it to save data on host hard drive. This OS forces all Internet traffic through TOR network, so it has another layer of anonymity and protection. It has state of the art cryptographic tools that enables encryption of emails, instant messaging and all of the files (Tails OS, 2017). This makes Tails a very potent platform for clandestine communication and protected file sharing.
2. IprediaOS- Ipredia OS is a Linux based operating system that provides a n anonymous environment for its users. All of the traffic is automatically encrypted and anonymized. The anonymity is achieved by forcing traffic through I2P network (mentioned in a Chapter above). This OS has many applications for anonymous communication and file sharing, to name a few: Anonymous Bit torrent client, Anonymous e-mail client, Anonymous IRC client and Anonymous Browser (Ipredia OS, 2018). This OS is one of the best free tools for clandestine communication, anonymous browsing and file sharing.
3. Lightweight Portable Security (LPS) – LPS is a Linux based operating system Live CD (or Live USB) developed and publically distributed by United States Department of Defense's Software Protection Initiative. It is designed to serve as a secure end node. This OS is different from the two mentioned above, because it uses protected and safe DOD controlled network to browse Internet and for communication. It enables its users with encryption of the data that depends on the version of the OS, there are a few versions. Version for the government has the highest level of encryption implemented, and that for the public has a very strong 256 bit encryption (TENS,2018). This project has changed its name to TENS (Trusted End Node Security), as of 1.7 version.

So all of these developments are very useful for many groups of people: investigative journalists, scientists, businessman, intelligence officers, law enforcement officers, private investigators, military personnel and even ordinary people that want to feel safe and love their privacy. This is also a very important technology for various industries and organizations, from corporations to government agencies. This benefits could be seen as a better privacy and protection of communication, that could lower the risk of economic or industrial espionage for example and risks of other forms of espionage, too.

But there is also a potential dark side of it. This dark side represents a potential for malicious use of this technologies by various forms of malicious organizations, groups and many types of individuals with malicious intents. The anonymity that this technologies provide, enables all kinds of organizations with the ability to do much of the logistics for their illegal operations, hidden by the protective umbrella that they provide to their users. Because of the rerouting techniques that all of the technologies mentioned here have it is very hard even to trace communication, and an extra layer of protection by encryption makes it almost impossible to decrypt messages and communication.

The other very interesting thing about this technologies is that it hides IP addresses and other important data from the beginning of the connection. This all makes things even harder for Intelligence Communities worldwide to track and monitor communications.

It is not so hard to predict that this technology is and will become even more used by terrorist and criminal organizations. When a number of users rises to a much greater level it would be even harder to identify, track and monitor such communications. So there is an essential need for a constant development of new technologies and techniques by Intelligence and Law Enforcement Agencies around a globe.

## 6. Conclusion

This paper is just scratching a surface of the dark net and its use as a communication and data sharing media. It is needless to say that dark net technologies represent a future of communication, and one of the main reasons for that is the level of privacy, that is higher than in other forms of communications. It is clear that these technologies if we look at estimated number of users of the Internet that is around 3.7 billion, are at an early stage, and that they will grow in popularity. When they become popular it

will be even greater issue for Intelligence Community, because larger, more spread network where any computer that is on that network represents a rerouting center, is much harder to monitor and trace. The greater number of users will be an obstacle because of the encryption of the data on the network, so the Intelligence Community will need far better and larger computer and telecommunications infrastructure to penetrate those networks. So the solution of this problem could be found in implementing more traditional approaches that could be found in traditional Human Source Intelligence and Open Source Intelligence (KršteniĆ, 2016). It would be of a greatest importance to develop modern real time analytics, that would be very helpful in monitoring and analyzing traffic in order to identify clandestine one (Dark Net type of traffic). It would be on one hand very hard to identify and analyze traffic that could potentially come from malicious sources (like terrorist and criminal organizations), but on the other hand Global Intelligence Community will have a new tool for planning and organizing black operations and other clandestine activities. It is very hard to predict where further development of this technology will lead us in the future, but it will certainly be a very dangerous weapon in the wrong hands. That is the main reason why not only Intelligence Organizations, but also an academic and scientific networks should follow the development of this technology in the future.

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## HUMAN RESOURCE MANAGEMENT IN SERBIAN SPORT

**Abstract:** Human resources, as the most important resource in business operations in all areas, represent a dominant factor of success in sports organizations. The complexity of the problems that are present in Serbian sports organizations derives from the fact of finding the right personnel for the management function, which should rely on multi-disciplinary knowledge, with a focus on psychology, communication, work organization, management is challenging. The aim of this work is precisely the emphasis on the importance of hiring professional managers in sport and focus on the problems that arise during their engagement. This work, also, could serve as a modest contribution to the theoretical knowledge for effective human resources management in sports organizations.

**Keywords:** management, human resources, sport, sports organizations.

### 1. Introduction

Nowadays, when a sport is increasingly commercialized, and when there is a tendency for achieving top results and competitiveness, focusing attention on human resources as the highest values should be a key orientation of the managers. This thesis finds its justification in the fact that, basically, in the world of sport, there are various activities, which in combination with other spheres of society, constitute an entirely new system that we call the sports industry, where sport is only one of the means that it (sports industry and subsystems that comprise it) uses for the realization of its own goals and where, dominantly, as a primary goal, the maximization of profits is set. Contrary to that, while keeping in mind that without sport there is no sports business, and that, basically, in the sports industry, sport is still dominant, there is a need for a specific management of human resources, which comprehensively examines their role and importance, from the aspect of business, i.e. making a profit, and from the aspect of sport, i.e. achieving top results as well.

Sports organizations are not much different from other business systems when it comes to human capital. And in them, all employees represent human resources, ranging from administrative workers to athletes, whether they are amateurs or professionals. Also, human capital represents coaches as well, so as managers at all levels. Precisely this stratification of the employees, their duties and responsibilities, or participation in the creation of new values, represents a complex issue which needs special attention. Only a coherent approach to the evaluation of results contributes to the overall effectiveness and efficiency, which in the long term creates the conditions for sustainability and competitiveness of sports organizations. Therefore, it is necessary to provide quality human personnel at all positions and tasks, with a baseline consisting of activities of recruitment and selection of people. The recruitment and selection of people, both athletes and managers themselves, represent a fundamental precondition for achieving results that will lead to the ultimate goal. In that respect, there is a significant role of managers who are expected to provide, with their professionalism and competence, the best, the brightest, the most efficient and the most effective practice applied in a given situation (Smith and Stewart, 1999, p. 2). Only those managers who are embracing the future, new trends and circumstances, who are not casual and do not wait for opportunities to come to them, but they themselves create them, have a chance to achieve high goals and results.

This question is particularly delicate in sport because the influence of many factors can be recognized, such as professional, technical and technological, as well as psychological and social, including economic and financial. Establishing good business practice, based on the procedures of recruitment and selection, applied methods, or models of finding candidates, clearly directs and defines all other

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aspects of managing and leading people. An important task in that regard represents their good organization, i.e. professional management. Therefore, it is important to establish a good business practice that is based on the organizational culture and on the establishment of formal channels of communication, development of quality human relations, without which it is not possible to achieve individual or group organizational goals (Ivanović, 2015). With high professionalism, ethical attitude towards all employees, specific responsibility and diligence, the foundation for the successful development of all human resources are created.

For successful human resources management in sports organizations, however, the essence represents a question of adequate education of sports managers, because without quality education there is no qualified and creative human resources (Malacko, 2008), especially managers in sport. Therefore, as specifically responsible tasks for sports organizations in Serbia, the activities of planning, recruitment and selection of managers are imposed. However, it is known that at the very beginning, the problems of identifying and attracting competent people occur. The reasons for that lie in, among other things, insufficient development and representation of the educational programs, so that the aforementioned processes of planning, recruitment and selection of candidates for the corresponding managerial positions in sport cannot be carried out in a satisfactory manner.

Also, it is important to point out the following fact that the competences of managers should be combined, those skills acquired through education, therefore, theoretical, and those skills, knowledge and experience acquired through practice as well. By ignoring any of these aspects, in long term, can bring much more harm than good to the sports organization.

## **2. The justification of the application of management in sports industry**

Even though the management concept is much wider than the concept of business management, the area of management is still in the period of entry into the sports industry, and even afterwards (the sixties of the twentieth century) it was an undesirable area in nonprofit organizations. The reason for this is the fact that most people identified the concept of management with business management, considering it superfluous and even harmful for the area of non-profit sector, where sport belongs. Even though the development of management, which is now present in sports organizations, could not have been stopped, it has still lagged behind the development of management in other business segments. To encourage its application in Serbian sports industry, according to the author of this article, it is necessary to come to a complete differentiation of sport managers in relation to managers specialized in other business spheres. In that context, it is necessary to intensify the development of academic programs which are taught at higher education institutions.

Bearing in mind that the management in sport is a scientific discipline, which, taking into consideration the mission and the general objectives of sport, deals with the theory and practice of the activities of planning, organizing, managing and controlling various sport-related systems because of more efficient and more effective provision and exchange of goods that sport can produce, it is essential that managers who tend to work in the sports industry have multidimensional knowledge, specific skills and abilities, as well as highly moral individual characteristics, which implies the existence of high-quality higher education programs. Unfortunately, these programs are still not presented sufficiently in Serbia, so the sports organizations are, in a way, forced to place personnel who are not adequately educated at leadership positions (or authorities). Such organizations have a reduced chance to fully meet their own targets and especially targets in the wider social context. Having in mind that this is a sports industry, and knowing its characteristics and the basic principles, it is clear that the second group of targets is very important and that by not meeting them for a longer period of time, to a certain extent it brings into question the justification of the existence of a concrete sports organization.

## **3. Specifics of management in sport**

As in other areas of management, management in Serbian sport relies on immediate sport practice. Consequently, the management of human resources is greatly influenced by the practice or certain dogmas and established rules that are not based on realistic and scientifically proven facts. It is precisely this practice and the intensity of the connection with it represents a sort of a problem,



because it is not sufficiently based on theoretical or scientific knowledge. In fact, usually only former as well as successful athletes get the opportunity to manage various sports organizations, such as clubs, unions, associations, and sports events and facilities as well. It is obvious that these are very large systems that are difficult to manage in an optimal way, if someone does not have enough specific knowledge that a professional manager possesses. Also, the work of former athletes who had become managers is seldom analysed by the public or an expert body of the organizations they manage. The public is often blinded by and under the "halo effect" of sporting successes of a former athlete and a current manager, and they examine and evaluate his work in an irrational or not objective manner, not realizing that he is now in a completely new role. With the last statement, the problem is not fully revealed because the public, especially in sport and especially in Serbia, practically never changes sides, and it is impossible to force them to change for example, club they support, or (if you are inveterate) to support the team if the selector is a renowned pioneer of the opposing team. In sport, there is often no direct connection between quality, price, needs, trends, etc., on the one hand and the number of consumers on the other. Most often it is a subjective feeling that is a decisive criterion for action. At this point, the problem represents the expertise bodies which mostly consists of former athletes or people who have practical experience working in sports organizations. It is clear that it is very difficult not to choose for example, a delegate (supervisor, assessor, judge) at the game not from among former judges, but it is also obvious that rarely any colleague- even if he is a former colleague- would assess his colleague so badly, although he deserves it, so that he would be left without an engagement for a period of time.

On the other hand, the specificity of management and its application in sport impose the need for a unified consideration and acknowledgement of competences, without which the work of managers who are not educated for this area is considerably hindered. Namely, sport is, especially in Serbia, in crisis (based on a number of criteria), because certain proven management models in practice do not have a possibility of application, so there is no need to discuss about their effectiveness. Also, a non-specialist manager has certain problems among other managers, mostly men, who are often paid less, and less well-known and influential than his, conditionally speaking, subordinate (the coach of an athlete) who is, very often, a minor, but they have a greater responsibility to the general public, the state and society, than towards the owners, while consumers experience and consume sport in different ways and for different reasons. The work of the specialist managers in professional sport is hindered because sport belongs to the non-profit sector, so its sporting and other non-financial objectives and motives (educational, health, recreational, social, hedonistic, aesthetic, cultural, related to ethics, morality, prevention of various deviant behavior, etc.) stand out. However, professional clubs and sports organizations surely have also profit objectives and preferences which include certain strict principles, which are often in total opposition with non-profit objectives and motives. Multidisciplinary and diversity of demands for the managers in sport can also be seen in the necessity of reconciliation of certain factors which are, or may be negative. First of all, it refers to the violence at sports events, extreme fans, corruption, as well as doping, betting, the influence of sponsors and other interest groups, and all those factors which lead to alienation from the basic idea of sport and towards its collapse.

With this in mind, it is obvious that sport is a specific area that requires a special approach and specific management, because only in this way it would be possible to harmonize and achieve goals which, on one hand, are imposed by the owners of various sports organizations, and sport itself and its philosophy, on the other. A competent management that would respond to all the demands of modern sport can be created only by introducing specific education programs for the managers in the sports industry. In the world, this fact is long known so that the programs of sports management began to be taught at higher education institutions in the sixties. In 1966, Ohio University was one of the first where sports management began to be studied (Masteralexis et al., 2008, p. 19). The fact that there was only twenty study programs of sports management in the eighties in North America, but only two decades later ten times more (Lussier and Kimball, 2009, p. 4), shows that this industry is on the rise and that it is increasingly developing, which justifies the need for professional managers in sport, or expansion of education programs for them. Currently, worldwide, there are more than 240 different study programs (Pedersen et al., 2011, p. 4). In the eighties, in the Republic of Serbia, with the introduction of the study department the Organization of Physical Education at the postgraduate studies in Novi Sad, began university teaching of sports management. Later in, in the nineties, at the same university, a program for professional training of sports managers (1993) was implemented, and specialist postgraduate studies at the sports management (UISS, 2009, p. 5) were introduced (1999).

The beginning of the new millennium is characterized by the introduction of the programs in the field of sports management at the private higher education institutions as well.

#### **4. Problems and specificities of human resource management in contemporary sport**

Globalization, commercialization, modern technologies and other trends that occur, as well as other spheres of modern society, affect both sport and sports industry, perhaps more intensely than happenings in other spheres. The specificity of sport industry in relation to other segments of business is also reflected in specificity of human resources, its management, relations that now exist between different hierarchical, i.e., sectorial levels, as well as in reaching new values, that is, top results. These factors affect the facts that sports organizations, seeking to eliminate competitors, could take advantage of any moment of their "negligence" and disable their optimal business, which is important in conditions when there is a "real war" for the buyer, and when any business that is not maximally effective and efficient is doomed to failure. Therefore, each business segment should be covered by the processes and functions of human resource management so that nothing would be left to chance. High level of business optimization is not possible without professional and contemporary educated management for a specific area. Otherwise, it could reach a certain paradox that can be called - the paradox of the business of the sport.

The delicacy and complexity of human resources management in sport can be analyzed in a situation if it is assumed that the industry of sport only exists in the case when two entities collide in sport, and when it bears uncertainty, where there is an obvious role and necessity of the existence of the competition, the opponent, other - opposite party. The opposite party is not necessarily other organization, group of people or an individual. It can also be records, time, innovation and other different objectives or all those factors, without which there is no sport, without which there is neither sports business nor sports industry as well! It is this uncertainty that makes a collision - physical, spiritual, symbolic - two teams or two runners to which people are willing to pay. This may be a clash of an individual with himself when trying to achieve his goal, whether it's about beating the world record, or even, quite simply, the desire to lose excess pounds. It is precisely this difference, and the collision of two worlds, the old one without a record or a achieved goal, and the new one, with potentially achieved record or goal that represents a spark that ignites the fire of the sports industry.

In order to efficiently manage human resources, it is necessary to apply specific methods and strategies, and for that, it is necessary that there is some theoretical knowledge that can be obtained by formal university education. In order to achieve high goals, sports organizations must also take into consideration the goals of each individual as well. The satisfaction with job and organization represent a key element for the realization of its own interests and objectives, where there are a number of theories, among which dominates the Japanese model as the most advanced and the most efficient, emphasizing the special approach to a man, to an individual, which is based on the principles of complementarity of individual and organizational goals (Price, 1977).

#### **5. Competences and responsibilities of managers in sport**

Human resources management, among other things, involves bridging the gap between the competencies of a particular workplace and competences that a person has in that workplace (competencies & competences). Competences represent the characteristics of the behavior (posture, being, conduct) that are causally connected with efficiency and excellent performance of the work, i.e., the characteristics of personality, knowledge and skills, attitudes, motives and traits which include the profile of an employee and which enable him to effectively fulfill his role, whereas the competencies are practically tasks and outcomes which job imply (Wolsey, Minten&Abrams, 2011, p. 72). The ideal situation for a sports organization is that each engaged individual possesses precisely those competences that are needed for his position. It is evident that it is difficult to specify those competences, given the complexity of the sports industry and a multitude of different tasks that are carried out there. It is important that the engaged individual understands sport, its essence and philosophy, but also its socio-cultural and historical dimension. The implied competences of managers, for most sports organizations, relate to the management (analysis, forecasting, planning,

organization, management, control) or to certain functions (e.g., lead) or certain segments (e.g. the analysis of the competitive environment of the organization), also sport, i.e., sports science, as well as similar areas such as recreation, leisure, etc. Also, it is important to possess a certain level of competences in finance, law, marketing, sponsorship, management and administration on one hand, and education and ethics in the sport, public relations and media, as well as communication and skillfulness in public speaking on the other side. Bearing in mind that the professionalism is a necessity of the world today, and that it is something that is implied, all these competences, with certain personal qualifications and practical preparation for work, is the basis for performing highly complex role - a professional manager in sport. It is certain that in both Serbia and its sport, it should be taken into consideration all above mentioned reasons and as soon as possible to define the area of higher education, both in law and in educational sense.

In order to better understand the competences that are mentioned in this paper, it is necessary to explain in detail the concept of professionalism. Namely, a professional is not a person who is only engaged in a specific area, as opposed to an amateur or a volunteer. Professionalism should be observed more broadly, as a concept, which contains two basic components (Smith & Stewart, 1999, p. 10). The first requires a level of personal characteristics or ethical behavior, on whose basis the image presented to the public, the sensitivity in relation to the needs of consumers, as well as a passionate commitment to the work is constructed. The second component implies the continuous possession of competences, which are presented as a combination of intelligence and ability, formal and informal education, technical skills and sophisticated character developed by cultivation and experience (the man who was everywhere and went through it all).

## 6. Conclusion

The management of sports organizations is a complex issue that requires much more attention than it is shown in the previous period. A coherent approach and multifaceted understanding of the functions of the managers in sport impose as the proper way of the planning, recruitment and selection when hiring people. Following such idea and the need for employing the managers who have the necessary competences in sport industry, both in terms of knowledge and in terms of personal experience, that is, skills and moral qualities, the authors state that the formal education of personnel in sports management is still insufficiently developed, and that the local higher education institutions do not cover enough of this multi-dimensional area, which in the future should be improved. Otherwise, employing insufficiently competent personnel at the head of sports organizations, means further delay a solution, delay and lagging of Serbian sports organizations more and more behind developed countries. Also, until recently, the practice in our country of employing an educated manager without a specific practical experience in the field of sport is also not a good idea and may divert sport from its core mission.

A contemporary sports manager should possess knowledge in areas, sport and management, because being an educated manager is a necessary condition that is more and more applied in the world today and it should be applied in our country as well.

It is therefore education, which combines theory and practice in areas, sport and management as well, that is of crucial importance for the development of the sports industry. Only such an approach can provide educated managerial personnel needed in the sports industry, with which an additional and required quality would be achieved. It is not only for prosperity, but also for survival.

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## MANAGEMENT OF A FLIGHT ORGANIZATION OF A PASSENGER PLANE DEPENDING ON THE LEVEL OF THE FLIGHT

*“Innovation, inventions and great strategies are born in a crisis!”*

Einstein, 1954

**Abstract:** Since the eighties of the 20th century the world has been in a constant crisis with energy products which are primarily connected to the constant growth of the oil price at the world market. That fact has forced many manufacturers of planes to start developing completely new concepts of the development of commercial planes which will be, based on fuel consumption, more rational, with the complete maintenance of the highest level of service to passengers.

In the case of the plane DHC Dash 8 Q 400, the calculations for changing the trip fuel with the change of the flight level have been done. The engineering preparation of a flight for the calculation of the trip fuel with the change of the flight level was performed, from FL160 to FL240. The airport of the take-off is at the height of PA=3000 feet and the airport of the destination is on the height of PA=2000 ft. According to the analysis of the nine various levels of a flight, it can be indisputably concluded that, regardless the greater height of the flight and the greater passed horizontal distance in ascending and descending the consumption of fuel is significantly less than while flying of much lower height with much smaller horizontal distance in ascending and descending. All the indicators obtained indisputably confirm the fact the flight on greater height enables less consumption of fuel and less necessary time of duration of a flight.

**Key words:** Flight level, ascending, descending, necessary trip fuel, time of duration of a flight, management, organization.

### 1. Introduction

Since the eighties of the last century the world has been in a constant crisis with energy products which are primarily connected to the constant growth of the prices of oil at the world market. That fact has forced many manufacturers of planes to start developing completely new concepts of the development of commercial planes which will be based on more rational consumption, more with the complete maintenance of the highest level of service to passengers. The current situation with the price of fuel at the world market is such that even the most powerful companies in air industry such as “General Electric” decide to return to the programs of researching and the development of turbo-propeller planes. The president of the “General Electric” for the infrastructure development, John Rice, confirmed that they would work on the development of a new generation of turbo-prop engines which will respond to the demands of manufacturers of new generation of these aircrafts which, besides being rational in exploitation, have to satisfy the requests such as: increased the radius of work, increased operative height of a flight, but also reducing noise, before all in a passenger department. The strategic partner in the

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development of the project of the new engine has been found in Czech Republic, to be more precise in the manufacturer of engines "Walter Engines". It is not hard to make a conclusion what will be the result of this cooperation. (Isakovic, 2006)

Because of these reasons in this paper the calculations of fuel consumption will be done for the aircraft DHC Dash 8 Q 400 which is a typical representative of turbo-propeller aircrafts in the regional traffic of new generation. The calculation will be done within a wider supposed envelope of a flight, analyzing all the predicted parameters of a flight.

## 2. Analysis of the influence of flight level to the necessary trip fuel and time

The main indicator of energetic fuel consumption is resistance, which has to be confronted by thrust in order that a plane could realize a progressive flight. The resistance is proportional to the buoyancy necessary for the maintenance of the height which is equal to the aircraft weight. As the induced resistance is increased with increasing the weight; reducing the mass, improving the efficiency of the engine and reducing the aerodynamic resistance, the energetic efficiency of the plane could be significantly increased, which would be equally to 1% of the reduced weight, i.e. about 0,75% of the fuel consumption reducing (Swatton, 2008). The theory unambiguously presents that the elevation of the flight influences the general efficiency of the engine. Genuinely, the efficiency of a jet engine is increased by increasing the height of a flight all until the tropopause where the temperature of the atmosphere is the lowest because of low temperatures. In that sense, comparing to the results of empiric investigations the efficiency of a jet engine is greater with the increase of the speed all up to about 0,85 M. because of which the losses for the reasons of aerodynamic structure of an aircraft increase faster. This value of the Mach number is extremely significant because with the beginning of supersonic speeds which in certain parts of an aircraft can appear at the speed of about 0,85 M. the striking waves of air create greater resistance. Because of that reason, on the supersonic flight, it is hard to achieve the specific proportion buoyancy/resistance greater than 5, based on our research, so, because of that, the fuel consumption is proportionally increased.

If you do the direct comparison of turbo jet with jet engine, it can be noticed that the greatest efficiency is given by the prop fan engine. The fact that turbo engines with propellers have optimum speed of about 700 km/h by which this speed is smaller than the speed of jet planes used by most of nowadays companies. It is well known that the reducing the speed reduces resistance. With the frequent higher price of jet fuel and the accent to the engine/ the structure of efficiency and for reducing gas emissions into atmosphere, the interest for the propfan concept for passenger regional aircrafts has been renewed.

The paper further illustrates the impact of the flight level on the necessary road fuel and the time of the turbo prop plane De Havilland Canada DHC Dash 8 Q 400.

### 2.1 Calculation of trip fuel and time according to easaeu-ops

The fuel necessary for the flight is divided into: trip fuel which is consumed from the moment of starting the engine at the airport of the take off to the moment of shutting down the engine at the airport of destination and the spare fuel which is used for the flight to an alternative airport, for holding and because of navigation mistakes. The total block fuel necessary for the realization of a flight represents the functional dependence of flight distance, i.e. with the increase of the flight distance the quantity of necessary trip fuel increases linearly. In this project the analysis of the influence of flight level to the necessary trip fuel and time of FL160 to FL240 with the step 20. Also, the calculation of the trip fuel is examined for the part of a flight which is en route, the take off is derived with RWY with PA=3000 ft, and the landing is done to RWY with PA=2000 ft. Meteorological condition during the whole flight are: ISA+20, front wind 20 kt, without turbulence, without the conditions for freezing and without the significance in the variation of air humidity, all engines are operative.

### Trip Fuel Calculation

This mass includes the fuel necessary for complete take off, ascending, cruising and descending, expected trip procedure, approach and landing on the desired airport. Before every flight the engineering preparation of the flight is carried out. According to the data about the flight preparation presented in the Aviation operative manual for the aircraft DASH 8 Q 400 the following values are obtained: (Aircraft, 2006)

- Trip fuel = 2.606,00 kg; Trip fuel = 2:46 (hr:min) (1)

### Contingency Fuel

This fuel is intended for unpredictable cases during the flight such as: avoiding storm weather and unpredictable long holding in the area for landing. The contingency fuel is usually determined perceptually in proportion to the trip fuel. It mustn't be forgotten for that mass of fuel to be calculated to the landing mass of an aircraft. Analogously it is obtained the value: (Series, 2009)

Contingency Fuel = Trip Fuel x 5%

- Contingency Fuel = 2.606,00 kg x 5%; Contingency Fuel = **130,30 kg**

### Alternate Diversion Fuel

This mass of fuel is provided for a potential change of the destination airport, sequential ascending, prolonged procedure of approaching for landing, navigation error etc. In the given engineering problem the alternative airport has not been considered.

### Final Reserve Fuel

This is the minimum quantity-mass of fuel which stays in tanks during landing. In the basis, the extreme fuel reserve for unpredictable situation should approximately be for piston-propeller planes the flight of 45 minutes and for the jet and turbo-propeller ones 30 minutes for the given height and approaching speed. Analogously, the values are obtained: (Series, 2009)

Final Reserve Fuel = Trip Fuel / Trip Time x 0:30

- Final Reserve Fuel = (2.606,00 kg / 2:46 (hr:min)) x 0:30; Final Reserve Fuel = **471,00 kg** (2)

### Additional Fuel

This quantity of fuel is planned only if the amount of the quantities of fuel defined in the previous items is less than the demands defined in the EASA EU-OPS 1.

Well, the total trip fuel and the time necessary for a given flight is:

$$\text{Total Necessary Fuel} = \text{Trip Fuel} + \text{Contingency Fuel} + \text{Final Reserve Fuel} \quad (3)$$

- Total Fuel = 2.606,00 kg + 130,30 kg + 471,00 kg; Total necessary fuel for takeoff = **3.207,3 kg**; maximum duration of the flight = **3:16 (hr:min)**

## 2.2 Calculation of the aircraft mass during the takeoff

According to the values obtained in the point 1.1 for the total necessary fuel for the flight and according to the input values for a dry operative mass of the plane DOM (dry operative mass) and the paid cargo (Traffic Load TL), it is calculated the total plane mass during the takeoff, it is obtained the following: (Series, 2009)

$$\text{Mass without fuel (ZFM)} = \text{DOM} + \text{TL} \quad (4)$$

$$\text{Mass without fuel (ZFM)} = 17.268,00 \text{ kg} + 5.247,00 \text{ kg} = \mathbf{22.515,00 \text{ kg}}$$

It is now possible to calculate the total mass of a plane during the take off:

$$\text{Mass during the take off (TOM)} = \text{ZFM} + \text{Fuel} \quad (5)$$

$$\text{Mass during the takeoff (TOM)} = 22.515,00 \text{ kg} + 3.207,3 \text{ kg} = \mathbf{25.722,30 \text{ kg}}$$

## 2.3 Analysis of the change of the crossed horizontal distance necessary for ascending, cruising, descending considering the change of the level of the flight

According to the presented values in the calculation of the plane mass during the take-off TOM from the point 1.2 the obtained values are used further in the calculation in order to obtain the demanded value in the horizontal distance, necessary fuel and time for various regimes of flight (ascending, cruising and descending) for the given levels of flight. For further analysis it is necessary to determine the changes in horizontal distance for every one of the regimes of flight with the change of height from the level of flight FL160 to FL240.

Using the Aviation Operative Manual, we obtain the following results: (Aircraft, 2006)

### Ascending to FL160

The values for the calculation of the speed in ascending KIAS (Knots indicated air speed) are obtained from the Aviation Operative Manual (Aircraft, 2006). The calculated value for FL160 je 205 KIAS. In this way the values for the other levels of flight to FL240 are obtained.

Table 1. Calculation of speed in ascending KIAS from FL160 to FL240

FL	160	170	180	190	200	210	220	230	240
KIAS	205	200	195	190	185	180	175	170	165

According to the data from the Table, we can notice the fall of the speed of KIAS for the value of 5 kt on every 1.000 ft of flight. According to the input parameters where: Type I is the type of ascending, a step during the whole flight 20, the approximate value of the mass of the plane of 26 tones, the plane takes off with RWY with PA = 3.000 ft and ascends to the level FL160 (the result of FL160-FL30 is used for obtaining the values in the table), by using AOM the following values for a horizontal distance, time of ascending and necessary fuel are obtained:

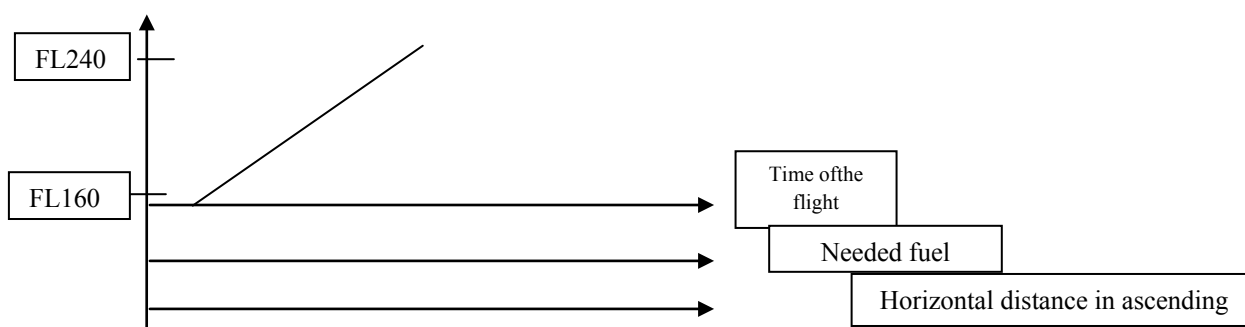
- Horizontal distance: **30,5Nm**; Ascending time: **9 min**; Necessary fuel in ascending: **234 kg**.

Now, it is possible to obtain the values for the change of the flight level from FL160 to FL240 according to the same principle.

By changing the height for 1.000 feet it is noticed that the time of the duration of the flight is 1 minute of which we come to the conclusion that the plane has the speed of ascending of 1.000 fpm, which, according

to the AOM for this plane the value match. According to the AOM, it is stated that at lower heights a plane has the speed of ascending 2500-3000 fpm, while by increasing the height the speed lowers. Also, it is noticed the dependence between the height change and horizontal distance with the consumption of fuel. Namely, on every 1.000 feet of the height change, the linear and horizontal distance increases for averagely 4 Nm, and also the consumption of fuel averagely for 18 kg. Such dependence between the results are noticed the most evidently on the graphic presentation of the Picture 1:

Picture 1. Dependence between the results, Level of flight with necessary quantity of fuel, time and horizontal distance in ascending



#### Descending FL160

The values for the speed calculation during descending KIAS are obtained according to the AOM. (Aircraft, 2006). The calculated value for FL160 is 277 KIAS. In this way, the values for the other levels of flight to FL240 are obtained.

Table 2. Speed calculation during descending KIAS from FL160 to FL240

FL	160	170	180	190	200	210	220	230	240
KIAS	277	277	277	268	260	250	247	243	240

According to the obtained results from the Table 2 it is noticed that by changing the height the speed KIAS reduces. The fall of the speed is not of the linear character, it is constant to the level of the flight FL180, and then it exponentially falls.

According to the input parameters where: Type I- the type of descending, a step during the whole flight 20, the approximate value of the mass of a 26 tone plane, the plane lands to RWY with PA = 2.000 ft from the level FL160 (the result of FL160-FL20 is used for obtaining the values in the table), using AOM, the following values for horizontal distance are obtained, the time of ascending and the necessary fuel:

- Horizontal distance: **34 Nm**; Time of descending: **11 min**; Necessary fuel in descending: **129 kg**.

Since the flight is executed according to meteorological conditions where ISA +20 is, it is necessary to do certain corrections where for ISA +20, there are the following conditions:

- 5% is added to the horizontal distance; 6% is added to the necessary fuel.

After the performed correction the results are the following:

- Horizontal distance: **36 Nm**; Time of descending: **11 min**; Necessary fuel in descending: **137 kg**.

Now, it is possible to obtain the values for changing the level of a flight from FL160 to FL240, according to the same principle. According to the obtained data it is achieved that, with changing the height for 1.000 feet, it is necessary the time of 2 minutes averagely, from which it can be concluded that a plane lowers in the speed of 500 fpm. Also, it is noticed that, by increasing the level of the flight the increase of horizontal distance in descending is not of linear character, at lower heights it has one linear character of 3Nm, while above FL180 it is the other form of linear character, averagely of 11 Nm on each 1.000 feet of height. The same rule is valid for the consumption of fuel because it is directly connected to the crossed horizontal distance.

#### Cruising at FL160

By using AOM, the values in cruising are obtained for KIAS, KTAS (Knots true air speed) and the consumption of fuel per an hour of flying. These values for cruising on the level of flight FL160 are:

- KIAS: **211 kt**; KTAS: **278 kt**; Consumption of fuel per an hour of flying: **878 kg/hr**

Also, using the values from AOM, according to the same principle it is obtained the dependence on the change of KIAS with the height of the flight, from FL160 to FL240. This dependence is shown in the Table 3:

Table 3. The calculation of speed KIAS in cruising depending on the change of height from FL160-FL240

FL	160	170	180	190	200	210	220	230	240
KIAS	211	210	209	208	206	203	201	199	197

According to the data from the Table 3, it is concluded that with the increase of height to FL180 the speed KIAS linearly lowers for 1 kt on every 1.000 feet, while above FL180 the linear character remains, so, on every 1.000 feet of height the speed of KIAS lowers averagely to 2 kt.

Besides the data obtained for the analysis of KIAS, by changing the height, the data for KTAS which also change with the change of height are significant. The trip speed GS depends on these values and it is calculated according to the wind (front wind during the whole flight of 20 kt) and KTAS. The trip speed on the level of a flight FL160 is:

$$GS = TAS + - Wind \quad (6)$$

- $GS (160) = 278 \text{ kt} - 20 \text{ kt}$ ;  $GS (160) = \mathbf{258 \text{ kt}}$

KTAS and GS values depending the height of the flight are presented in the Table 4:

Table 4. KTAS and GS values in cruising are shown depending on the change of the flight level of FL160-FL240

FL	160	170	180	190	200	210	220	230	240
KTAS	278	281	284	286	289	291	292	294	296
GS	258	261	264	266	269	271	272	274	276

Using the data from the Table 4 and the values obtained in ascending and descending, we obtain the following:

$$\text{Total distance} = \text{Horizontal distance in ascending} + \text{Distance in cruising} + \text{Horizontal distance in descending} \quad (7)$$

- Distance in cruising (FL160) =  $800 \text{ Nm} - (30,5 \text{ Nm} + 36 \text{ Nm}) = \mathbf{733,5 \text{ Nm}}$



Using the equation (7), the cruising distance values for other levels of the flight were obtained.

Table 5. Values of horizontal distance in cruising are presented with the change of the flight level of FL160-FL240

FL	160	170	180	190	200	210	220	230	240
Hor.dist.	733,5	727	718	704	688,5	672	656	641	627

According to the Table 5, it is noticed the difference in horizontal distances in cruising with the change of the height. The difference falls with a height linearly with the reduced difference to the level of the flight FL180, and above that height it is noticed the difference average of 16 Nm with the change of the height of 1.000 ft.

Using the values obtained in the equations (6) and (7) and later the Tables 4 and 5, it is obtained the time of flight in cruising:

$$\text{Time of flight in cruising} = \text{Horizontal distance} / \text{Trip speed} \quad (8)$$

- Time of flight in cruising (FL160) =  $733,5 \text{ Nm} / 258 \text{ Nm/hr} = \mathbf{2,84 \text{ hr} \rightarrow 171,5 \text{ min}}$

Using the equation (8) they are also obtained for the other levels of flight of the values of necessary time in cruising.

For the detailed analysis of time during the flight with the change of the values of the flight obtained in the Tables 4, 5 and the equation (8), they will be used in the equation (9):

$$\text{Total time of flight} = \text{Time of ascending} + \text{Time of cruising} + \text{Time of descending} \quad (9)$$

- Total time of flight (FL160) =  $9 \text{ min} + 11 \text{ min} + 171,5 \text{ min} = \mathbf{191,5 \text{ min} \rightarrow 3,17 \text{ hr}}$

Using the equation (9), you also get the values of the time needed for the other levels of the cruise flight.

Table 6. Total time of the duration of a flight, shown with the change of the level of the flight of FL160-FL240

FL	160	170	180	190	200	210	220	230	240
Time(hr)	3,17	3,14	3,10	3,08	3,04	3,01	2,99	2,96	2,94

According to the Table 6 it is noticed that, by increasing the height the time of duration of the flight is reduced. Also, according to the analysis of the time necessary for a flight it is noticed that the time of ascending and descending is significantly longer for higher levels of the flight, the time is directly connected the consumed energy for the plane to gain and lose the height. It is an important fact that horizontal distances in cruising are significantly shorter at higher levels, because, during ascending and descending the greater horizontal distance is necessary for higher levels of flight, and for that period in ascending and descending did not influence that the total period of flight duration at higher levels of the flight to be shorter. For defining the necessary quantity of fuel in cruising the values from AOM and the values obtained in the table 6 are used:

$$\text{The quantity of fuel in cruising} = \text{Consumption of fuel per an hour of flight} \times \text{Period of flight duration} \quad (10)$$

- The quantity of fuel in cruising (FL160) =  $878 \text{ kg/hr} \times 2,84 \text{ hr} = \mathbf{2.493,5 \text{ kg}}$

Using the equation (10) they are obtained for the other levels of flight of the values of the necessary quantity of fuel in cruising. For the detailed analysis of the total quantity of fuel necessary during the flight with the change of the height of the value obtained in earlier calculations will be used in the equation (11):

Total quantity of fuel = Quantity of fuel in ascending + Quantity of fuel in cruising + Quantity of fuel in descending (11)

- Total quantity of fuel (FL160) = 234 kg + 2.493,5 kg + 137 kg = **2.864,5 kg**

Using the equation (11) they are obtained for the other levels of flight of the value of the total quantity of fuel Table 7:

Table 7. Values of the total quantity of fuel shown with the change for the level of flight of FL160-FL240

FL	160	170	180	190	200	210	220	230	240
K.g.	2.864,5	2.806,2	2.750,3	2.710,2	2.673,7	2.650,9	2.644,1	2.611,7	2.587,3

According to the Table 7, it is noticed that with the increase of the height the total quantity of fuel is reduced. Also, according to the analysis of the fuel necessary for a flight it is noticed that the fuel necessary for ascending and descending is significantly greater for the greater levels of flight, the fuel is directly connected to the consumed energy for the plane to gain and lose the height. It is important fact that significantly lower quantity of fuels at higher levels is needed in cruising. Summarized, although the greater quantity of fuel is necessary during ascending and descending for higher levels of a flight, that does not influence the change that the total quantity of fuel at higher levels of flight to be lower than at lower levels of the flight.

### 3. Conclusion

*“Aviation is not unsafe but it is like a sea, unforgivable for any carelessness or recklessness.”*  
(Grbic, 1978)

According to the results obtained in the section 1.3, the obtained data show that comparing the performances of the planes DHC 8 Dash 8 Q 400 at various levels of a flight, economically (considering the quantities of the necessary trip fuel) and considering the time taken, it is better to choose the level of flights at greater height than at the lower one.

The problems with fuels and the knowledge that oil resources are very limited and that there have not been discovered new kinds of fuel in the beginning of the new millennium, many air companies, on the basis of their calculations- planning of trip fuel, have made a conclusion that in the regional air transport the application of jet passenger planes is not profitable. The proportion in the ticket price for a destination and the possible realized profit, which has often been under the limit of profitability, with jet passenger planes, it has shown that in the case of turbo propeller planes which are adapted to regional transport, it gives far better results and the company can count on making profits thanks to the better flying performances and that was specially related to the fuel consumption.

The importance of the conclusions made by engineering calculations of trip fuel consumption with the change of the level of flight is confirmed by the published data of the air company Malaysia Airlines which, in May 2013, made the contract worth three billion dollars for the purchase of 36 ATR 72-60 the latest model of that manufacturer on the count of the fact that in the last quarter of the year 2012 they presented the fall of the profit because they used jet passenger planes for regional transport, while, contrary to that fact, they had 12 ATR 72-500 in the fleet and they provided the growth of the profit in the regional transport to the company in the same period. Obviously, the future of regional transport will be

the turbo-prop engines because of lower consumption of fuel and more rational all other parameters which is, in the end, shown through the profit of the company.

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## SAFETY RISK OF THE USE THE AMMUNITION WITH DEPLETED URANIUM

**Abstract:** The use of ammunition with depleted uranium (DU) presents a danger to humans and the environment both during and after combat operations. The suffering of the civilian population does not stop after the bombing due to environmental contamination by radioactive means. Ecological security is a part of general security, and it was threatened by the NATO aggression against FR Yugoslavia. War actions damage the environment due to the use of various types of weapons and war techniques, especially when they deliberately target chemical plants and storage facilities filled with dangerous and harmful substances. The beginning of the use of ammunition containing DU is related to the US military tests during the 1970s and 1980s. Depleted uranium is created as a by-product of the process of uranium enrichment, that is, the production of fuel for nuclear reactors, and consists mainly of natural radioactive isotope U-238. The decision that the kinetic energy penetrator is produced of DU is mainly due to its two physical properties: high density and its pyrophoric nature. The central target of this work is the influence of radiation arising from the use of depleted uranium on the human body. After almost 20 years since the NATO bombing of the Republic of Serbia, accurate and official data of the consequences for the environment and health of the population are not available. In addition to the fact that the DU radiation is really "weaker" compared to radioactive uranium, its chemical and radiological effects can not be overlooked if its concentration is high enough.

**Keywords:** depleted uranium, safety risk, NATO bombing

### 1. Introduction

The use ammunition with depleted uranium (hereinafter the DU) raises awareness of both professional circles and the wider public. With the end of the combat operations, the civilian population is still at risk because of the environmental contamination with radioactive means. The connection between the military use of nuclear energy and civil consequences is often hushed up. The data on allowed radiation doses are considered, and the fact that children and fetuses are more sensitive is ignored. Various information is present in the media that can be disturbing, as they point to the harmful ecological and health consequences of warfare.

Ecological security is a part of general security, and it is threatened by the NATO aggression against FR Yugoslavia. The effects of war in themselves damage the environment due to the use of various types of weapons and war techniques. In the case of the FRY bombing, the chemical industry and storage facilities filled with dangerous and harmful substances were deliberately targeted, which caused ecological damage of enormous proportions. The focus of interest of this paper is the influence of radiation which arises as a result of the use ammunition containing depleted uranium.

The beginning of the military use of the DU relates to the United States Army that tested it during the 1970s and 1980s (Ebinger M.H, 1996), and used as a weapon in the "Desert Storm" war in Iraq (1991) (Defense, 1998). Ammunition with the DU was used in the wars in Bosnia 1995, Serbia 1999 (Presenter:

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Mr. Kenneth H. Bacon, 1999). The use of ammunition with the DU continues in the clashes in Afghanistan (2001) and Iraq (2013).

Depleted uranium in its composition mainly contains natural radioactive isotope U-238. DU is produced as a by-product of the process of uranium enrichment, that is, the production of fuel for nuclear reactors and atomic bombs. Its basic characteristics are: low specific radioactivity (alpha particle emission), high specific density, low price, wide availability (WHO, 2001). Proponents of the DU application emphasize that it has low radioactivity, 60% lower than natural uranium (Zucchetti, 2009), but the fact that it has adverse environmental effects should not be neglected. A more detailed view of depleted uranium is found in point 2 of this paper

High density, pyrophoricity and low price led to increased interest for the DU, or its application for the weapons and ammunition production in the United States (Army, 1995). High density and pyrophoric nature were two of the most significant physical properties that have influenced on the decision to produce the penetrator of kinetic energy from the DU. Ammunition is intended for the destruction of armored vehicles and shelters, but the contamination of the terrain for a longer period of time can't be ignored. Grenades have higher kinetic energy, and no explosion occurs during impact. More about the characteristics of ammunition with the DU will be discussed in point 3 of this paper.

In point 4 of this paper, an impact of the radiation generated as a result of the use of ammunition with the DU is presented. Many publications and studies pointed to later problems that occurred in people who were in contact with materials resulting from the use of ammunition with the DU. The wide range of diseases such as leukemia, cancer, neurological diseases and birth defects are recorded. The number of such cases has risen sharply in areas of warfare that were conducted during the nineties.

## 2. Depleted uranium

Considering the use of depleted uranium is a security issue because of its direct and potential dangers for humans and the environment. Although potentially harmful substances, the DU is no less present in modern weapons, and is widely used in the Gulf War (1991 and 2003), as well as in Bosnia, the Balkans and Afghanistan.

Uranium (U) is a radioactive chemical element, metal silver gray. Natural uranium consists of three different isotopes: 99.2836% U-238, 0.7110% U-235 and 0.0054% U-234. Isotopes are chemically distinct atoms of the same element, which have the same number of protons in the nucleus of the atoms. They differ in the number of neutrons, so they have different masses and nuclear bonds. Isotopes can be stable or unstable, and unstable isotopes are called radioactive. Isotopes of natural uranium are radioactive as well as their products.

Uranium has become significant because of its application in civilian and military nuclear technology. Nuclear power plants in the world produce over 11% of electricity (Association). For the nuclear energy the most significant is the U-235 because it provides a self-sustaining chain reaction. Its concentration in natural uranium is not sufficient, and it needs to be increased. In order to use uranium as fuel, the content of U-235 should be increased from 0.71% to over 3% depending on the type of reactor.

Various technologies are used to increase the concentration of the U-235, and in common this process is called enrichment of uranium. Natural uranium atoms are separated into a mixture containing more U-235 and the other less U-235. A part with more than 0.711% of the U-235 is called enriched, and the part with a smaller percentage is depleted uranium. Usually the rest of natural uranium contains approximately 0.2-0.3% U-235 after the enrichment process. Depleted uranium is a wasteproduct of the production of fuel rods for nuclear power plants and nuclear powered ships, as well as from the production of highly



enriched uranium for nuclear weapons. The remaining uranium from the process of enriching natural uranium is depleted uranium, the so-called. "Clean" DU.

The uranium produced in the process of processing spent nuclear fuel, as well as the DU from the process of enrichment, processed in the plants for the processing of thinned nuclear fuel is the so-called "dirty" DU. In this depleted uranium there are U-236, Pu-239, Pu-240 isotopes, and even other isotopes produced by fission or neutron activation in a nuclear reactor, such as Tc-99, Np-237, Am-241, Am-243 and Cm-244. In ammunition made from the DU there are some radionuclides from the series of disintegration of U-235 and U-238 (Pavlović R P. S., 2001).

Observed from the chemical aspect, uranium and DU behave equally, so everything that is known for uranium can also be applied to the DU. Metal uranium is a very reducing agent that reacts violently with non-metals, and at room temperature it is slightly oxidized. Combustion of uranium produces oxides  $\text{UO}_2$ ,  $\text{UO}_3$  and  $\text{U}_2\text{O}_3$ , of which the first two are easily soluble in water and body fluids, and the third is slightly soluble. Uranium occurs in the form of aerosols when the ammunition with the DU is operating, when spontaneous combustion occurs, at temperatures of 600-700°C (Orlić M, 2000).

Countries that produce and use ammunition with the DU are speculating with skillfully packaged, at first glance convincing but irrelevant facts. One of these is the fact that depleted uranium is "less radioactive" than natural uranium in the environment. The fact is that the specific activity of the DU is less than the concentration of activity in natural uranium, but it is also the fact that the concentrations of the activity of the natural U in the environment are extremely low in relation to the concentrations that can be measured at the locations of the effects of ammunition from the DU (Pavlović R P., 2001). It is especially irrelevant in comparison to the concentrations of natural uranium activity with radioactive elements which are not found in nature and which are kept in accordance with a strictly prescribed procedures. Any deliberate dissipation of the DU into the environment will contribute to the increase in the existing values of the uranium content in nature.

In addition to the lower specific radioactivity of the DU, biological effects (chemical and radiological) can't be neglected if its concentration is high enough as with any other pollutant. It is known that uranium, as heavy metal, has a toxic effect on individual organs in the human body similar to that caused by other heavy metals, such as lead or cadmium. An additional problem with DU is due to the fact that it remains radiologically active due to the long half-life. Negative effects of DU on humans can occur if they are exposed to radiation or if they come into physical contact, or eat or drink contaminated food. Also, dangers are aerosols generated during impacts and combustion of depleted uranium ammunition. Aerosols can pollute a wide area around the impact site, which depends on the configuration of the terrain and the direction of wind.

Depleted uranium has a high specific density, about twice that of lead, and has a series of civil applications. It is used as counterweights or ballast in aircraft, protective layer of radiation in medical equipment for radiotherapy and for the coating of containers used for the transport of radioactive materials (WHO, 2001). The amount of DU used for civil purposes is significantly lower than that used for military purposes. There are several reasons why DU is used for military purposes, due to its density and strength, it is used for the production of penetrators and armored panels. Accordingly, the DU is for military purposes used for the production of ammunition that pierces the armor and for protection against such ammunition. Another reason why the DU is used for military purposes is its pyrophoric nature, when burns in the air, slowly, keeping the flame.

### 3. Depleted uranium ammunition

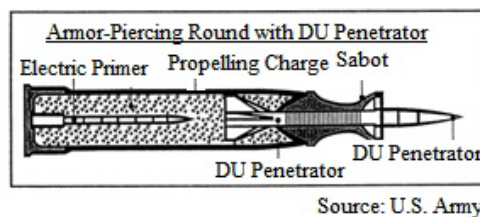
Viewed through history, various structures for the protection of soldiers and offensive warfare have been developed. During the First World War a tank entered the world scene. The development of tanks and

other armored weapons led to the need to develop weapons for their disabling. Thus, the so-called "panzer" projectile that penetrated through steel armor thanks to the great kinetic energy and the mechanical properties of the metal from which it was made. After the Second World War, cumulative shells that explode at the moment of impact in the armored weapon are introduced into use.

A permanent arms race continues, constructors are trying to make new efficient shields as well as new ammunition that will easily pierce those armor. In the 1960s, as a priority goal, high precision and safe destruction of targets were being set, so attention is again focusing on "panzer" ammunition. The kinetic energy of the projectile is significant for breaking armored panels, and it is a function of mass and velocity. The solution was sought to reduce the caliber and mass of the projectile, and to increase its speed. Small missiles were produced that were smaller than the caliber of the weapon (sub-caliber), and they were added a special sabot that is in the caliber of the weapon (cannon).

The sabot takes the necessary thrust of the explosive charge and the stable rotation in the barrel with grooves. Standard anti-armored projectiles are made of materials of higher hardness, so it more damage the pipes of the tools from which they are fired. In the sabot made of soft metal, a tray was built in which a small sub-caliber missile made of heavy metal - a penetrator - was located. When the sub-caliber projectiles are in the sabot, the missile speed is not very large. The sub-caliber projectiles in which the sabot is detached immediately after leaving the tube is a smaller caliber, that is a smaller diameter, the air resistance is lower, so it has a higher speed

Figure 1: Longitudinal Section, Armor-Piercing Round with DU Penetrator



In the early seventies, the US military began a study of the use of depleted uranium for kinetic energy penetrators and for protective shields. High density materials such as tungsten (density  $19.3 \text{ g/cm}^3$ ) and DU (density  $19 \text{ g/cm}^3$ ) were tested. The DU was eventually selected because of its availability, price and pyrophoric nature (Bleise A, 2003). Alloyed with 2% molybdenum or 0.75% titanium and after special thermal treatment, uranium is hard as steel. Combined with its high density, it is a material that is suitable for ammunition that pierces the armor. (Schmid E, 2001). Because of the technical characteristics of the DU other countries this type of ammunition have been introduced into its armament.

Figure 2: Armor-piercing ammunition shortly after being fired



Source: (Schmid E, 2001)

The penetrability of a projectile made of DU is effective not only because it can pierce armor better than other materials, although it is a fact, but also because it burns in contact. When a missile strikes a shielded target, it does not deform at the contact, but instead penetrates through the armor. While the DU projectile penetrates the target, its outer layer lights up, creating a very fine radioactive dust which essentially lubricating the remaining missile, helping it to penetrate further. It is estimated that, after the impact,

about 30 percent of the projectile burn up creating dust from uranium oxide (Uranium, 2005). This is a radioactive gas consisting of extremely small particles which mixed with dust are spread around the environment by wind.

Ammunitions containing depleted uranium were used in the NATO aggression on the Federal Republic of Yugoslavia in 1999 against targets in Kosovo and Metohija, Montenegro and southern Serbia. The 30mm-calibre PGU-148 API type containing 298 grams of depleted uranium was fired from a 7-barrel gun carried on A-10 *Thunderbolt II* aircraft. The number of targets quoted in the report submitted by NATO to the panel of experts on depleted uranium in Geneva in 2000 at the request of UNEP and the data available to the Serbian military: according to the latter, 85 locations were targeted in Kosovo in Metohija, 4 in southern Serbia and 1 in Montenegro (UN, 2008).

When the bullet fitted with depleted uranium hits the target apart of it burning upon impact on a hard surface leads to the creation of particles and aerosols. If the impact is made at the right angle, the ensuing temperature rises to over 1,000° C accounting for the burning/oxidation of a part of uranium. An impact on a soft surface (land) only a small fraction of the bullet is transformed into aerosols the large particles of which are deposited at the place of the impact, penetrates the surface about 1m deep. Depending on the weather conditions, the small particles may be spread kilometres away, leading to radioactive contamination of large expanses of soil and atmosphere (UN, 2008).

The particles are entered into the human body either by inhalation or through the consumption of food and water. There are deposited in the lungs, kidneys, bones and the brains for years. Uranium is not easily solved in water and bodily fluids. DU oxides are and may over time contaminate underground waters and, through plants used as fodder and human food, animals and people.

#### 4. The consequences of using ammunition with DU

The human being is constantly exposed to radiation, which comes from radionuclides from the environment. The sources are different, as are the types of radiation energy they are exposed to. Although they are not noticeable through senses, there are reliable testing and measurement techniques, which provides an insight into the nature of the processes that take place in the environment, as well as data on how much and what way humans is exposed to radiation (Draganić, 1995). The dose of radiation that a person receives depends on the radioactivity of the soil and air of the region in which he lives, as well as the foods and water that he enters into his body. The effect of radiation on the substance is characterized by the absorbed dose or the absorbed energy per unit mass, that is, the amount of energy that ionizing radiation transfers to the mass unit of the irradiated substance.

Radioactive elements spontaneously decay by emitting several types of radiation. Alpha particles are positively charged, the structure adequate to helium core  $\text{He}^{2+}$ . Alpha particles have the highest energy and very densely local ionize, so they are especially dangerous to humans. Beta particles are electrons or positrons of high energy and velocity. Gamma rays are electromagnetic radiation similar to X-ray radiation, but they have greater energy and are more penetrating and pass through the human body. The basic characteristic of any type of radioactive radiation, on the medium through which it passes, is the energy the radiation transfers to the substance during irradiation.

The data concerning overall mass of DU that was used in the NATO aggression on the Federal Republic of Yugoslavia varies from source to source. One source states that NATO used around 10 tons of DU for various kinds of ammunition (Schmid E, 2001). While there are other sources presenting different data, this number was used in further calculations.

First of all, it is important to state that while most of DU consists of less radioactive U-238, there is still around 0.3% of U-235 present in an average sample (Schmid E, 2001). Given this fact, it can now be

calculated that the total mass of U-238 that ended up in Yugoslavia is 9.97 tons, while for U-235 that mass is around 30kg.

Because radioactivity from different sources can be added up, both U-235 and U-238 can be considered separately.

#### Uranium 238

U-238 is a less radioactive isotope of uranium and while its radioactivity is considerably lower in comparison to U-235, its contribution to total radiation must be taken into account because of its mass. Half-life of U-238 is 4.468 billion years, or  $1.41 \times 10^{17}$  s (Rajković, 2001). Decay constant ( $\lambda$ ) for U-238 can now be calculated.

$$t_{1/2} = \frac{\ln 2}{\lambda} \quad (1)$$

$$\lambda = \frac{\ln 2}{t_{1/2}} = 4.916 \times 10^{-18} \text{ s}^{-1} \quad (2)$$

When calculating total activity ( $A$ ) two more values must be known – the number of uranium atoms present in given sample ( $N_0$ ) and duration of radioactive decay ( $t$ ). Total number of atoms can be calculated using total mass ( $m$ ), molar mass of U-238 ( $M$ ) and Avogadro's number ( $N_A$ ).

$$N_0 = \frac{m}{M} \times N_A = \frac{9.97 \times 10^6 \text{ g}}{238 \text{ g/mol}} \times 6.02 \times 10^{23} = 2.52 \times 10^{28} \text{ atoms} \quad (3)$$

NATO aggression on the Federal Republic of Yugoslavia happened in 1999, which means that roughly 19 years have passed since then.

$$t = 19 \text{ years} = 6 \times 10^8 \text{ s} \quad (4)$$

Total activity of U-238 for this time period can now be calculated.

$$A = \lambda \times N_0 \times e^{-\lambda t} = 4.916 \times 10^{-18} \text{ s}^{-1} \times 2.52 \times 10^{28} \times e^{-4.916 \times 10^{-18} \text{ s}^{-1} \times 6 \times 10^8 \text{ s}} = 1.388 \times 10^{11} \text{ Bq} \quad (5)$$

#### Uranium 235

U-235 is a radioactive isotope of uranium and despite its relatively low mass in given sample it shouldn't be ignored when calculating total radiation. Half-life of U-235 is 703.8 million years or  $2.22 \times 10^{16}$  s. Calculations for U-235 were done similarly as those for U-238.

$$\lambda = \frac{\ln 2}{t_{1/2}} = 3.122 \times 10^{-17} \text{ s}^{-1} \quad (6)$$

$$N_0 = \frac{m}{M} \times N_A = \frac{30000 \text{ g}}{235 \text{ g/mol}} \times 6.02 \times 10^{23} = 768.51 \times 10^{23} \text{ atoms} \quad (7)$$

$$A = \lambda \times N_0 \times e^{-\lambda t} = 3.122 \times 10^{-17} \text{ s}^{-1} \times 768.51 \times 10^{23} \times e^{-3.122 \times 10^{-17} \text{ s}^{-1} \times 6 \times 10^8 \text{ s}} = 2.399 \times 10^9 \text{ Bq} \quad (8)$$

#### Total

Total activity of DU can be calculated as a sum of total activities of U-235 and U-238.

$$A_{DU} = 1.419 \times 10^{11} \text{ Bq} \quad (9)$$

These numbers are of little value without a certain reference point. The concentration of activity in some soil samples at the site of the DU ammunition action is up to several hundred kBq/kg U-238, which are values that are up to several tens of times greater than the natural content U-238 (Pavlović R, 2001).

Harmful effects of radiation depend on the dose received by the person, if it is greater then the consequences are more serious. The consequence also depends on other circumstances, such as age, sex, health and conditions in which the radiation occurred. It is not difficult to conclude that there is no safe exposure to ionizing radiation because the smallest dose can lead to the creation of an appropriate amount of chemical reactive compounds. In particular, children are more sensitive to radiation than adults (Morgan, 1975).

The deliberate dissipation of the DU into the environment will contribute to the increase in the existing values of the amount of uranium in the environment and cause additional hazards to humans and the environment. It is well known that many publications and studies have put into evidence that, subsequently, the incidence of leukaemia's, cancer, neurological diseases and birth defects have risen sharply in that area and in other DU-polluted battlefields during the nineties (Zucchetti, 2009).

## 5. Conclusion

War effects in themselves damage the environment due to the use of various types of weapons and war techniques. Depleted uranium is dangerous for the population during and after combat operations because of environmental contamination with radioactive means. High density and pyrophoric nature were two of the most significant physical properties that have influenced on the decision to produce the penetrator of kinetic energy from the DU.

Uranium has become significant because of its application in civilian and military nuclear technology. For the nuclear energy the most significant is the U-235. In order to use uranium as fuel, the content of U-235 should be increased from 0.71% to over 3% depending on the type of reactor. Depleted uranium is a waste product of the production of fuel for nuclear power plants, nuclear powered ships and highly enriched uranium for nuclear weapons.

Specific radioactivity of the DU is less than natural uranium in the environment but its biological effects (chemical and radiological) is high enough as any other heavy metal pollutant. It is known that uranium has a toxic effect on individual organs in the human body similar to that caused by other heavy metals, such as lead or cadmium.

The kinetic energy of the projectile is significant for breaking armored panels, the solution was sought to reduce the caliber and mass of the projectile, and to increase its speed. Small missiles were produced as sub-caliber, and they were added a special sabot that is in the caliber of the weapon (cannon). A permanent arms race continues, constructors are trying to make new efficient shields as well as new ammunition that will easily pierce this armor.

Based on the survey of the identified locations in Serbia, it was established that there was no relatively homogeneous contamination of the terrain of wider size. It would have happened that the hard armor was hit and that about 70% of the mass of the DU had been burnt. In the combustion process, depleted uranium is converted into fine aerosol particles that could spread to relatively large spaces.

After that roughly 19 years since the NATO bombing of the FRY, official data of the exact consequences for the health of the nation are not publicly available. Unfortunately, the main source of information is provided by those who are responsible for "wasting" radioactive waste in Serbia. Some experts warn of the dramatic effects of chemical and radiation pollution and a drastic rise in malignant and other severe diseases. The fact is that there is an increase in the number of malignant diseases in the area where ammunition with DU was used.



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## PROCESSES PERFORMANCE MEASUREMENT

**Abstract:** The performance measurement process is right and only acceptable to observe, as an overall management system including prevention and detection, in order to harmonize the service or product with the requirements of stakeholders. The performance measurement process is conceived as a process of optimization, through increasing the effectiveness and efficiency of the organization, its processes, services or products. All activities are realized in the organization, using certain techniques, or by applying and changing the standards themselves. In the work itself, we will go through some of the TQM, EFQM and SCOR process modeling models and their comparative overview.

**Key words:** Performance, TQM, EFQM, SCOR, a comparative analysis.

### 1. Introduction

The term of performance is of English origin, and it is translated as an effect or success. The performance of the process or performance of an organization, simplified, can be defined as the performance or success of a process or organization, which must be expressed in some size. Performance measurement is defined as, determining the value of performance, that is, measuring the value of its performance or success. However, even the best performance management system can provide us with information only, but can not make decisions instead of the manager. Perhaps Mr. Karl Hahn, formerly the first man of the Volkswagen, gave the best answer to the question of purpose or the meaning of measuring the performance of the process, saying that it can not be to improve, what is not measured, and that what can not be measured can not be measured (Radović, M., Karapandžić, S., 2005).

### 2. Total quality management (TQM):

The model of the performance measurement system, proposed by David Sinclair and Mohamed Zairi (1995b), is based on the concept of total quality. The model consists of five threads, and is designed to measure and evaluate performance at each level, according to a specific procedure. A comprehensive model of the performance measurement system can be displayed as a series of complementary PDCA cycles.

Each cycle functions with different frequencies, and within each cycle there are individual cycles for each performance measure. The frequency of the cycle depends on the organizational level, the cycle of the process time and the criticality of the measurement.

The developed model enables the introduction of an integrated performance measurement system, where individuals at all levels of the organization and all measurements are focused on continual process improvements due to greater customer satisfaction (Sinclair & Zairi, 1995b).

The model involves regular review of process measurement at all levels, to ensure that measurement is aligned with changes in a competitive environment (Sinclair & Zairi, 1995b).

The prescriptive list of measures at each level of the model for the performance measurement system is not identified (Sinclair & Zairi, 1995b).

The model is suitable only for organizations that have introduced a total quality management system (Sinclair & Chang, 2002).

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### 3. European Foundation for Quality Management (EFQM):

Another widespread and popular measurement concept is the Business Excellence Model proposed by the European Foundation for Quality Management (European Foundation for Quality Management, early 1992 as a framework for assessing applications for European and National Excellence Awards.

The EFQM's excellence model is a useful tool that helps organizations set up a measurement system that allows them to know clearly as they arrive on the road to excellence; helping them understand where problems are and direct them to possible solutions. EFQM is constantly checked and modernized by the "good business practice" of thousands of organizations in Europe and beyond. In this way, it ensures dynamism and consistency with modern management practices (Quality Management, etc.).

The EFQM's excellence model is based on nine criteria, which can be used to assess the organization's progress towards excellence, regardless of the type of organization, size of structure and maturity. Five of these criteria represent "capabilities" (factors) and the remaining four criteria are "results". The authors talk about what the organization is doing and the results achieved by the organization. The results are the consequence of the factors, which we improve with feedback from the results (Quality Management, etc.). This model explicitly emphasizes the possibilities of improving performance and indicates the areas of results to be measured (Neely et al., 2007).

Answers to questions make it possible to make a list of advantages and disadvantages for each individual criterion of excellence models. RADAR is used to evaluate 32 EFQM sub-criteria separately, as well as to evaluate the organization as a whole (Kalač, 2012).

In essence, RADAR is the core of the EFQM model itself (EFQM, 2009). It implies continuous improvement of business processes in order to achieve business excellence. The name RADAR was created as an acronym of the terms Results, Approach, Deployment, Assessment, and Review.

The organization is evaluated using the RADAR matrix, so that all sub-criteria are evaluated individually within each of the nine criteria, and then the total number of points won by the organization is counted. The weights for individual elements were established in 1991 and they are re-examined and changed at certain time intervals. Also, within each criterion, subcriteria have a certain percentage share, the total amount (for each criterion) is equal to 100%.

The percentage participation of the criteria for the criteria within the "Opportunities (Factors)" is the same, while in the "Results" sub-criterion has different configurations.

In order to carry out an assessment (or self-evaluation) of company's level of excellence, all 9 criteria are used. The maximum sum that one company can get is 1000 points (Kalač, 2012).

Some of the advantages that can be found in the literature are that the EFQM model:

- Although not designed as a performance measurement concept, it has a wider view of performance, naming many performance areas that the BSC does not consider (Neely et al., 2007).
- It is applicable to all types of organizations from all sectors.
- It provides a relatively objective analysis of the situation in the organization, with which it produces numerical estimates (between 0 and 1000 points), which allows comparison with other (best) organizations, and the transfer of good practice, regardless of the type and size of the organization, as well as comparison with previous periods (Hillman, 1994; Kern Pipan & Leon, 2010).
- It recognizes the strong and weak points of the organization (Striteska & Spickova, 2012).
- It specifies the areas that an organization should consider to improve its business results (Bou-Llusar et al., 2005).

- It encourages organizations to achieve and maintain a high level of performance to meet or exceed the expectations of all their stakeholders (EFQM, 2009).
- It enables objective identification of strengths and weaknesses of the company, analysis of the company's performance from the perspective of users, and the development of a strategic vision for continuous performance improvements (Hakes 1996).
- It enables a narrow selection of indicators based on good examples from practice (Striteska&Spickova, 2012).
- It enables organizations to establish a comprehensive system for measuring progress (Kern Pipan& Leon, 2010).

#### 4. Supply Chain Operations Reference Model (SCOR):

Supply Chain Operations Reference Model was created by the Supply Chain Council (SCC).

SCC was presented in 1997 in the 1.0 version of the SCOR model, and in 2012, the organization's members of the Council officially presented the latest 11th version of the SCOR model (SCOR 11.0, etc.).

The SCOR model provides a theoretical framework that links the business process, measured indicators, best practices and technological characteristics into a cohesive structure that allows communication between the partners in the chain and increases the effectiveness of chain management and related promotion activities. It consists of three process levels (Figure 4-12) and is based on five key processes (planning, procurement, production, delivery and return) (Sikavica and Hernaus, 2011).

At the first (highest) level of the model, objectives are defined and the scope and content of the SCOR model is determined.

The SCOR model does not define the fourth level, which implies the continuation of the decomposition, because the activity specification is specific to each company. In other words, SCOR defines the architecture of the supply chain and all processes at a high level and leaves the technical implementation of the fourth level process to individual members (Harmon, 2007).

In order to make the SCOR model easier, the SCOR model, which defines each sub-process of the second and third level, has also been developed, and also indicates which planning and support processes are associated with each process or sub-process (Harmon, 2007). The manual also defines performance indicators for each of the processes, making it easier to implement the model itself (Sikavica and Hernaus, 2011).

The SCOR model has defined a total of over two hundred performance indicators for different processes in the supply chain (Harmon, 2007). Performance measures for the previously described performance attributes can be found in the (Supply Chain Council, 2010), and due to the large extent they are not shown in this paper. The table shows some basic performance measures of the first level in the SCOR model, which are defined for the previously described attributes.

**Comparative analysis of the system:**

Table 1.: comparative analysis for performance measurement (adapted from Simeunović et al, 2013)

critereon	model	1. Purpose	2. Basis	3.performance measures	4.connection	5. Indicators	6. Complexity ^	7. Steakholders	8. Improvements	9. Comparison	10.flexibility°	11.adaptibility	12. Indicators - goals
TQM	Identific ation of the area for process improve ments due to greater custome r satisfact ion	Strategy, goals and processes	Measure s for which external parties are intereste d and measure s for the compan y	Yes	No	3	Beneficiaries, employees, shareholders and society	Continuous improvements	TQM organization	0	No	No*	
EFQM	Objectiv e analysis of the strategy in the organiza tion	Predefined criteria	Executio n	yes	A narrow set of indicators is defined	3	All stakeholders but not with the same character	Continuous improvement of the process for achieving business	Yes with the best organisms	3	No	No	
SCOR	Describe the measurement and estimation of the supply chain	Process and subprocesses in the supply chain	Strateške mere, mere procesa za prva tri nivoa modela	Yes	Yes	2	Korisnici i dobavljači	Poveć anje efikas nosti upravlj anja lance m snabde vanja	Samo sa organizacijom koje koriste modele	0	/	No	



^In determining complexity, the complexity of data collection, the complexity of the implementation, and the complexity of the model for use are taken into account, and the model is:

0-simple to all three criteria

1- Compound according to one of the three criteria

2- Compound according to two of the three criteria

3- Composed according to all three criteria

\* The model starts from the goals of the organization in defining the performance measure, but does not specify their direct interdependence.

°The flexibility of the model is defined on four levels:

0- The model is not flexible, that is, it is defined only for a particular type of organization

1- The model is somewhat flexible, ie it can be applied in all organizations, but with significant / long-term changes in the model

2- The model is flexible, ie it can be applied in a wide and varied range of companies, but only at the level of different processes in the organization, not at the level of the whole organization

3- The model is completely flexible, ie it can be applied in a wide and diverse range of companies, without significant changes in the model itself

Therefore, 12 criteria have been selected, which allow the models to be compared based on available literature, and these are the following criteria:

1. The purpose of the model;
2. Basis for determining performance measures;
3. Performance Measures (Whichgories);
4. Interconnection of performance measures;
5. Specificity of the indicators to be measured;
6. Complexity;
7. Steakholders considered in the model;
8. Incorporation of the improvement system;
9. Possibility of comparing with competition;
10. Flexibility of the model;
11. Model adaptability and,
12. Direct interdependence of the process indicators and objectives of the organization.

From the above table we can see that these models are designed for different purposes. The purpose of the analyzed model is to achieve improvement, in terms of cost reduction, or increase productivity and efficiency, as in the TQM model, while in the EFQM model it is an assessment of productivity, effectiveness, efficiency and other performance.

TQM takes strategy or goals in determining performance. This is understandable given that performance measures need to show if an organization is on track to achieve its goals.

The EFQM model and the SCOR model link different performance measures to each other, that's good, as this gives you a comprehensive approach to performance measurement throughout the organization. EFQM and SCOR models specify performance indicators, but only for individual business areas.

TQM and SCOR models do not have flexibility, while EFQM is fully flexible. Flexibility itself implies the possibility of applying certain models in organizations without significant changes.

Concerning their complexity, EFQM and TQM are complex models (3/3), while SCOR is slightly less complex (2/3), their parameters are explained in the table.

As for the organization's own stakeholders in the models, two of the three analyzed (EFQM and TQM) are considered by several groups of stakeholders. While the SCOR model considers suppliers and users as stakeholders.

All models implement the concept of continual improvement, because if not, they would not be able to survive.

With the criteria of comparing with competition, only the EFQM model allows comparison with competition on any organization.

In the latter part of the criterion, the adaptation of the model implies rapid modification of the performance measurement system in different situations, and most of the changes that affect the organization's strategic goals. It is not possible to capture and compare all models here, because certain models do not link performance measures with the goals and strategies of the organization (SCOR).

The last criterion is the direct interdependence of the process indicators and objectives of the organization, it can be concluded that not one model directly links objectives with performance indicators.

## 5. Conclusion

By analyzing the research in the literature, it is concluded that the measurement of the process's performance attracts a lot of attention and that the progress made in the last decade has been made. Each of the observed models for measuring the performance of the process has certain advantages and disadvantages, but depending on the organization itself and its needs, one of the models is selected. It is easier if the organization fits one of the fleshbibli models, since its application and introduction is much easier. The environment is continually evolving and changing, as well as the goals themselves, and a strategy that changes in line with environmental changes, and then it is necessary to quickly notice and change certain process performance indicators, which are important information about the organization's progress towards achieving goals.

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## BUSINESS OPERATIONS OF CORPORATIONS IN CONTEMPORARY GLOBAL CONDITIONS

**Abstract:** In contemporary conditions security of citizens and the state have become a priority and particular attention has been given to improving corporate security, which includes the improved protection of employees, protection of material property, business success, and quality of the implementation of business processes in corporations, the protection of service users, the protection of information and the reputation of the business organizations due to various potential hazards, risks, property damage, criminal activities etc..

In the introductory part of the paper, the author will define the term corporation in contemporary global conditions. Further, the author will determine the objectives of corporate security and values of the modern corporation including security management and which measures and activities are taken into consideration by top management in order to achieve successful business operations and achieve the goals and values of the corporation. In the final part of the paper, the author will determine the Program for education and development of the security culture of the employees and the security management in contemporary corporations.

The subject of research are corporations as a modern business entities. The Purpose of research is the importance of corporate security in scientific literature.

**Keywords:** corporation, corporate security, corporate objectives of safety, the values of the modern corporation, security management;

### 1. Introduction

The contemporary world shapes the process of globalization, liberalization and technological development. Globalization leads to the creation of trade blocs, global companies and global economies. Globalization is a connection that transcends the framework of national states, and aims to increase economic growth and wealth (Gerginova, 2015).

The term corporation is defined as the most important innovation of the 20<sup>th</sup> century and is a new organizational form of an enterprise or as the most developed contemporary form of operation of business systems in developed countries with market economies or company capital, which in terms of setting up and operating, comes with issuing bonds or large business company recognized by law as a legal entity, which has similar rights as individual in order to merge and cluster business interests, and as such, are the most common form of business association.

The corporation is the most developed form of social capital. It is one of the legal forms of merging and clustering of business interests and has numerous advantages over other legal forms of companies. The corporation achieved success to cure all weaknesses of other companies, particularly those relating to risk, considering the fact that in the case of the banks where the corporation that owns the bonds loses only the investment value of those bonds.

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A Corporation or company is a legal entity, which often has similar rights as the natural person to own property, to borrow, to sue and be sued. Its purpose is uniting and grouping business interests and is the most common form of business association. This definition was made according to Western theory, where there was a long legislative practice that deals with the rights and obligations of traders. The political economy of the former Yugoslavia uses the term “enterprise” and is treated as an economic category. The corporation is one of the most perfect ways of raising capital, particularly in those sectors in which the nature of the production process requires large funds. Corporations have a complex organizational structure, with a greater number of companies in its composition (Marković, 2007).

Corporate security refers to security issues related to security in companies which is aimed at detecting crime, fraud and offenses in the corporation. This means that with the existence of an effective system of corporate security, the company will be protected from other hazards that can interfere with normal operation of the corporation, the protection of property, and the protection of business owners and employees from various risks and threats which are an integral part of modern life.

Corporate security is constantly involved in the mechanisms of business management, so that it protects the normal flow of business processes, removes acute security problems and creates security conditions for employees. With that corporate security is an integral part of the process that manages business risks within the business entity. More concretely speaking, corporate security establishes plans and implements measures aimed at: the protection of the recipient, the protection of employees in the business organization, the protection of property owned by business organizations, the protection of information and the reputation of the business organization from material damage, criminal activity etc. (Gerginova, 2017).

The following considerations for corporate security are present in literature.

According to Christopher Kjubig and David Brooks, corporate security is aimed at detecting fraud and offenses, studies and real cases of corporate crisis, crime, and other crimes for which the professionals in corporate security should be aware of to ensure effective protection of people, operations and resources (Kjubig, C., & Brooks, D., 2012).

Michael Genser believes that corporate security is adjusted to meet the structural risks for the company, through the application of certain models of simulation for implementing the best security practices in the company (Genser, 2005).

Nicole Detelhof and Klaus Wolf in their compilation of landscaping materials, state that; corporate security is aimed at corporate security responsibility, which is focused on the role of private business in conflict zones. It provides a picture of the types of contribution to peace and to security by transnational corporations (Detelhof, N., & Wolf, K., 2010).

Peter Reid believes that corporate security should provide the necessary balance between the level of security in corporate, business and conventional demands of work complemented with wisdom, and thus offer a radical but inspirational proposal for success. In that direction should be a survey of companies with common sense and logic to better business consistency (Reid, 2012).

Milan Milosević suggests that corporate security according to its definition is integrated because it includes the performance of a number of functions that need to be synchronized. As such, it is a function of the corporation that controls and managing the coordination of all activities within the enterprise, and which relate to safety, continuity and reliability. The existence of an effective system of corporate security protects the company from any threatening actions, establishes the basis for making management decisions, and provides top management access to secret information and forms processes and procedures that prevent protected data from leaving the corporation (Milosević, 2010).

Ivandić, Karlović and Ostojić define corporate security as a strategic function of the company, which aims at realizing the safety of the business success of the corporation, which means: the elimination of all



risks and threats that may affect business activities and achieving business success; reduction of the factors threatening the lowest possible level; business operation in crisis, i.e. overcoming the crisis and re-establishing normal operations (Ivandić V., Darius, K., L., & Ostojić, A., 2011).

## 2. Objectives of corporate security and values of corporation

Each company as a business entity to realize business success is necessary to work in favorable internal and external environment. The operation of modern corporations can be observed in isolation but it is also connected and dependent on a number of circumstances and events influenced by increasing globalization. The operation of modern corporations determines the three elements that exist simultaneously which are: interdependent: favorable circumstances (opportunities), vulnerability (vulnerabilities) and dependence (dependencies).

In modern conditions in addition to meeting the security of citizens and the state, particular attention is given to the achievement of security in corporations, which includes achieving the protection of employees in the corporation, the protection of property owned by business organizations, the protection of profits, business success, and quality of the implementation of business processes in the corporation, protection of service users, protection of information and the reputation of the business organizations of various hazards, risks, property damage, criminal activities etc..

As objectives of corporate security can be determined:

- preventive action to eliminate all risks
- reduction of threatening effects to a minimum extent;
- Business operation in crisis and overcome the crisis and again normal operations.

For all this to happen, it is necessary normative, organizational and functional consistent security system that will enable safer and more efficient protection of people, property and operations of the corporation.

Other objectives of corporate security;

- Repair productivity and boost competitiveness, security risks can be reduced to the lowest possible level and to prepare measures to be taken if incidents occur, dangers and damages.
- The investment of business organization in security systems should be treated as an increase in the total value of the organization, aimed at increasing productivity and continuity of business processes.
- Apart from regular duties, corporate security must be included in the process of introducing new technologies to be able to predict safety risks and to propose measures that would reduce the risks to a minimum (Except technical and corporate security, and represents a strategic issue) (Bakreski, Trivan, & Mitrevski, 2012).

Key values of the corporation are:

- Reputation of the company on the market, its corporate image (reputation), morale and the motivation of its employees,
- The strategic development plans,
- Competitor analysis.

The corporate image of the company and its reputation on the market has a decisive influence on the survival and development of the corporation. One of the most important activities, when it comes to building and preserving the corporate image certainly is assessing the quality of products participating in individual events (Bakreski, Trivan, & Mitrevski, 2012).

Today, in complex conditions of globalization in the world, the corporation is facing various risks and threats such as corruption, organized crime, terrorist activities, different kinds of abuse, embezzlement, fraud and other methods of alienation and appropriation of its property; political crime, general crime and economic crime; (Political crime - terrorism, sabotage, espionage, general crime - theft, severe and armed robbery, robbery, deprivation of motor vehicle, fraud, extortion, kidnapping, fire, economic crime - corruption, negligence, abuse of office powers, embezzlement, receiving and giving bribes, official

secrets). Therefore greater attention is focused on the identification, assessment and management of risks, but also for protection and implementation of defense mechanisms (corporate security), so that the company's strategic goals can be accomplished. In terms of security and protection, earlier in a number of enterprises, there were mainly minor damages that cost disgruntled individuals. Today's companies face the attacks of organized groups aimed at jeopardizing the operations and assets of the business entity. In this terms, they use different ways and means of threat, which can inflict great damage to corporations. To prevent or avoid this, companies are forced to establish effective systems to protect their management processes and business processes (Ivandić, Darius, & Ostojić, 2011).

In order to exercise the efficient operation of the corporation, security management plays an important role. Security management has a role to set goals, plan, organize, control, coordinate and take responsibility for the safe operation of the company. The manager is the one who devises overall system security, coordinates the work of other parts of the company in order to accomplish the objectives of corporate security without doing damage to the work process. Also, security management is responsible for compliance with legal regulations, and the training of security employees (Daničić, Stajik, 2008).

Regardless of whether corporate security activities are conducted by their own organizational units within the corporation or by hiring some specialized persons externally, it is important to analyze the organization of the corporation in the field of security and timely and professional, in order to include relevant scientific institutions to draw up a safety assessment for the corporation, and forecast the possible risks and threats to corporate security, which means that threatening factors must be assessed.

Corporate security employees have the role to observe an early stage of potential threat and effectively prevent any development of security threats that endanger the corporation and its operations. Thus understood corporate security includes: physical and technical protection of the company (Out-Source / Proprietary), Administrative Security (Administrative Security), safety of property and external partnerships (Personnel Security); Personal safety (Protective Security); Fire Protection (Fire Security); Working in Emergencies (Contingency Planning); Information Security; Security Manager (Executive Security); Security of various business events (Event Security); Security contracted works with state structures; Investigations - a program for protection from crime and program for education and development of safety culture of employees (Security Education and Training Program), protection of intellectual ownership, commodity measures and the like. Global corporations started to apply these measures at the eighties of the XX century (Gerginova, 2015).

Security management is necessary to act preventively and to undertake measures and activities in order to monitor, predict and make an assessment of the causes and forms of endangering persons, property and operations of the Corporation to be expected in the future; Specifying responsibilities and powers of the persons working in the company's work around the protection of its vital values such as the company's reputation in the market, its corporate image (reputation), morale and motivation of staff, strategic development plans, competition analysis); determination of the expertise and motivation of the personnel working in the company; Organization and operation of natural-technical provision of all facilities belonging to the company; Protection measures related to the safety and material status of employees, environmental protection, protection against fires, accidents and explosions; Measures to protect the operation of the corporation against all forms of corruption, various forms of abuse, misappropriation, fraud and other methods of alienation and appropriation of its property; Specifying the measures to protect the business and professional secrecy; Specifying the measures related to the control of the movement and residing on external objects and persons in space which belongs to the business entity; Organization and operation of information systems and providing those assets and affairs of the corporation, especially measures to protect information; Harmonization of regulations acts in all areas of security, with national regulations and standards of the EU; Assessment of the degree of endangerment of persons in corporation with activities related to the protection of its vital values (Bakreski, O., Trivan, D., & Mitrevski, S., 2012).

One of the important tasks of corporate security is the *Program of protection from crime* - basically crime that endangers people and property companies is the same that threatens society as a whole, whose holders

are usually motivated by greed, and the desire to harm the constitutional order, security of the state and the socio-economic system. This program is important for achieving effective business operations of the modern corporation. However, the actual shape and volume of crime at the expense of individuals and property companies can not be accurately displayed. This is because the "dark figure of crime" is particularly high among the crimes against property and against official duty. Regarding security of persons and property, of particular importance are crimes against property companies, and other crimes carried out in the business area of the company, institution and organization. These are primarily crimes of general criminality, and offenses against the state, as well as offenses of economic crime.

The pluralism of ownership relations, new forms of threats to persons and property companies in new economic conditions on the one hand and the role of the police and the organization and activity in the system for providing, in turn, further complicate and deepen this problem in the countries of former Yugoslavia (Daničić, 2005).

Accordingly, criminal attacks on persons and property companies are manifested by carrying out various criminal acts of (political crime - terrorism, sabotage, espionage, general crime - theft, severe and armed robbery, robbery, deprivation of motor vehicle, fraud, extortion, kidnapping, fire, economic crime - corruption, negligence, abuse of official position or authority, embezzlement, receiving and giving bribes, indulgence official secrets); and lately frequent dilemmas in relation to computer crime. The most common are cases that fall into the general criminality, but it should be borne in mind that many crimes and their perpetrators in the field of economic crime are never found. Finally, the number of political crimes in practice is not large, but it should be borne in mind that such acts are characterized by the greatest social danger (Daničić, 2005).

For business operations of modern corporations is important to present the risks of computer crime and cybercrime. Computer crime and cybercrime refers to any illegal activity performed with the help of computers. However, Interpol makes a significant difference depending on whether the computer is a target or a means: high-tech – that is high tech crime involves attacks targeted to devices and computer networks. While the other group includes the forms of traditional crimes for which the means of their execution are significantly neglected as a result of technological development.

Based on the conducted analysis, it has been found that cybercrime along with corruption and the migration crisis is a key threat to the business operations of corporations in many countries (E-kapija). In the Criminal Code, many countries of the former Yugoslavia have a special chapter on high-tech crime, describing the criminal activities that belong to this type of crime:

- Damage to computer data and programs;
- Computer sabotage;
- Making and importing computer viruses;
- Computer fraud;
- Unauthorized access to protected computers, computer network and electronic data processing;
- Prevention and limited access to the public computer networks;
- Unauthorized use of a computer or a computer network;
- Making, supplying and giving another means of committing crimes against the security of computer data.

It should be mentioned the document for assessing the risks of difficult and organized crime. It is an international strategic document (eng. Serious and Organised Crime Threat Assessment – SOCTA) dealing with various forms of tough and organized crime including cybercriminal. However, the estimate is still not favorable due to the lack of some important instruments for its use (MUP RS, arhiva).

To ensure proper functioning of the corporation and protection from criminal conduct, it is necessary to continuously take a number of measures and activities by the corporation and by cooperating with the police, the Public Revenue Office and other relevant state institutions. Protection Program of crime includes the following activities (Bakreski et al., 2012):

- Constant monitoring and making analysis of crime.

- Time distance - from the moment of committing the crime to its perception, i.e. detecting a pattern can take a long time, sometimes for months or years. The reasons are: failure by the victim or a third party, insufficient level of cooperation of the business entity and the relevant police services and others.
- Expertise of the perpetrators, who are often highly educated individuals, experts, professionals, entrepreneurs, managers, owners and holders of labor activity, i.e. people who possess specific knowledge and skills about economic performance and legal framework of the activity they are dealing with.
- Complexity - the economy is the specific area of human activity, and labor movements are complex, and therefore economic crime is a specific and complex. The diversity and complexity of the legal framework which determines the framework of operations of business entities logically leads to complicated modus operandi of these offenses.
- Organization - links to high-ranking individuals from the business, social and political life in the community who abuse their position and social influence, make them particularly dangerous forms of crime (the so-called crime of "white tie").
- Mass - economic crime is a relatively frequent occurrence in modern societies, and the offenses in this area as a rule account for about 10% of the total criminality.
- Unlawful gains (or caused damage) were significantly greater than in the case with classical criminality and negative consequences, unless the injured legal entity reflects the economic system, and the wider community.
- Scalability and inventiveness of the perpetrators – economic crime is an area with great potential for innovation, changing the method of execution of the crime, i.e. adapting to new circumstances, changes in regulations and the development of technical tools, which greatly complicates its discovery and proof.
- Property status of the accused, which brings a better chance of Defense (hiring more lawyers, i.e. the possibility of an informal survey of the actual situation or conduct informal "private investigation" for defense).

Finally, we can conclude that the Program for education and development of the security culture of employees and security management in the modern corporation should include:

- Acquiring knowledge that corresponds with modern security situations and provides continuity in the business of the corporation; continuous analysis of the causes and forms of endangering persons, assets and operations of the corporation that should be expected in the future; Assessment of the degree of endangerment of persons performing activities in the corporation related to the protection of its vital values. In today's open market competition, each business entity has the opportunity for business success. At the same time, that entity is vulnerable regardless of whether the dangers to which it is exposed is due to fierce market competition or arise from general uncertainty. Corporate managers in the past have never had such a need and understanding of the threats that their company faces. Unlike the previous period, today no corporation is completely immune to the factors of surprise, that is, "sudden blows". Corporations, if they want to work successfully in modern conditions, must anticipate future events and threats, and top management is obliged to define primary business responses to all challenges. In addition, the operation of today's corporations cannot be observed in isolation, but it is related and depends on a number of circumstances and events conditioned by the globalization trends in the world.
- Define the competencies and powers of the people working in the company works on protecting its vital values (Reputation of the company on the market, its corporate image (reputation), morale and motivation of employees, Strategic development plans, Competition analysis), and determining the state of expertise and motivation of persons working in the company.
- Organization and operation of the physical and technical security of all objects belonging to the company.

- Organization and operation of information systems and provision of persons, property and operations of the corporation, in particular information protection measures.
- Harmonization of the normative acts in all segments of security, with the national regulations and the standards of the European Union.
- Functioning of contemporary corporation in accordance with the BCCM principle (Business, Crisis and Continuity Management) - work, crisis and continuous, continuous management.
- The security manager and other members of the security management are required to possess the knowledge, skills and capabilities for critical, independent and creative solving of various problems related to the behavior of employees as well as with business operations in the modern corporation.
- The ability to assume responsibility for further professional development and improvement and ability for continuous assessment of the business operations of the corporation with the aim of adopting ethically based decisions; capabilities for a professional approach in the process of work with respect to professional standards of work in security organs and services and ethical codes.
- The ability for clear, concise communication (verbal, nonverbal skills and written) with stakeholders, high level of presentation skills using advanced technology, ability to exchange opinions, conclusions and arguments and rationally support them, with both professional and non-professional persons, clearly and unequivocally.
- The ability to assess the impact of internal and external factors that influence positively or negatively on the business operations of the corporation, and to initiate projects to improve the capacities and methodology of the business of the modern corporation.

### 3. Conclusion

Globalization is a connection that transcends the framework of nation states, and aims to increase economic growth and wealth. The term corporation is determined as the most important innovation of the XX century and a new organizational structure of the enterprise or the most developed modern mode of operation of business systems in developed countries with market economies or the company of capital that the funds for the establishment and operation comes to issue bonds or big business company recognized by law as a legal entity, which has similar rights as individual, so merging and grouping of business interests, and as such the most common form of business association. There are different definitions of the concept of corporate security in the literature. Corporate security refers to security issues related to security in companies that is, it is aimed at detecting crime, fraud and offenses in the corporation. We can conclude that corporate security existence of an effective system of corporate security, the company will be protected from other hazards that can interfere with normal operation of the corporation, and the protection of property, the business owners and employees of various risks and threats an integral part of modern life.

It is necessary for each company as a business entity to work in favorable internal and external environment in order to realize business success. The operation of modern corporations can be observed in isolation but it is connected and is dependent on a number of circumstances and events influenced by globalization trends in the world. The operation of modern corporations determines the three elements that exist simultaneously and they are; interdependent: favorable circumstances (opportunities), vulnerability (vulnerabilities) and dependence (dependencies).

In modern conditions in addition to meeting the optimal level of security of citizens and the state, particular attention is given to the achievement of security in corporations, which includes achieving the



protection of employees in the corporation, protection of property owned by business organizations protect profits, business success, and quality of the implementation of business processes in the corporation, protection of service users, protection of information and the reputation of the business organizations from various hazards, risks, property damage, criminal activities etc..

For the efficient business operation of corporations, the role of security management is also extremely important. An important role of security management is to exercise the efficient operation of the corporation. Security management is considered to be an entity of the organization and management system for providing persons and property of the corporation. In his competence is: setting goals, planning, organizing and issuing orders, control, coordination and responsibility for the safe operation of the company. In order to achieve the goals and values of the modern corporation, a normative, organizational and functional consistent security system is needed, which will provide more reliable and effective protection of the persons, property and operations of the corporation.

In the end, the author sets out a program for the education and development of the security culture of employees and security management in the contemporary corporation as an important factor in contributing to the efficient business of the modern corporation.

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Ilija Zivotic<sup>1</sup>

## SERBIAN CORPORATE SECURITY PART OF INTERNATIONAL SECURITY IN 21<sup>st</sup> CENTURY

**Abstract:** Corporate security is an integral part of functioning of modern companies with extensive facilities which are based on significant numbers of employees, customers, and vast electronic communication between demands and support for a stable organizational structure of the company. Modern society has brought new forms of threats to companies security of large companies have much wider importance and can be seen as an important factor of the internal security of the state. With various forms of compromising Big companies brings with it and adequate responses to corporate security that have long overcome technical security form era of the socialist both in technical and personnel terms. The scope of work of modern corporate security has been significantly increased by the emergence of new types of threats to the companies, the most important are following: An organized crime to finance terrorism, money laundering, protection of the patent and technical knowledge due to industrial espionage and facilitating business in high risk countries.

The work will be the primary comparative methods and a critical review that would highlight the untapped potential for corporate security in Serbia. It would also propose measures which according to the author can contribute to improving the situation of corporate security in society and an explanation of its importance of the internal security of Republic of Serbia.

**Keywords:** corporate security, state system, national security, Serbia, internal security.

### 1. Introduction

Although it has not been a long history of presence on the territory of Serbia, corporate security is already defined by several authors. Some of them believe that it is a function of the corporation that controls and manages the coordination of all activities within the business entity concerning security, continuity and security" (Milošević, 2010).

Some scientists want more detailed definition of the term so Ljubomir Stajić states: "corporate security is planned, organized and based on law independent or joint activity and function of the organization, private or professional agencies, aimed at its own protection or the protection of others, as well as adequate protection of face, space, facilities, operations or activities not covered by the exclusive protection of state authorities" (Stajić, 2008).

There are thought, that is important to separate concepts of corporation and corporate security. According to them the basics of the corporation is interest that binds all stakeholders. „But interest is not only retained binding function of membership in a corporation, interest promote the need for protection and as a source of state defined the security corporation" (Marković, 2014).

In contrast there is a very developed practice of corporate security in the United States which is a consequence of the Department of Homeland Security and that the enormous attention paid to the internal enemy. Corporate security in the United States includes the collection of information, data protection, critical infrastructure, risk assessment and more.

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## 2. Development of corporate security in Serbia

For many years not only in Serbia, but in the whole region we were just talked about some simple Physical Security companies. After the eighties of the last century and the arrival of the first video recorder and camera, it became the present name of the Physical Technical Security, which is still in use today and which unfortunately many still equate with corporate security.

In this context, there are up to the first division of private security companies:

- Private military company
- Private Physical Technical security companies
- Private detective agency (Pilipović, 2011:251).

However, there was great resistance from some of the academic community who participated in writing laws, strategies that were supposed to identify potential corporate security so that it remained not identified with all its capacities. They felt that the knowledge that is directly for understanding, systematization, analysis, and performing and practical implementation of measures and activities in the field of security and protection operations of economic system does not need to raise the scientific level (Komarčević, 2011:14).

The result of this approach was the adoption of the Law on Private Security in 2013. The law is very detailed, but for the most part concerned with regulating the rights and obligations of the company, issuing licenses, the control of the operations of private security companies. But he did not recognize the potential of all these companies together, or potential of corporate security.

In addition to this law, corporate security in Serbia relies on the following laws:

- the Law on Health and Safety at Work (Službeni glasnik Republike Srbije, 101/2005)
- Act Fire Protection Law (Službeni glasnik Republike Srbije, 43/2011) also is significant The International Code for Conduct Private Security Service Providers which came from The Montreux Document 2008.

In the chapter, "methodology" in Action Plan which is an integral part of the National Security Strategy of state has been told that strategy is based on the concept of comprehensive cooperation of all actors who can contribute. Also there is a sentence about cooperation: which implies close cooperation of state and non-state actors, including civil society, academia and the scientific community as partners. In this Action plan, of all those involved in corporate security should be recognized as a non-state actors, although not directly mentioned.

Already, the capacity of corporate security is an imposing factor of internal security. Is evidenced by the significant transition of active or retired members of the state security organs in this sector. For now, the focus of the company with a large number of workers and opportunities for Serbian significant capital.

The decisive factor in the formation of high-quality corporate security in Serbia is majority foreign equity in companies that have the sector. The capital carries the experience of many years in different countries. The goal of that work in conditions that are the same or heavier than in Serbia is understanding about the necessity of corporate security sector in the company. This is why those with great success and tangible operating profit in Serbia as opposed to domestic companies in state ownership with many benefits.

## 3. Money laundering

The Action Plan (Nacionalna Strategija za sprečavanje pranja novca i borbu protiv terorizma za period 2017-2021, Beograd, Službeni glasnik 55/15) of the Government of Serbia as part of the strategy of the Republic of Serbia clearly states that money laundering as a criminal phenomenon is a threat that is

difficult to control when it comes to the financing of terrorism. But no mention of cooperation between state security services and the private security sector. In this case, corporate security should be seen as a first line of defense system. Most of money laundering is happening in the private sector. The joint operation of these two sectors would get the number of processed cases. In opposite, state security services will deal only with cases that have already been implemented, in cases when crime is already committed. In the case of joint effects with corporate security, there would be the effect of preventive action.

#### **4. Corporate crime and crime white collar**

Factors affecting the company's employees to carry out fraud or other criminal act that eventually leads to poor business results are the same everywhere and absolutely applicable in Serbia, where some of them are even more significant because of the low standard of living.

Factors contributing towards increased incentives/pressures to commit fraud are:

- financial targets more difficult to achieve 47 percent
- fear of losing jobs 37 percent
- desire to earn personal performance bonuses 27 percent
- bonus not paid this year 23 percent (Parton, 2009: 5).

In many cases, poor business results at the end of fiscal year are just a consequence of many little inside frauds or corporate crimes.

#### **5. Protection of critical infrastructure**

The Serbian Government for foreign policy priority determine Serbia's accession to the European Union. According to this process, there is the privatization of the remaining large economic systems. With partial or complete privatization of state-owned electric utility company EPS and Serbian Railways, a large part of the critical infrastructure at the disposal of the two companies will inevitably sign under the protection of their corporate security members. Those companies will have to develop a serious system of protection of critical infrastructure in accordance with EU Council Directive 2008/114/ES in which it will no longer be able to rely upon state security service. Hundreds kilometers of track, dozens of tunnels that are in a state of war must be used as warehouses or shelters. All these objects will be necessary to list, classify and adequately protect and maintain.

State of Serbia as the seller will have to insist on better protection of critical infrastructure belonging to this company, which is far away from the special units of the army and police and the failure of which could have unforeseeable consequences for citizens. IT security as well as prevention of misuse of money from which the state of Serbia as the current owner have large problems is likely to be the main task of corporate security EPS. The necessity of cooperation of state authorities with the private sector, NGOs, the civil population is best illustrated by the text of the agreement known as the Hyogo framework for intervention which is accepted by the Government of Serbia in the National Strategy for Protection and Rescue in Emergency Situations from 2011 (Službeni glasnik RS, Službeni glasnik, Beograd, br 86/2011, 18.11.2011). At the time of the disaster, we can significantly reduce the consequences if the competent authorities, individuals and communities prepared knowledgeable and equipped with adequate capacities for effective disaster management.

#### **6. Conclusion**

The system of corporate security in the Republic of Serbia has tens of thousands of workers, of which more than half were trained to handle firearms, a large percentage of the fire, and training in first aid. In recent years, a greater number of members has passed courses of treatment in emergency situations. With the arrival of new foreign companies the quality of managerial personnel trained in data



protection, information, risk assessment will also rise. These people are controlled assets worth tens of billions of dollars and control millions of square feet of space, but also a huge open areas.

Corporate security at the micro level of the country can do much for their security. State security service cooperation with private companies and their security sectors can reach data and knowledge thanks to which the scale of security of the whole society can rise to a much higher level. Video surveillance of open space and critical infrastructure facilities, implementation of adequate measures to protect against fire contributes to the overall sense of security of all citizens. Prevention of operations within the company in interaction of state security and corporate security can lead to the prevention or detection of a number of criminal offenses of money laundering, bribery, industrial espionage, mobbing, embezzlement or theft.

Without the cooperation of state bodies with members of the corporate security company it is almost impossible to get information about crimes linked to the improper disposal of toxic waste and endangering the environment.

The reality is that they represent the type of internal army of Serbia, which will grow in numbers. In order to use this potential for the benefit of all citizens it is necessary for the management of corporate security to be treated as allies and associates not to look at them as a competitor in the security system of the Republic of Serbia.

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## CONSTITUTION AND TRANSFORMATION OF DIRECTORATE FOR SECURITY AND COUNTERINTELLIGENCE (UBK) THROUGH ITS HISTORY

**Abstract:** Republic of Macedonia Ministry of Interior Affairs (MVR) Directorate for security and counterintelligence (UBK) is one of the key institutions in charge of security in Republic of Macedonia (RM). This is why it is of essential importance to understand the way in which this institution has operated from its constitution to present day. Explaining this will encompass all of its transformations as well as its practical works out in the field of operations. Focus is also placed on the UBK hierarchy and its operations directed towards the wellbeing of RM interior security. One of the most important reforms of UBK is the one that yet to come. What this means is creating and operating under a strategy which will make this institution much more transparent and approachable for the civilians. What is being suggested is that all operations of this Directorate become similar to those of the more modern western intelligence agencies who in a very transparent way publish their operations on their very own web sites. One possible way of implementing this form of UBK transformation is creating a subdivision of the existing MVR site. This subdivision website would post information pertaining to the operations of UBK and information of interest to the general population, all of which would be in accordance with the Law for classified information. The main goal of this effort is to make UBK's everyday efforts more efficient and more transparent. Having in mind everything state above it can be concluded that if in the future we want to achieve full synergy between several agencies and directorates whose jurisdictions intertwine and overlap (UBK, Intelligence Agency (AR), and Military service for security and intelligence (VSBiR)) then those institutions must put in a better team effort. This would mean greater exchange of obtained information with the goal of more efficiently conducting the tasks and responsibilities at stake.

**Key words:** Directorate for security and counterintelligence, transformation, improvement of operations, transparency.

### 1. Introduction

In accordance with the Law for interior affairs from 2014, in accordance with article 17, institutions operating as part of the MVR are: Bureau for public safety (BJB) and **UBK**, the latter of which will be topic of interest for this paper.

As part of their jurisdictions, the systems for state security undertake activities directed towards protection from espionage, terrorism, and all other activities that threaten to harm or take down democratically established institutions as prescribed by the RM constitution. Their activities are also directed towards protection from more severe forms of organized crime.

Directorate is ran by a director who independently runs the execution of the UBK affairs, and answers to the RM Minister of Interior Affairs, and the Government of RM, who in the first place awarded him a four year mandate.

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In line with suggestions made by the UBK director, the minister adopts acts for organizing and operating as well as the systematization of the job positions within the directorate.

As part of performing their duties within their jurisdictions, employees of the Directorate have the right to gather data and information from citizens, institutions, companies, who are obligated to allow these directorate servants uninterrupted execution of their duties.

## 2. Establishing and development of UBK

On the 13th of May, 1944, in Drvar, former Yugoslavia, came with the forming of the Department for protection of the people (OZNA) as only security service. OZNA operational directions led to creation of intelligence and counterintelligence protection of the armed forces and institutions resulting out of the people led freedom fighting (1941 to 1945) and the later fights against the quisling Ballist troops and the terrorist gangs.

Soon after, individual OZNA departments were formed for each of the republics encompassing federal Yugoslavia. In Macedonia, OZNA was formed in July of 1944, in the village of Ramno, Kumanovo. On 31<sup>st</sup> of January of 1946 OZNA moved from jurisdiction of the Ministry of defense, under jurisdiction of the Ministry of interior affairs. This led to reorganizing and creation of the Directorate for state security (UDBA). With its intelligence and counterintelligence activities UDBA protected the territory of Federative People's Republic of Yugoslavia (FNRY), unmasks illegal operations and groups, faces remains of quisling and other gang formations, as well as more drastic forms of economic crime.

In 1966 came the forming of the cornerstones of the Service for state security (SDB) which worked on unmasking and deterring activities directed against state security and subverting or taking down the systems established by the Constitution.

After RM independence, SDB continues operating as part of this republic's Ministry of Interior Affairs, and works on fulfilling tasks predetermined by the Constitution and the Laws of RM.

In 1955, with reorganizing of its running bodies, SDB was renamed into The Board for security and counterintelligence (DBK), and in 2000, changes in the Law for organizing and running state administration led to DBK restructuring into Directorate for security and counterintelligence (UBK), which still continued performing tasks in connection with the system of state security. (www.mvr.gov.mk, 2016)

## 3. Intelligence – reconnaissance activities

In his book "National Security", Professor Mitko Kotovcevski from the University of Saint Cyril and Methodius in Skopje, states that intelligence – reconnaissance activities directed against our state are implemented under pre-established scenarios for the purpose of gathering much needed data about RM and its running institutions. Topics of key interest are the situations in areas of fundamental importance for the motherland – interethnic, cultural, military-police, economical, and political characteristics, while special interest is placed on the developments within the Army of Republic of Macedonia (ARM), and its interests for obtaining modern systems of armament. Intelligence – reconnaissance activities are conducted by outside and inside elements, combinations of these two, as well as intelligence services of certain states, representatives of which, could be infiltrated through foreign diplomatic embassies operating in our country, non-government organizations, humanitarian organizations, and even some structures of the United Nations (UN).

Representatives of the foreign military-intelligence agencies are above all focused on gathering data about the armed forces of RM, their structure, readiness and mobility of the units, or to summarize complete readiness of the entire defense system of RM. What is also of great importance for the intelligence actions are the operations of certain structures of paramilitary and secessionist forces. As part of certain political parties, at certain stages of development of the society, these extremist structures strive for secession and total disobedience for the state institutions. Their goal is to force functioning of parallel structures on a

certain territory of the state where they pose a majority. As part of final planning and implementing of possible terrorist actions and military activities of limited character, primary goal of the intel research of these structures is also ARM and MVR.(Kotovcevski, 2013:235)

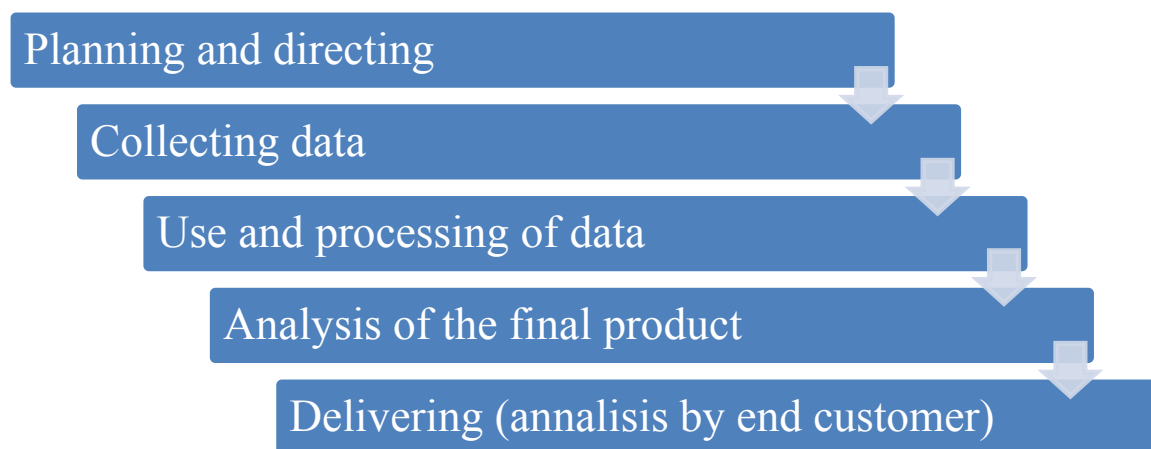
#### 4. Intelligence cycle according to CIA

According to Proffesor Kotovcevski (presented in the book “Intel Basics”) the intelligence cycle of obtaining information includes a certain portion of altering of data during their presentation as part of the final intelligence product which is being presented to the end customer. Intelligence cycle is a never-ending process due to the fact that ending one process means beginning of another. To begin with, the goal of the intelligence cycle is to permanently provide information which needs to reduce the amount of surprise the state and the nation may face. This minimizes the risk and helps create total overview in times of complex situations.

Resulting estimates of the final intelligence product do not represent the only way of predicting the future. They are just part of a trove of precisely analyzed conclusion about the most likely course of events which are of key importance for the security, future, functionality, and perseverance of any nation and state.

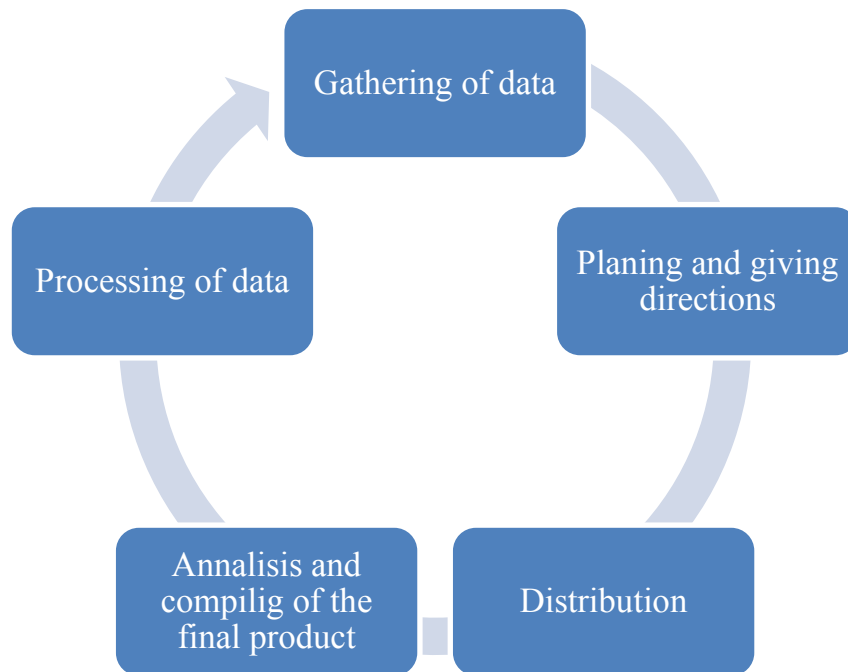
Estimates and knowledge gained from the intelligence process gives political actors great amount of information about future developments, which in its self is of vital importance for precise analysis of the current critical problems, and those of the future which is filled with traps, uncertainties and expectations. The basic stages of an intelligence cycle are presented in **picture 1**. (Kotovcevski, 2013: 60)

Figure 1: Basic phases of intelligence cycles



With different intelligence services - agenciesthis process varies, and the way this process is viewed by the United States (USA) Central Intelligence Agency (CIA) is presented in **picture 2**.

Figure 2: Intelligence cycle according to US CIA (Kotovcevski, 2013:62)



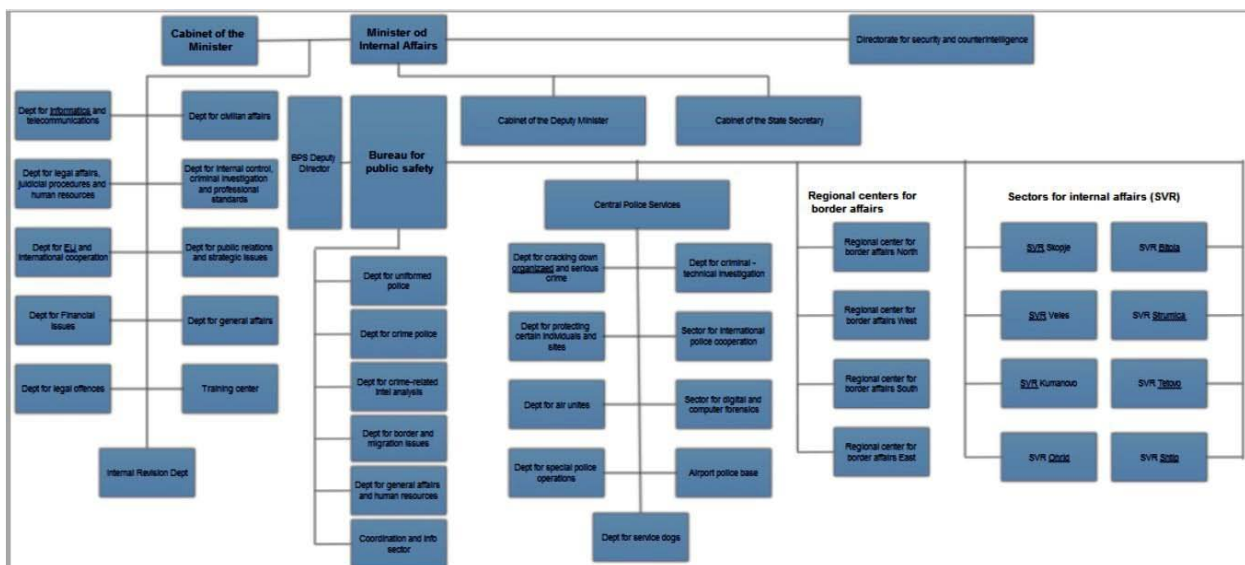
## 5. Organizational structure of Republic of Macedonia Ministry of Interior Affairs (October 2015)

Republic of Macedonia Directorate for security and counterintelligence (UBK) operates within the MVR. According to MVR hierarchy UBK is under direct control of the Minister of Interior Affairs, and as such answers directly to him and the Government of RM (article 25 of the Law for interior affairs).

With the goal of better visual presentation of the way the Macedonian Ministry of Interior Affairs operates as well as its organizational setup and the positioning of the UBK, what will follow will be a organogram of this ministry's hierarchy, which can be also found at this ministry's web page. (see figure 3) (Republic of Macedonia Ministry of Interior Affairs, 2015)



Figure 3: Organogram of the Republic of Macedonia Ministry of Interior Affairs



Institutions in charge of creating and implementing national security policy

*(Republic of Macedonia Ministry of interior affairs, Directorate for security and counterintelligence as part of Republic of Macedonia security systems, 2016)*

In the Republic of Macedonia, according to adopted laws and handed out jurisdictions, there are several institutions which share responsibility over the System for national security policy:

**1. Parliament of Republic of Macedonia** is in charge of adopting laws pertaining to the security and defense issues;

**2. President of Republic of Macedonia** is the supreme commander of the Macedonian security forces and is also President of the Republic of Macedonia Security Council;

**3. Government of Republic of Macedonia** proposes laws and other regulations from the sphere of security and defense and is in charge of their execution;

**4. Security Council**, discusses issues in connection with security and defense and offers the RM parliament and government draft proposals.

**Picture 4** is a representation of the legal framework within which the security system must operate.

Figure 4: Legal framework within which the security system must operate.



### **Jurisdictions of Directorate for security and counterintelligence**

Within the state security system UBK executes assignments pertaining to protection against:

- ✓ Espionage;
- ✓ Terrorism and other violent acts directed against democratic institutions established by the Constitution of Republic of Macedonia;
- ✓ Heavier forms of organized crime;

### **Espionage**

Timely unveiling, stopping, and protection against:

- Activities by foreign intelligence services which may harm national security or economic stability of the state;
- Unauthorized access to classified information further use of which may threaten national interests and security of Republic of Macedonia;

### **Opposing terrorism and protecting constitutional establishment**

Timely revealing and stopping of violent acts of political, religious, and/or ideological nature:

- Terrorism;
- Extremism;
- Protection of very important people (VIP);

### **Higher forms of organized crime**

Coordinated and complex measures and activities coordinated with other state institutions with the goal of preventing and opposing all forms of organized crime.

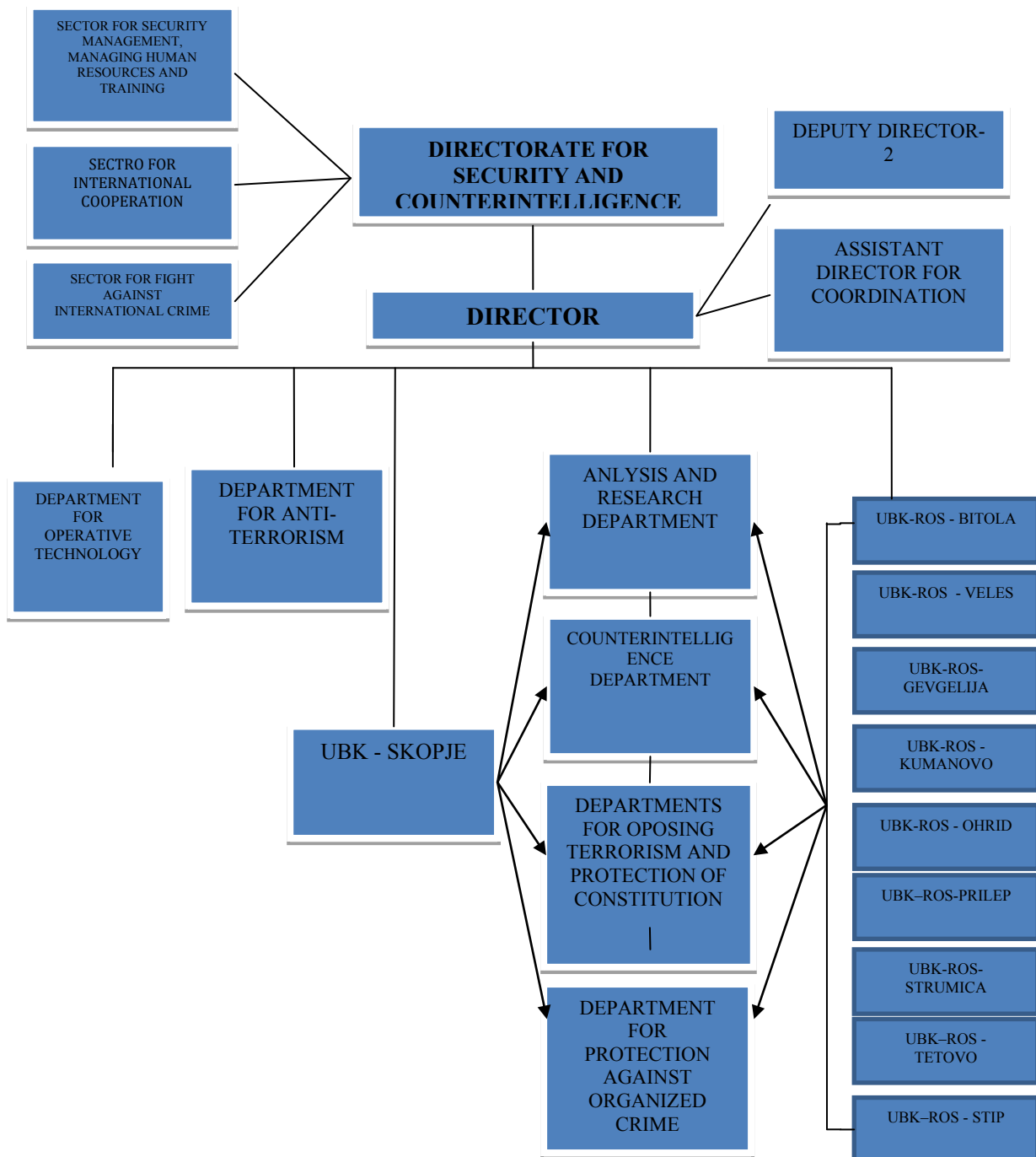
**Conventional crime** – Smuggling of immigrants; Smuggling and illegal trading of weapons, drugs, people, archeological finds, falsifying of documents, foreign currency, and vehicles;

**Economic-financial crime**– Money laundering; (*Republic of Macedonia Ministry of interior affairs, Directorate for security and counterintelligence as part of Republic of Macedonia security systems, 2016*)

## 6. Organizational setup of UBK

Fifth figure shows clear representation of the organizational setup of UBK which de facto means opening of this institution before the citizens

Figure 5: Organizational setup of the Directorate for security and counterintelligence



*(Republic of Macedonia Ministry of interior affairs, Directorate for security and counterintelligence as part of Republic of Macedonia security systems, 2016)*

## 7. Jurisdictions and organizational units composing UBK

**Department for security management, managing human resources and training** conducts legal affairs, creates and conducts strategies and regulations regarding field operations, processes financial issues, manages human resources, as well as training in the field of security and counterintelligence.

**Sector for international cooperation** conducts activities in the field of international cooperation with the foreign security services both on bilateral and multilateral level, coordinates exchange of information which are in regards to safety and can lead to preventive actions, as well as conducting of protocol activities for the direct needs of the Directorate.

**Sector for fight against international crime:** based on guidance from the director this sector conducts coordination of activities of the operative part of the Directorate, all of which depending on the level of the security threat, and undertakes activities for conducting concrete plans.

**Department for counterintelligence** conducts and executes operative actions with the goal of countering actions by foreign intelligence services (their agents, centers) and conducts counterintelligence support and protection, with the goal of protecting classified information.

**Department for protecting constitutional establishment and counterterrorism** coordinates and executes operative actions with the goal of protection from all forms of threat against the constitutional establishment including all forms of terrorism and other violent means of action, conducts operative-preventive protection of VIP and sites as well as security checks of people for the needs of the Ministry of Interior Affairs, and other state institutions.

**Department for fight against more severe forms of organized crime** coordinates and executes operative assignments for the purpose of preventing heavier forms of organized crime directed against the democratic institutions and constitutional establishment of Republic of Macedonia, and the security of in the state in general.

**Department for analysis and research** conducts identification of situations and developments which can pose a threat for the security of the state, and also analyzes the magnitude of the threat directed against the strategic and national interests.

**Department for operative technology** conducts operative-technical support of organizational units which the Directorate is composed of and which conduct security and counterintelligence activities for the purpose of protecting the constitutional establishment of the republic, protect VIP, fight heavier forms of organized crime. This department also works on maintaining the electronic and computer equipment used for the above mentioned purposes.

**Department for antiterrorist protection** executes operations directed at preventing and managing terrorist threats including preventive protection of sites and large gatherings, as well as antiterrorist checkups revealing and deactivating of explosive ordinances.

**Department UBK-Skopje** conducts operations in the field of counterintelligence, protection of constitutional establishment, countering terrorism and heavier forms of organized crime on the territory of the city of Skopje. This department also coordinates activities with the goal countering situations which can have security implications over the broader territory of Republic of Macedonia, thus bringing functional unity in fulfilling Directorate goals.

**Regional operative sectors (ROS)** Bitola, Veles, Gevgelija, Kumanovo, Ohrid, Prilep, Strumica, Tetovo, and Stip are in charge of affairs in the area of counterintelligence, protection of constitutional establishment, fight against terrorism and heavier forms of organized crime for the respective region in which they have been formed.

*(Republic of Macedonia Ministry of interior affairs, Directorate for security and counterintelligence as part of Republic of Macedonia security systems, 2016)*

#### 7.1. Personnel in charge of operations

Deputy Directors, assistant directors, coordinative assistant directors, head of sector for international cooperation, head of sector for fight against international terrorism, all answer directly to the Director.

Heads of the regional operative sectors Bitola, Veles, Gevgelija, Kumanovo, Ohrid, Prilep, Strumica, Tetovo, and Stip answer to the Director and the coordinative assistant director.

When it comes to specific situations the heads of the regional operative sectors Bitola, Veles, Gevgelija, Kumanovo, Ohrid, Prilep, Strumica, Tetovo, and Stip also answer to the corresponding assistant director (counterintelligence and constitutional establishment, countering terrorism, or heavier forms of organized crime).

*(Republic of Macedonia Ministry of interior affairs, Directorate for security and counterintelligence as part of Republic of Macedonia security systems, 2016)*

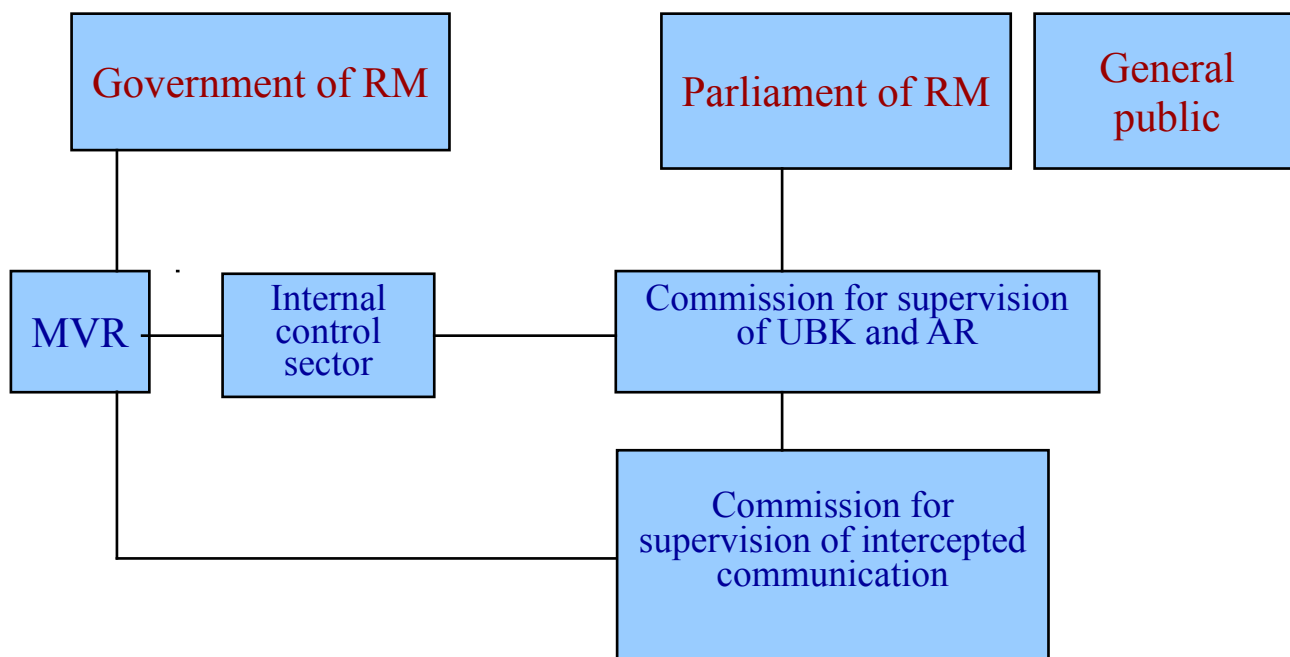
#### 7.2. Supervision of activities conducted by UBK

Supervision of UBK activities can be divided in three portions:

1. Government of Republic of Macedonia conducts supervision through the Ministry of Interior affairs, which within its self has a Sector for internal control that answers directly to the Minister of interior affairs;
2. Second filter is the Parliament of Republic of Macedonia, represented through two of its commissions: Commission for supervision of UBK and AR affairs, and Commission for supervision of intercepted communications;
3. Third, and the past decade, maybe the most important filter is the general public;



Figure 6: Supervision of UBK activities



*(Republic of Macedonia Ministry of interior affairs, Directorate for security and counterintelligence as part of Republic of Macedonia security systems, 17.3.2016)*

## 8. Institutions in charge of security issues: MVR-UBK, AR, VSBiR and J2. Current situation and suggestions that can lead to improvement

As part of the state security system of the state the founding of the intelligence and security community in Republic of Macedonia started with the adopting of the law for interior affairs in 1995. Back then the Service for state security which operated as part of MVR and was conducting intelligence and counterintelligence operations was split into two separate services.

This law led to the creation of the **Board for security and counterintelligence (DBK)**, which is now the **Directorate for security and counterintelligence (UBK)**, which remained operating within the MVR, and was awarded functions regarding internal security, while a special law, from that very same year, led to the creation of a separate stated institution called the **Intelligence agency (AR)**.

Intelligence agency conducts operations of foreign intelligence and is subordinate to the president of the state.

Law for defense also addresses issues of intelligence and counterintelligence nature. This led to the Ministry of Defense creating the Military service for security and intelligence (VSBiR) with jurisdictions of planning, organizing, and conducting intelligence, and counterintelligence for the purpose of protecting the forces of the Ministry of Defense and the ARM. Additionally, as part of the ARM, there is also the **J-2** section, which is subordinate to the VSBiR.

These three services (UBK, AR, VSBiR) compile the security-intelligence in Macedonia. Their founding mission needs to be team coordinated activities and exchange of information.

When talking about security-intelligence community we refer to a “community” and not a “system” or a “subsystem” of the state security system, because the basic problem we are facing is lack of

coordination in its efforts. In Republic of Macedonia there is no special body which would coordinate the security services, such as the case in Republic of Serbia and republic of Croatia.

Coordination of the security-intelligence community needs to be done within the crises management system, through the Evaluations Group, where heads of services would meet. Still in practice, this practice does not exist for multiple reasons.

In the past the basic problem was the “political gravity” that the former director of UBK had in comparison to the other heads and directors.

Second problem is the fact that the Evaluation group does not consist only of heads of these services, so they do not feel “comfortable” enough to exchange sensitive information.

Next problem is the fact that there is no in charge institution with jurisdiction to compile all the different reports of all the services into one document and as such presented before the in-charge institutions. Although the security-intelligence services are functionally dependent of one another, they are not connected between themselves either horizontally or vertically. It is true that they cooperate at an informal level but this is not enough and is the basic weakness of the way the system works right now.

There is also the problem with the Intelligence Agency (AR) which as a relatively new institution within the security-intelligence community has still not assumed its rightful position within the state security system. According to one survey-research results, this agency faces multiple problems.

The first problem comes due to the overlapping of certain jurisdictions between AR and UBK.

The second problem is the qualification of employees within the agency itself.

The third problem lies in the way this agency is positioned within the system. The main problem here is the fact that it is the President of the state that appoints the director of the agency, while systematization and financial portion of its operations is covered by the government.

In a situation like this, the government wants to limit AR dealings. This is especially so if the Premier and the President come from different political options. When we have such scenario the government reduces the funds that this agency gets. On the other hand because of the fact that the director is being appointed by the President of the state, there is a chance he might first get the information coming from the agency, and in return the UBK information might not be passed on to the president of the state at all.

When it comes to VSBiR there is the open issue of the parliament control over this service. Jurisdictions of the parliament commission for supervision of work of UBK and AR do not state that this commission can conduct parliamentary control over VSBiR, or that this service has an obligation to supply the parliament annual report regarding its affairs. Still this type of supervision can be implemented indirectly through the Commission for defense and security issues.

In the past, within the state security-intelligence community there was often “battle for prestige and rivalry” between the two civilian security-intelligence services. This had a negative impact over the quality of their work.

It seems that as an “older brother” UBK wants to deal more with intelligence activities and as such overstep into the jurisdictions of the AR. As a result of this, the intelligence service was inferior over the counter-intelligence one. This also reflected upon the quality of service of these services and their overall product.

This condition resulted in the primary users (president, premier, ministers of defense, interior affairs, and foreign affairs) getting diametrically different information about same event or situation, or with similar estimates, but in different periods of time.

All of this brings us to the conclusion that there is a need for a doption of a law which would define the cooperation and the jurisdictions between the different subjects within the state security and intelligence community. It is only then that the president, prime minister, and other in-charge state officials, will all have the same information about the situation in the state at the same time.

When it comes to the scandalous wiretapping incident which included following of communication of large number of officials in Macedonia, the report made by Pribe concludes that the tapping was done “illegally over the course of several years, and as such are not part of a law or judicial proceeding.”

This report also states that if taking in consideration the quality and magnitude of the made tapes, it can be concluded that they were made in the UBK offices. Content of many of the tapes indicates of illegal activities and misuse of power by many high-ranking government officials.

Internal and external supervision over the intelligence services suffer multiple flaws. These flaws are a result of the lack of activities by all supervision institutions. This in its self is a cause for major concern, states Pribe's report. (*Nova Makedonija, Plusinfo* 2016)

## 9. Conclusion

In the period to come the Directorate for security and counterintelligence (UBK) has a strategy according to which it plans to be more transparent and approachable towards the general population. UBK wants its course of action to be similar to that of CIA which very transparently publishes its operations on its website. In order to achieve this UBK supports opening of a sub-site at the MVR portal. This site would contain all UBK information which is not deemed as classified, thus making UBK more efficient and effective, while at the same time the general public would have a greater overview into its operations.

From everything stated up above it can be concluded that in the future, for the sake of more effective and efficient operating, UBK and the other security services (AR and VSBR with J2) must work more as one team, because only this way will they improve their work results.

It also needs to be pointed out that in spite of all political turmoil in Republic of Macedonia, the UBK is successfully doing its job, especially when it comes to the fight against terrorism and the heavier forms of organized crime. This is due to the fact that UBK has professionals who are highly dedicated to performing their duties and maintaining the constitutional establishment of our state by opposing all forms of terrorism.

Latest example of this is the case with the migrant crisis in 2015, when about one million migrants transition through our state, some eighty of who participated in the battlegrounds in Syria and other hotspots in the Middle East. About six percent, or in total more than a thousand people from the Balkans participated in the war in Syria and have returned to their home countries, while several thousand (about three thousand) have returned to their home countries on the territory of the EU. In spite all of the risks our country faced, UBK and the rest of the security services managed to successfully deal with the migrant crisis. A lesson needs to be drawn from all of this and in the future period UBK and the rest of the security services need to vigilantly follow the situation due to announcements of future migrant crisis and the risks that may come to our country with this development.

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Seid Hadzic<sup>1</sup>

## MERGING AS A NEW WORLD TREND IN BUSINESS

**Abstract:** Development of the economics based on opportunities and new trends in the business. This work has solely focused on the merging in business such as the current world trend and on an intention to divide the business risk with a distribution of profits. The direct influence of merging in business could have an effect on the improvement of the liquidity of a domestic economics and on the development of some failed economy. How much merging is interesting for investors, what reaction of domestic financial market and possible positive effects of practicing merging are, will be presented through theoretical presentation and practical instances.

**Key words:** merging, clusters, financial system, financial instruments, capital market, bonds, shares.

### 1. Introduction

Today, merging of production, science and education is a necessary condition for increasing competitiveness. The conquest of new markets and new technologies, the creation of new workplaces, without the involvement of supporting institutions becomes unfeasible. An economy that wants successful development and good business results must provide conditions for creating solid production links with scientific research and educational institutions. We have to note that over a longer period of the twentieth century, economic policy focused on macroeconomic stability as a key guarantor of development and prosperity. Structural changes have led to globalization, transformed society into "informatics" and the economy based on knowledge. In that sense, we can say that successful macroeconomic policies are only a prerequisite, but not enough guarantees for faster development. However, in the last two decades, the importance of microeconomic conditions is increasingly emphasized. From this, my motive is also to analyze the phenomenon of merging, which is quite abstract in Balkan region, but less in the rest of Europe and the world.

### 2. Merging through clusters

Clusters represent new models of the development of entrepreneurship in contemporary conditions dominated by two mutually opposed tendencies and strategies in global economic trends, especially in developed countries. On the one hand, we have a trend of concentration and capitalization in the last phase of development of transnational companies since the 1980s, through mega-mergers and acquisitions by large companies, while on the other hand we have a trend of incentives for entrepreneurship in small and medium enterprises in order to improve and maintain their competitiveness.

Albert Marshall, founder of the English Neoclassical School and pioneer of Micro Economic Theory, is the first economist to write a detailed study of clusters in his book "Principles of Economics", which he called "industrial areas" or "industrial districts".

In his famous discussion "Competitive Advantage of the Nation," 1989, Porter pointed to the importance of clusters to increase international competitiveness in a global strategy. During the 1990s, he innovated

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and expanded his concept of the cluster, advocating the view that they constitute the basis of a "new competitive economy," emphasizing that their importance is increasing the competitiveness of enterprises in the domestic and international markets, analyzing the contribution of the government and universities to increasing competitiveness, economic development and prosperity. From Porter's analysis of international competitiveness, it came to the conclusion that the leading export companies do not function in isolation, but as part of a wider group of complementary companies, whose successful international representatives. These groups of affiliated companies are called clusters, and Porter saw in them the sources of the competitive advantage of large exporter. Productivity growth was also noticeable, based on the exchange of information and the use of common resources, as well as the growth of innovation based on the rapid exchange of ideas and technological knowledge.

"Clusters represent geographical concentrations of interconnected companies, specialized suppliers, service providers, but also dealing with related activities and relevant institutions, such as Universities, standardization agencies and professional associations that compete in and interact in certain areas." (Porter, 2008)

In addition, the companies merged in the cluster can achieve greater impact on policy makers and authorities, central, regional and local, in the direction of acceptance of their proposals for measures to increase efficiency, encourage the development of protection of domestic products, better conditions of financing, resulting in the progress of domestic companies both on the domestic and international market.

By joining clusters, small and medium-sized enterprises imitate the work and behavior of large enterprises, become their associates, and often competitors. In mature and developed clusters, there is a dense network of customers, retailers and business associations that can have, in addition to regional and international significance.

In many countries cluster development have been accepted as a basic economic development strategy. Contemporary business is based on speed, quality, flexibility, innovation, connectivity and building a critical mass of capital and productive, service potential. This new style of business requires a team approach at the local level - an integrated cluster approach.

Highly developed countries have largely accepted and developed the concept of clusters. The concept itself seems very simple and attractive to use: regions can increase their competitive advantage if companies and institutions working in related fields find an optimal way of linking, using the synergistic effect of their combined experiences to jointly overcome their competition.

The clusters of the common forces of all their members provide the conditions and contribute to the faster economic development of the region in which they are located, all through the purchase of the largest part of the input from suppliers from their environment or region, by employing a skilled workforce with contemporary knowledge, tightly linking with innovative and developmental-research centres, entrepreneurial-oriented to banks and investors.

### **3. Financial markets in our country and region**

How much a country can be considered such as developed one is shown the state of its financial system. Different institutions of the financial system of a country help to efficiently channel funds from individuals who have excess funds to those who lack these funds and which support economic growth. In general, all the financial seekers of countries are created through two systems, which are market-oriented and bank-oriented. The basic rule of application of a financial system model in one country is the application of a system that corresponds to the actual state and needs of the country that implements it. There is a great chance to innovate the system and monitor the awareness of the trend of the merging in business through the Islamic way of operating banks or issuing bonds. Applying this system, would significantly change the practice and principle that the loan is the most represented financial instrument

because the corporate and municipal bond market is not sufficiently developed in Serbia and in the region. This level of development is an insufficiently strong basis for further economic development of the country. Types of Islamic bonds may be: Mudareba, Idžara, Selem, Muedždžel and Istisna (Bićirović, 2014).

Mudareba bonds are specific because they have a certain nominal value and maturity date. Mudarib in this mudarib is a company, while investors are those who buy bonds-rabbul-l-mal. The company (mudarib) has the exclusive right to manage associations, while the investor (rabbul-malon) is the owner of the property, which will be purchased by issuing mudareba-bonds (Bićirović, 2014).

The condition of the creation of a idžara-bond is a contract for it. In the case of a idžara, the owner of the item retains all the rights over the facility and he only leases the benefit to the lessee.

With selem-bonds, one producer of one wanted substitute, but who can sell for deferred payment for money, sells his goods to investors. Investors give money to the manufacturer for ordered products in advance. Since the investor has a claim in physical form, he can sell his selem-bonds even before the maturity date.

Bej muedždžel is selling one of the goods, which is not money, to a deferred payment at the same or higher price than if the goods were sold immediately for cash. When goods are sold at a higher price, the seller takes into account the repayment period, and therefore increases the price. The longer the payback period, the price is higher.

Istisna' represents another type of purchase, where one item is traded before it is produced. In the case of Istisna'a, the client orders the manufacturer to produce a particular product in a particular form, where it is the responsibility of the manufacturer to organize the required workforce and material.(Zuhayli, 2003).

#### 4. Conclusion

On its path of transition in our and all the countries in the region, the financial market in certain aspects still has a limited level of development. The bank-centric financial system is the only one developed and experts consider that it is too large for such small markets with the note that foreign banks with close to 80% participated in the net assets of the banking sector of all our countries. From all of the above, it can be concluded that the financial system and the financial market of our countries and in the region is characterized by insufficient development and insufficiently strong basis for further economic development of countries.

We see a great chance for the recovery of the economy precisely in the merger, clustering of all our economic, educational and professional capacities. Then, through the development of the financial market in terms of stocks and bonds, and the special attraction makes the Islamic way of doing business bonds. These bonds are intrusive for investors by the fact that a number of bonds can be traded at a free price in the secondary market and that offer a relatively safe profit to the buyer. But the investor in these contracts may also have a loss.

It is particularly important for us to note that "Islamic bonds" are based on the merging, co-operation, partnership among investors that arise when securitization of a contract is carried out.

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