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Original Scientific Paper

CIVIC AND POLITICAL PARTICIPATION IN TRANSITION COUNTRIES: THE CASE OF SERBIA

UDC 347.471:329(497.11)

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Abstract. *The purpose of this paper is to explore the dynamics of civic participation in Serbia, as well as to test its relevance for the level of citizens' political involvement. For estimating the impact of the membership in civic associations on political party membership and non-conventional types of political activism, the non-parametric analyses of variance test, followed by post hoc testing has been employed. The main findings of the analysis suggest that civic participation is a significant predictor of political activism of Serbian citizens. The results of the empirical procedures indicate significant differences in the degree of political participation, based on the levels of citizens' engagement in community organizations. The implications of the study could serve as the grounds for designing policies aimed at strengthening civic society and creating incentives for citizens' active involvement in political life.*

Key words: *civic society, political participation, transition, democracy*

JEL Classification: P26, D71

INTRODUCTION

Civic society represents a part of the public space between the family and the state (Morje, 2003), essential for the credibility of institutions and articulation of citizens' demands, as well as a mechanism which provides accountability of politicians. Low levels of electoral turnout, lack of trust in political institutions and declining levels of civic engagement are perceived as a serious sign of the erosion of democracy.

For transition countries, that have implemented extensive political and economic changes in the last few decades, civic participation is of essential importance. This region has put much effort on reforming formal institutions, while the informal dimension of

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democratic consolidation had received much less attention. The first phase of the transition from non-democratic to democratic regimes in Central and Eastern Europe consisted of liberalization and the demise of authoritarian system, followed by democratization and social modernization. After the institutional base of a democratic system was created, the next necessary step was democratic consolidation, as the final step in the transformation process, in order to embed democratic values and practices into the citizens' political culture. The gap between formal and substantive democracy in Central and Eastern Europe is often explained as the result of the legacy of authoritarianism and the weakness of democratic institutions.

There is a rising concern regarding the quality and magnitude of citizen participation throughout the transition countries. Numerous research studies imply that civic participation in these countries is low compared to the level recorded in Western Europe and North America. The weakness of civic society and low levels of citizens' participation has often been linked to low levels of social capital and the legacy of centrally-planned economy. At the beginning of the transition, it was expected that reforms will lead to the increase of civic engagement. Instead, many authors claim that we are dealing with the *civic demobilization*, and that civil society which initiated extensive political and economic changes at the beginning of the transition is on the downward path. The assumptions regarding passive civil society and political apathy throughout the region and the hypothesis about weakness of post-communist civil society have not been conclusively confirmed. Also, despite common communist legacy, there are significant differences in the development of civic society in different countries during transition so that the post-communist civil society could not be referred to as a singular phenomenon.

This paper explores the dynamics of civic and political participation in Serbia in the aftermath of the transition reforms. Patterns of political participation will be studied in relation to the intensity of civic engagement in order to establish the relevance of civic participation for explaining citizens' involvement in political activities, and consequently, its role in fostering democratic consolidation.

1. LITERATURE REVIEW

Over the last decades, there is a growing academic interest for the economic analysis of civic engagement. The 2009 Nobel Prize for Economics, granted to Elinor Ostrom, rewarded research on civic participation. Ostrom (1990) argues that common pool resources can be governed sustainably in a community. Although relatively new in economics, the analysis of civic participation has for a long time occupied the attention of scholars in the social sciences. Referring to his journey across the United States during 1831, Alexis de Tocqueville described in detail the richness of civil associations that support American democracy and economic power (de Tocqueville, 1835, 1840 [1990]). Interactions within voluntary associations are a kind of, as he puts it - "social glue" - that connects Americans, as opposed to formal relations which are based on traditional and hierarchical relationships which have been observed in Europe. Some sixty years later, the French sociologist Emil Durkheim dealt with social relationships as a source of social order (Durkheim, 1984 [1893]).

It seems that rising interest in this field in the last few decades is caused by declining electoral turnout, lack of trust in political institutions and declining levels of civic

engagement (Putnam, 2000). Putnam was among the first authors to express concerns about the decline of civic engagement. According to Putnam, one of the factors that causes differences in the efficiency of local governments and regional economic performances in Italy are differences in social structures. Part of the economic success of Northern Italy (compared to the southern part of the country) is related to civic associations, which instill in their members a sense of cooperation, solidarity and general interest (Putnam, 1993, p. 89-90). Effective governance draws (relies) on the tradition of civic engagement and civic networks. In the regions characterized by dense horizontal social relations, based on trust and common values, participation in voluntary organizations and associations is more intensive and social capital is highly developed. Regions with successful government and efficient economy are characterized by horizontal relationships that foster and encourage civic engagement. Putnam considers that any form of civic engagement is beneficial for society and tends to correlate with a functioning democracy and market economy (Putnam, 1993). The key problem is that virtually all forms of political and social engagement are on the verge of decline in the USA since 1940s, meaning that American democracy is eroding from the inside (Putnam, 1995; 2000). Similar concerns were expressed in a number of different studies, where the decline of participation in social and political activities through traditional channels has been established (Skocpol & Fiorina, 1999; Norris, 1999). It has been argued that the decline in participation could lead to the erosion of democracy (Kaase & Newton, 1995; Norris, 2002). Putnam's work sparked a wide debate about the future of democracy, but the key problem with this argument is that Putnam never established a precise definition of civic engagement (Adler & Goggin, 2005). His understanding of civic participation includes a wide range of formal and informal activities, from reading newspapers, interpersonal trust, associational involvement to various forms of political participation. A number of such heterogeneous activities are placed under the umbrella of social capital. According to some authors (Berger, 2009, p. 336; Sartori, 1970), civic engagement is a typical example of conceptual stretching, i.e. concept that comprises a bit of everything.

It is not universally accepted that a decline in civic participation levels is the same thing as the erosion of democracy. Also, there is a strong dispute about whether we are dealing with the decline of civic engagement at all (Norris, 2002, pp. 5-7; Stolle & Hooghe, 2005; Berger, 2009). The evidence of a decline in civic participation is still rather inconclusive. Verba et al. (1995, p. 71) find that some forms of political activity increased from 1967 to 1987 (persuading others to vote, working for candidates, contributing money to candidates and parties; and contacting public officials). Rosenstone and Hansen (1993, ch. 3) found no clear trend in the activities such as working for parties or candidates and in signing petitions, but found strong increases in campaign contributions. Using data from the Roper Social and Political Trend data set from 1974 to 1994, Uslaner (2005) presented evidence of a consistent decline of political participation. For each of the investigated political activities (contacting public officials, attending rallies and public meetings, running for office, organizing and serving as an officer on committees, writing letters or articles for the press, working for a party, giving a speech, and being a member of a political club) there has been a decline in participation over time. However, Uslaner did not find indisputable evidence for the decline of other forms of civic engagement. One plausible explanation is that although membership in the traditional civic groups has experienced a decline, in the meantime many new forms of civic organizations emerged that may have replaced old style civic groups that were popular in the time of Putnam's research (Wuthnow, 1998). General

Social Survey data (GSS) show that decreases in membership has been registered for only four groups out of 15: religious and church, labour and fraternal organizations. Membership in other groups either remained unchanged or has actually increased (professional associations). Uslaner (2005) claims that there are many different forms of participation which have different roots (meaning that what works to get people involved in one arena often has little effect in another) which explains why some forms of participation have declined, others have risen, and some have remained flat. Uslaner classifies the long list of social and political activities into three dimensions: political involvement, religious participation and community engagement. He found that these dimensions are largely mutually independent. Although community engagement is correlated with both religious and political activities, these correlations are far from strong. What stands out particularly from his analysis is that group memberships are unrelated to any other form of participation. It means that a community involvement does not mean that a person is more or less likely to take part in political activities. Some people are engaged in religious activities, some are politically active and other are prone to take part in communal activities.

Transition countries have implemented extensive political and economic reforms during the past few decades. Prior to transition, a long history of repression discouraged people from broadly associating with others, which has led to political apathy among citizens of those countries. There were very few civic organizations, and those that existed were in the service of the state, and they were mainly concentrated in the areas of sports and culture (Rose-Ackerman, 2001). Trade unions and professional associations are organizations whose existence has been allowed, but without a significant social impact. Just before the start of the transition, in some countries independent organizations have begun to emerge and from the last decade of the previous century, most of them began to gain autonomy and their own identity. Over time, more or less forced participation was gradually replaced by voluntary activities. Relatively stronger emphasis on sports and culture, as well as on professional associations and trade unions that existed in the previous system, apparently was kept during the transition, and the development of other organizations was heavily dependent on financial support. The beginning of the transition period was marked by the significant rise of civic initiative, expressed through officially registered organisations. Rapid development was followed by the slowing-down of civil society growth since the mid-1990s, that is, consolidation of civil society, further development and strengthening of existing organization and to a much lesser extent establishment of new ones.

Scholars from different disciplines warn us that civil society is structurally deficient in post-communist countries, since new democracies did not manage to develop and strengthen civic initiatives and participation in governance (Lomax, 1997; Ely, 1994). These countries are characterized by the low level of interpersonal and institutional trust and associational activity (Wallace et al., 2012). Since civic and political participation are crucial for the consolidation of new democracies in the region (Badescu & Radu, 2010), the rising popularity of radical right parties in Central and East European countries has been perceived as a natural outcome of the low level of civic engagement (Rupnik, 2007; Minkenberg, 2002).

Majority of debates about civic participation in transition countries are rooted in Marc Morje Howard's 'weakness of civil society' hypothesis. According to this hypothesis, citizens in these countries exhibit lower levels of civic and political engagement compared to other democracies. Howard points out to the existence of closed networks based on family ties and a lack of trust towards people outside of those networks. This is

the so called bonding social capital and these societies did not manage do develop bridging social capital, which is very important for the development of interpersonal trust. In addition, Howard points out to the legacy of distrust towards communist organisations and disappointment with post-communist politics (Howard, 2002; 2003).

Participation in voluntary associations has not been encouraged in former socialist countries. Autocratic control resulted in low levels of interpersonal trust, which became a permanent characteristic of post-socialist societies (Inglehart, 1999; Rose, 2009). Low level of interpersonal trust discouraged citizens to take risks that are necessary for social change, which is perceived as a sign that political culture in former socialist countries is subjective and passive. Petričušić (2013) points out to the legacy of social and political distrust, resulting in a greater prominence of informal, rather than formal or associational type of networks. Countries with low levels of interpersonal trust are less likely to build the kind of vibrant civil society that spurs strong government performance, and the result is low citizen confidence in government and public institutions (Newton & Norris, 2000).

There is a disagreement among scholars about whether civil society in the region should be considered as vibrant or vulnerable. Not everybody agrees with the claim that the level of civic engagement in the post-communist countries is low. Since there was seemingly very mobilized and active civil society at the beginning of transition, which gave rise to development of democracy, civil and political rights and freedom, we should expect vibrant civic activity, instead of civic passivity. Ekiert and Foa (2011) suggest that the argument about passive civil society and political apathy throughout the region is not true, and that the argument about the weakness of post-communist civil society has not been empirically confirmed.

2. Data Overview and Methodology

The data used in this study is obtained from the European Bank for Reconstruction and Development (hereafter EBRD) survey of households and individuals across the transition region – the *Life in Transition Survey* (EBRD, 2016). This survey provides data on individual views of citizens on democracy, market economy and the impact transition reforms have had on their lives. The survey aims to explore life satisfaction and expectations regarding the future, interviewing over 51000 households in 29 transition countries. In our empirical estimations, data from the most recent round of the survey (LiTS, 2016), carried out in over 1500 households in Serbia during the year of 2016, will be used, along with data collected in previous rounds of the survey (LiTS, 2006; LiTS, 2010) for the purpose of comparisons.

To estimate the relevance of civic engagement in voluntary associations on political involvement in Serbia, we perform a non-parametric analyses of variance test, the Kruskal-Wallis H test (Kruskal and Wallis 1952). This procedure is used for testing the assumption that the intensity of political participation differs based on the level of participation in community associations. In other words, we test whether there are significant differences in multiple forms of political participation between groups characterized by different degrees of civic activism (active membership, non-active membership and not being a member). As the test confirms the presence of significant differences, we employ post hoc tests to determine which specific groups differ significantly among each other.

The variable approximating civic participation used in our analysis is *the membership in voluntary organisations.* This quantitative measure estimates the intensity of civic

engagement by counting the respondents engaged in various types of community organisations. This measure allows for the differentiation of the degrees of activism, since it indicates the extent to which respondents are active in civic associations (as active, passive, or non-members). Following the majority of studies in this area, we explore the extent of participation in a wide range of associations and groups as the main indicator of citizens' participation in the social life.

The dynamics of political participation is captured by data on conventional participation in terms of *political party membership*, but also on self-reporting participation in three forms of non-conventional political activities, such as *attending demonstrations*, *participating in strikes* and *signing petitions*. Since political participation is a more complex phenomenon that includes not only voting behaviour, but also demonstrations, strikes, boycotts and other forms through which citizens can influence politics, political participation nowadays is usually understood as a range of voluntary activities by citizens, with the aim to influence political choices at various levels of the political system (Milbrath, Goel 1977, 2; Kaase, Marsch 1979, 42). These measures of political involvement are frequently used in empirical studies of political participation, as most reliable indicators of political involvement, closely related to the mechanisms of political representation. Representing more demanding and active forms of political participation, the indicated variables indirectly reflect the quality of democratic system.

Table 1 Levels of civic participation in Serbia (% of total respondents)

Community organizations	Active member		Inactive member		Not a member	
	2010	2016	2010	2016	2010	2016
Religious	3,82	7,89	24,29	12,93	71,89	79,18
Sports and recreational	3,69	3,38	2,70	7,49	93,61	89,12
Art music or educational	2,63	2,06	1,18	4,58	96,18	93,37
Labour unions	2,96	1,92	5,01	7,10	92,03	90,98
Environment	0,53	0,53	1,05	3,85	98,42	95,62
Professional	2,37	2,59	1,78	4,05	95,85	93,37
Humanitarian or charitable	1,78	1,13	1,78	6,23	96,45	92,64
Youth	0,66	0,73	0,59	1,99	98,75	97,28
Women's groups	/	0,66	/	2,65	/	96,68
Farming cooperatives	/	0,80	/	2,06	/	97,15

Source: LiTS, 2010; 2016[2]

To explore the patterns of civic participation in Serbia, Table 1 reports the percentages of active, inactive and non-members in a number of voluntary organizations.

The findings indicate that a majority of Serbian citizens refrain from participating in formal community organizations. Over 65% of all respondents do not belong to any of them, 17,6% report membership (active or inactive) in one organization, 7,5% claim to participate in two community organizations, while 9% of the respondents participate in 3 or more associations (not enclosed in table, author's calculations based on LiTS, 2016). Narrowing the concept of civic participation to active membership in community organizations indicates that only 10% of citizens are actively engaged in one organization, while the minority of citizens (around 5%) are active in two or more associations.

[2] Comparable data on membership in voluntary organizations are available only in the second and third round of the LiTS.

Comparing the degree of associational activity with countries belonging to the developed world, Western Europe or North America, the findings suggest that civic participation in Serbia is hardly prevalent, measured by formal group membership.

There is a lively debate on which types of community engagement seem to be relevant for political pluralism and democratic consolidation, resulting in a wide list of heterogeneous organizations that are supposed to affect *citizenry competence* and political involvement in different ways. The assumption is that membership in various organizations, even if not being considered politically relevant or involving active participation, does improve civic competence and efficacy (Almond and Verba, 1963). The distribution of membership across different types of civic organizations indicates that among the minority of citizens that join community groups, the most popular organizations are church, sports associations and labour unions. The interest in vocational associations, such as professional or arts, music and educational groups is somewhat lower. Least popular civic associations are those belonging to third sector (humanitarian organizations, groups protecting women rights, youth cooperatives, environmental associations). The citizens of Serbia appear to be reluctant to join the associations that capture the original notion of civic society (such as organizations of the non-profit sector), while being more apt to participate in business and life-style associations and work force related organizations.

The dynamics of civic participation in Serbia in the post-transition period does not support the assumption of discouraged citizen engagement. Compared to the findings of the first round of the survey (LiTS, 2006), where only around 7% of the respondents reported to be members of a civic/voluntary organization (club, association), ten years later over 35% of citizens are actively or passively engaged in one of the many types of civic associations. Furthermore, in the last five years, the degree of civic participation has increased in all types of associations, except for the church. However, a closer look into the pattern of participation in the majority of organizations reveals that, although the total membership has indeed increased since the last measurement, the increase has largely concerned the passive forms of participation. Active participation has only improved in professional and youth organizations.

Tables 2 and 3 report on data concerning forms of political participation in Serbia in the last decade. The proportion of respondents that are members of political parties is 8,5%. This contrasts sharply from, for example, Germany, as an established democracy, where self-reported party membership mounts up to 13,6%, but also from Italy, where party membership is only 3,3%. These facts imply that even established democracies are highly differentiated in terms of party membership, so the value of this indicator does not make Serbia a special case. However, the data clearly indicate a slight political disengagement of citizens, measured in terms of membership, as a conventional form of participation.

On the other hand, the dynamics of political participation in terms of non-conventional political activities seems to follow the pattern observed in civic participation. Namely, the proportion of citizens that express reluctance to alternative forms of political activism, such as joining demonstrations, strikes or petitions is obviously lower than ten years ago (the third column of Table 3 indicates smaller percentages of citizens that would never engage in such activities). However, increased interest in political activities has mostly been directed to passive considerations of participating in such activities (*might do*), rather than active political involvement (*have done*). The indicators that capture true participatory political behavior imply a decreasing intensity of active political engagement.

Table 2 Membership in political parties in Serbia (in %)

	Yes		No	
	2006	2016	2006	2016
Membership in a political party	11,36	8,48	88,64	91,52

Source: LiTS, 2006; 2016

Table 3 Forms of political activism in Serbia (in %)

	Have done		Might do		Would never do	
	2006	2016	2006	2016	2006	2016
Demonstrations	14,00	7,16	21,70	32,36	64,30	60,48
Strike	9,50	6,63	26,10	34,95	64,40	58,42
Petitions	12,91	11,60	42,74	44,63	44,34	43,77

Source: 2006; 2016

3. RESULTS AND DISCUSSION

For estimating the relevance of civic participation on the intensity of political involvement of citizens in Serbia, we employ the non-parametric analysis of variance test, Kruskal-Wallis H test. This procedure tests whether there are statistically significant differences between two or more groups of an independent variable, that is measured on an ordinal scale. The results of this analysis should imply whether the participation of citizens in different types of community organizations (independent variables) would affect citizens' decisions on membership in political parties or participating in various political activities, such as strikes, demonstrations, petitions (dependent variables). Since each type of community involvement is assumed to affect political participation in different ways, the analysis will be performed separately for each type. The data in our analysis meet the assumptions that underpin the Kruskal-Wallis procedure: the variables are measured on the ordinal scales, independent variables (involvement in different organizations) consist of three independent categorical groups (active member, inactive member, not a member), the observations are independent between and within the groups and the distributions of scores for groups of independent variable reflect the same variability.

Table 4 Kruskal-Wallis equality-of-populations rank test

	df	Membership		Demonstrations		Strikes		Petitions	
		χ^2	p>|t|	χ^2	p>|t|	χ^2	p>|t|	χ^2	p>|t|
Religious	2	20,09*	0,0001	29,58*	0.0001	20,92*	0.0001	6,59*	0,0371
Sports	2	26,73*	0,0001	76,72*	0.0001	78,46*	0.0001	46,40*	0.0001
Art	2	10,95*	0,0042	68,24*	0.0001	57,42*	0.0001	40,02*	0.0001
Labour Union	2	39,47*	0,0001	66,60*	0.0001	73,29*	0.0001	44,38*	0.0001
Environmental	2	20,77*	0,0001	26,35*	0.0001	17,63*	0.0001	9,54*	0.0085
Professional	2	24,30*	0,0001	62,20*	0.0001	59,02*	0.0001	53,00*	0.0001
Humanitarian	2	44,51*	0,0001	21,21*	0.0001	26,43*	0.0001	22,23*	0.0001
Youth	2	1,93	0,3810	34,78*	0.0001	17,88*	0.0001	7,67*	0.0216
Women	2	10,45*	0,0054	16,55*	0.0003	10,58*	0.0050	9,88*	0,0072
Farmer	2	15,04*	0,0005	14,80*	0.0006	11,66*	0.0029	5,13	0,0770

Source: LiTS, 2016, author's calculations; *Significant at 5% level

Table 4 reports on the results of the test that determined if citizens' political involvement was different for three groups that either actively participated in a particular community organization (1), were passive members (2) or not members at all (3). The finding suggest that there are statistically significant differences in all forms of political participation, based on actors' involvement in organizations of civic society. The minor exceptions relate to participation in youth organizations not affecting party membership, while being a member of farmer cooperatives does not influence the political activity of signing petitions (obtained χ^2-values, degrees of freedom and significance levels included in the output).

As the analysis performed only indicates that at least two groups within the civic participation variable differ from each other, we use post hoc test to determine which specific groups are significantly different in terms of political involvement. The results of pairwise comparisons of means, displayed in Table 5, indicate statistically significant differences at the $p<0.05$ levels in alternative forms of political participation between particular groups of citizens with different levels of civic participation.

Considering party membership (with the assigned values yes – 1 and no – 2) as dependent on the involvement in a civic association, the findings are mostly conclusive – groups of citizens that are not members of a particular organization tend to be less inclined to become members of a political party, compared to passive or active members. Minor exceptions are related to sports organizations, where the analysis determined that active sports members are less interested to be members of political parties than passive ones. Membership in youth organizations does not seem to be relevant for political involvement, as previously stated. Considering all other cases, the degree of activity in civic organizations encourages political activism in terms of party membership.

According to the findings, community engagement is a significant predictor of non-conventional political activities. The values assigned to the variables concerning attendance on demonstrations, strikes and signing petitions (have done -1, might do -2, would never do 3) are higher for the non-members compared to members. There are variations present when analyzing the relevance of being an active or passive member of an organization for political activism, that depend on a particular type of association. For example, active members of labor unions and professional organization tend to participate more actively in strikes, while for the majority of organizations, being active or passive member does not have an impact on political activity. In most situations, the membership itself is positively affecting political activism. In general, our analysis confirms the significance of membership in associations for political involvement in Serbia.

Such results are consistent with previous empirical findings about the relevance of participation in voluntary organizations for the level of political involvement in transition countries. A majority of studies have confirmed that people participating in larger social networks do express larger interest for politics (Knack, 1992; Rosenstone and Hansen, 2003). Letki (2004) confirms a large impact of community association membership on political involvement, although emphasizing that associations do vary in terms of their relevance for political involvement. In testing the determinants of both conventional and non-conventional political participation in Romania, Uslaner (2004) finds strong effects of active participation in civic organizations on participation in political life. The studies, however, indicate a wide range of other potential determinants of political participation that are beyond the scope of our analysis, such as social trust, socio-economic characteristics of citizens (income, education, age, gender), along with country level factors that reflect state of democracy and quality of political institutions.

Table 5 Membership in political parties in Serbia (in %)

	Membership		Demonstrations		Strikes		Petitions	
	Contrast	p>|t|	Contrast	p>|t|	Contrast	p>|t|	Contrast	p>|t|
Religious								
2 vs 1	.010	.752	.227	.002*	.188	.009*	.091	.246
3 vs 1	.086	.001*	.307	.000*	.252	.000*	.137	.034*
3 vs 2	.076	.000*	.081	.093	.064	.178	.046	.374
Sports								
2 vs 1	-.135	.005*	-.081	.432	-.051	.619	-.085	.445
3 vs 1	.008	.846	.385	.000*	.409	.000*	.302	.001*
3 vs 2	.142	.000*	.466	.000*	.460	.000*	.387	.000*
Art								
2 vs 1	.005	.940	-.237	.073	-.240	.067	-.037	.797
3 vs 1	.100	.059	.375	.001*	.324	.003*	.415	.001*
3 vs 2	.095	.005*	.612	.000*	.564	.000*	.452	.000*
Labour Union								
2 vs 1	.036	.546	-.192	.135	.376	.003*	-.144	.299
3 vs 1	.189	.000*	.298	.010*	.144	.205	.289	.020*
3 vs 2	.153	.000*	.490	.000*	.520	.000*	.433	.000*
Environmental								
2 vs 1	.049	.657	-.004	.985	.065	.780	-.073	.772
3 vs 1	.208	.048*	.427	.052	.408	.061	.209	.380
3 vs 2	.158	.000*	.431	.000*	.344	.000*	.282	.002*
Professional								
2 vs 1	.130	.023*	.301	.016*	.301	.015*	.184	.174
3 vs 1	.206	.000*	.723	.000*	.706	.000*	.639	.000*
3 vs 2	.076	.038*	.421	.000*	.405	.000*	.455	.000*
Humanitarian								
2 vs 1	.047	.518	-.156	.340	-.033	.837	-.027	.878
3 vs 1	.223	.001*	.142	.352	.307	.040*	.285	.080
3 vs 2	.176	.000*	.298	.000*	.340	.000*	.312	.000*
Youth								
2 vs 1	-.133	.175	.248	.256	.291	.180	-.058	.807
3 vs 1	-.084	.317	.730	.000*	.620	.001*	.238	.240
3 vs 2	.048	.342	.481	.000*	.329	.004*	.296	.017*
Women								
2 vs 1	-.125	.203	-.350	.113	-.300	.169	-.300	.205
3 vs 1	.019	.827	.044	.824	.027	.891	.031	.886
3 vs 2	.144	.001*	.393	.000*	.327	.001*	.331	.001*
Farmer								
2 vs 1	.133	.160	.341	.107	-.005	.980	-.102	.654
3 vs 1	.253	.002*	.627	.001*	.362	.043*	.162	.406
3 vs 2	.120	.019*	.286	.012*	.367	.001*	.264	.077

Source: LiTS, 2016; *Significant at 5% level

CONCLUSION

The paper deals with the issues of civic and political participation, with a special focus on the post transition period in the countries that have transformed their economic and political systems, usually referred to as *new democracies.* Our analysis tends to contribute to the existing literature by empirically investigating the relevance of the involvement in civic associations for the citizens' political participation in Serbia. Contrary to the assumptions of civic *demobilization* in transition countries, our findings indicate that proportions of citizens engaged in various types of community organizations have steadily grown over the last decade. However, the dynamics of civic participation reveals that the increase has been largely limited to the passive forms of participation. Furthermore, compared to established democracies, the degree of associational activity in Serbia is rather low. The patterns of political participation, especially the non-conventional forms of political activism, seem to follow the dynamics of civic participation. The employed empirical procedures confirm the assumptions that associational activity is a significant predictor of all types of political engagement, which is in line with prior empirical investigations on the relation between civic and political participation in both developed and transition countries.

The obtained empirical findings are to be interpreted bearing in mind the usual methodological limitations related to the usage of survey data on subjective preferences and attitudes. Further research should focus on exploring a wider set of determinants that affect the levels of political participation in countries that are still going through the democratic consolidation process. Such studies provide useful implications for the policies aimed at strengthening civic society and creating incentives for citizens' active involvement in political life as an essential element of credibility of institutions.

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GRAĐANSKA I POLITIČKA PARTICIPACIJA U TRANZICIONIM ZEMLJAMA: SLUČAJ SRBIJE

Cilj rada je da istraži dinamiku građanske participacije u Srbiji, kao i da ispita njen uitcaj na političko angažovanje građana Srbije. Za ispitivanje uticaja članstva u građanskim udruženjima na članstvo u političkim partijama i nekonvencionalne oblike političkog aktivizma, primenjen je neparametarski test analize varijanse i post hoc test. Glavni nalazi istraživanja ukazuju da građanska participacija predstavlja značajan faktor političkog aktivizma građana Srbije. Rezultati empirijskih analiza ukazuju na značajne razlike u stepenu političke participacije, koje su zasnovane na razlikama u stepenu građanskog angažovanja u društvenim organizacijama. Implikacije ovog istraživanja mogu da predstavljaju osnov za kreiranje politika usmerenih ka jačanju građanskog društva i stvaranje podsticaja za aktivno učešće građana u političkom životu.

Ključne reči: *građansko društvo, politička participacija, tranzicija, demokratija*

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Review Paper

ON THE THRESHOLD OF "ADULTHOOD": WESTERN BALKANS' TRANSITION FAILURES

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Abstract. *After the beginning of the transformation of centrally-planned economies into market economies, the implementation of a transition project in the case of new EU members (a total of 10 countries joined through the enlargements of 2004 and 2007) lasted for almost two decades, far longer than the pessimistic forecasters announced. By contrast, the Western Balkan countries (in total 6 of them), with the exception of Croatia (EU member since 2013.), have neither continuity nor adequate success in carrying out the reform processes. That is why their transition still has an uncertain outcome and an unpredictable duration. In order to determine to which stages the less developed countries have arrived at the moment when those more advanced have almost finished their transition, we will use the EBRD indicators. We will then explain the phases of Western Balkans transition dynamics (first wave reforms and deeper reforms) in order to show that these economies have partially followed the pattern reccommended by advanced economies, leaving the segment of deeper reforms unfinished. Finally, relying on the new model for measuring transitional progress (which the EBRD has been using since 2011), we will try to evaluate which part of the predicted trajectory Western Balkans really crossed on their path to transitional "adulthood".*

Key words: *transition, Western Balkans, structural reforms*

JEL Classification: P27, P52

INTRODUCTION

The economic transformation of former centrally planned economies officially began more than a quarter of century ago and was initiated with the intention of achieving the standards of developed market economies. At the time, researchers were arguing and

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disputing about the time-frame of the project of transition (Dornbusch, 1990), the sequence of steps that should be undertaken, as well as ways of institutionalizing changes (Eatwell et all., 1995). They claimed that either inconsistent policies or the very concept of a transitional project should be blamed for omissions expressed in the absence of relevant results and/or failure to fulfill them within the foreseen deadline. The importance of institutional development is rarely emphasized meanwhile (Campos, 1999). It has become significant no sooner than ten years after the beginning of the transition, when researchers recognized the importance of the initial (inherited) conditions as well as the duration of their effects for the successful implementation of the transitional project (Stiglitz, 1999).

Countries that will be labeled as "new members of the European Union" (after the enlargements done in 2004 and 2007) have relatively successfully completed the key reform processes and materialized their results (through the above mentioned membership). However, it turned out that their economic and structural transformation was an unpredictable and difficult process that lasted longer than the theoreticians anticipated. The countries of the Western Balkans have been in a far more difficult position, as they can not boast of a continuous tradition in the implementation of structural reforms in their economies. In fact, these processes were initiated more seriously with the delay of ten years, but now under significantly changed economic, political, demographic and other circumstances. After nearly two decades of undertaking a variety of reform initiatives (which is a sufficiently long time interval for producing certain results, judging by experience of new members of the EU), it seems quite appropriate to set up the following question: will their transition be completed soon?

Although the answer to this question seems to be determined by the way it is set up, we will try to justify the origin of our suspicion regarding the relatively near end of the transition. Using the EBRD Indicators, we will measure the success in implementing the reform process on the example of 16 transition countries. We want to determine to which stages the less developed economies arrived at the moment when advanced countries have almost finished their transition. We will then explain the phases of the Western Balkans transition dynamics (first wave reform and deeper reform) in order to show that they more or less have followed the pattern recommended by advanced economies, leaving the segment of deeper reforms unfinished (IMF, 2015). Finally, relying on the new model for measuring transitional progress (which the EBRD has been using since 2011), we will try to evaluate which part of the predicted trajectory Western Balkans crossed so far. In the light of new empirical insights into their current position, we intend to try to determine whether and when the ending of transitional processes in this region could be expected.

1. CARRYING OUT OF TRANSITION: HOW LONG WOULD IT TAKE?

The very beginnings of the transition were marked by non-productive discussions of two (well known) contradictory points of view regarding the speed of reform changes. The attractiveness of this topic was relatively quickly materialized through empirical works that attempted to formulate an appropriate methodology for measuring progress in transition. Over time, EBRD indicators were established as the most prominent in analytical work, as they covered all those important areas of reforms that are necessary for the introduction of a market economy model. These indicators (there are a total of 9) are the following ones:

privatization of small enterprises, privatization of large enterprises, restructuring of enterprises, price liberalization, trade liberalization and exchange rate regime, competition policy, liberalization of the banking sector, reform of non-banking institutions, infrastructure reform. Progress assessment for each indicator ranges from 1 (equivalent to the situation in which reform processes did not begin) to 4+ (or approximately 4.33, for a stage in which transition economies reach the standards of developed market economies). In fact, the sum for all nine indicators can be at least 9 and a maximum 38.97 (9 x 4.33) points. In other words, as Cerović and Nojković explicitly pointed out (2009), even when there are no reforms, it is assumed that the country is earning 9 points (as if it crossed almost a quarter of the transition trajectory). If we apply an approach that eliminates this inappropriate point allocation, progress in transition can be measured in the following way: we will deduct the undeserved "start-ups" from the points achieved, and put the resulting amount in relation to the total (projected) "length" of the path (29.97 points) that each transition economy is supposed to pass through in order to reach the level of developed market economies (the difference between the maximum of 38.97 and the minimum of 9 points).

The following tables illustrate the evolution of transition economies (new members of the EU and the Western Balkan countries) in selected years - 1999, 2004, 2007 and 2010. These data are consciously (although subjectively) selected: 1999 as the synonym for a decade-long reform attempts in advanced transitional economies; 2004 as the year in which as many as ten transition countries joined the European Union after at least 15 years of implementation of the reform processes; 2007 which (from the global point of view) was the last pre-crisis year, and 2010 as the last year in which the EBRD measured the progress in transition in this way. Comparing the values of the indicators for the analyzed countries, we found that the 2000 and 2005 Reports did not provide identical data for the year 1999 (the differences range from 0.6 to 1.2 points for all 9 indicators). Data for the mentioned year for most countries were taken from the 2000 Report, except in the case of Serbia and Montenegro (where, out of objective reasons, we had to rely on the 2005 Report, since those countries were not part of the 2000 Report). And the calculation looks like this (if we take Bulgaria's result for 1999 as the example): 9 starting points will be deducted from 25.9; the result obtained is 16.9 and in relation to the projected length of the transition path - 29.97 points, we got 56.9% as the measure of the progress achieved.

Table 1 Progress in transition in % - new EU member states (1999 and 2004)

Country	EBRD Indicators 1999	Progress made (in %)	EBRD Indicators 2004	Progress made (in %)
Bulgaria	25.9	56.39	30.3	71.07
Czech Republic	30.7	72.41	33.5	81.75
Estonia	31.4	74.74	34.1	83.42
Hungary	33.3	81.08	34.9	86.42
Latvia	27.7	62.39	32.0	76.74
Lithuania	27.6	62.06	31.6	75.41
Poland	31.0	73.41	32.8	79.42
Romania	25.7	55.72	28.9	66.39
Slovakia	28.7	65.73	32.9	79.75
Slovenia	28.5	65.06	30.3	71.07

Source: EBRD (2000) and EBRD (2005) for columns 2 and 4 respectively; calculation of authors for columns 3 and 5.

Table 2 Progress in transition in % - new EU member states (2007 and 2010)

Country	EBRD Indicators 2007	Progress made (in %)	EBRD Indicators 2010	Progress made (in %)
Bulgaria	31.4	74.74	32.0	76.74
Czech Republic	34.3	84.42	*	/
Estonia	35.3	87.75	35.3	87.75
Hungary	35.6	88.76	35.6	88.76
Latvia	32.6	78.74	32.6	78.75
Lithuania	33.2	80.75	33.2	80.75
Poland	33.9	83.08	33.9	83.08
Romania	30.7	72.41	31.0	73.41
Slovakia	33.6	82.08	33.9	83.08
Slovenia	30.3	71.07	30.6	72.07

Source: EBRD (2008) and EBRD (2010) for columns 2 and 4 respectively; calculation of authors for columns 3 and 5.

Table 3 Progress in transition in % - Western Balkans (1999 and 2004)

Country	EBRD Indicators 1999	Progress made (in %)	EBRD Indicators 2004	Progress made (in %)
Albania	22.2	44.04	26.0	56.72
Bosnia and Herzegovina	17.4	28.03	22.7	45.71
Croatia	26.9	59.73	30.9	73.07
Macedonia	23.8	49.38	27.2	60.73
Montenegro	13.0	13.35	21.7	42.38
Serbia	13.0	13.35	21.9	43.04

Source: EBRD (2000) and EBRD (2005) for columns 2 and 4 respectively; calculation of authors for columns 3 and 5.

Table 4 Progress in transition in % - Western Balkans (2007 and 2010)

Country	EBRD Indicators 2007	Progress made (in %)	EBRD Indicators 2010	Progress made (in %)
Albania	26.6	58.73	27.6	62.06
Bosnia and Herzegovina	24.4	51.38	25.0	53.39
Croatia	31.6	75.41	31.9	76.41
Macedonia	28.2	64.06	29.3	67.73
Montenegro	25.1	53.72	26.0	56.72
Serbia	24.7	52.39	26.0	56.72

Source: EBRD (2008) and EBRD (2010) for columns 2 and 4 respectively; calculation of authors for columns 3 and 5.

Speaking of new EU members, it is noticed that ten years after the start of the transition only Hungary has managed to make a dramatic shift to the regime of market economy. At that time, Estonia, Poland and the Czech Republic were closely approaching the threshold (75% of the reforms done). The worst results were achieved by Romania and Bulgaria (as well as underestimated Slovenia), whereas other countries have been exposed to similar pace of changes. All these results fit into the dynamics of the European Union's enlargement that will follow. By looking at the data for 2004, 2007 and 2010, it is notable that for most of

analyzed countries the implementation of the transitional "project" took approximately 15 years, i.e. that it lasted longer than even pessimistic prediction (Fischer and Gelb, 1991).

With the exception of Croatia, which at that time (a decade after "official" start of transition) approached the level of almost 60% of the reforms implemented, the group of other Western Balkan countries, in terms of the overall reform process, could not, in any way, be able to compare with any of the ten countries belonging to the group of new EU member states. Five years later, three out of six Western Balkan countries have not yet reached half of the transition path. When two decades expired and the transition cycle in advanced economies is somehow rounding up, in the area of Western Balkan the situation has only slightly improved. It means that all the countries of this group have crossed halfway; if we exclude Croatia from the analysis (as the most successful one, which in the meantime became an EU member), we will find that the average value of transition indicator for the remaining five countries is 26.78, which is the equivalent of progress in reforms at the level of 59.32%. Is there any chance to explain and/or to justify these modest results?

The experiences of other transition countries and the measurement of their progress in transition have been translated into various studies (De Melo et al, 1997) arguing that the inherited economic and institutional conditions dominantly affect economic performance only for a shorter period (5-6 years), and that their disadvantages can be compensated by the greater commitment of policy makers and higher speed in the implementation of reform policies. However, a systematic review of some transition settings (Stiglitz, 1999) resulted in a different standpoint emphasizing that the speed of reforms is the endogenous variable predetermined by initial (inherited) conditions.

It has been established that the impact of initial conditions (macroeconomic (in) stability and institutional capacity) is decisive for reform activities, and that its effects are prolonged for the entire transition period. In other words, the pace of achieving reforms was predominantly determined by the initial conditions (level of general and particularly institutional development). That is why contextually unspecified programs (which did not respect the inheritance of each country) could not cause better results (Cerović & Nojković, 2009).

2. Pace of Reforms in the Western Balkans

Is there any regularity in making the transition progress either for the entire Balkan region or for any of its countries? Did they respect the recommended sequencing and what pace did the reforms take?

It is known that political turmoil and war in this area have significantly delayed the onset of economic and structural transformation. It is commonly claimed in the literature that, after a decade of delay comparing to advanced transitional economies, the Western Balkan countries strongly embarked on reform changes, accelerating their implementation in a very short period of time (2000-2002). Unfortunately, this momentum lasted briefly and was followed by a change in policy course firstly denying and consequently slowing down the reform processes (Cerović & Nojković, 2008).

According to the values of the transition indicators for 2004, 2007 and 2010, assuming that 1999 is taken as the base year, in the next table we will calculate the corresponding indexes. They will serve us to separate the periods in which the reforms gripped from the ones in which they slowed down (Manić, 2015).

Table 5 Western Balkans transition indexes for selected years (1999 = 100)

Country	2004	2007	2010
Albania	117.1	119.8	124.3
Bosnia and Herzegovina	130.5	140.2	143.6
Croatia	114.9	117.5	118.6
Macedonia	114.3	118.5	123
Montenegro	166.9	193	200
Serbia	168.5	190	200

Source: Calculation of authors according to EBRD (2000); EBRD (2005); EBRD (2008) and EBRD (2010)

Although 70% of the reform process was made by 2004, in the case of Albania the core changes occurred in 2000, since 52% of the total progress made during the decade was realized exactly in one year.

By 2004, Bosnia and Herzegovina had implemented two-thirds of reforms, which is similar to the situation in Macedonia (62% of the reforms were undertaken till 2004), whereas key moves were made at the very beginning of the transition (2000/2001 and 2000 respectively).

By 2004 and 2005, Croatia and Montenegro achieved 80% and 82% of overall progress in the analyzed period, and the pace of implementation of reforms was the most dynamic in 2000 in the case of Croatia, and in 2001 and 2002 in the case of Montenegro.

Serbia followed a similar pattern: accelerated changes were carried out in 2001 and 2002, followed by a slowdown in reform. Of the total progress made since 1999, two-thirds were realized during the above mentioned years.

If the Balkan countries really started the transition ten years later than the others, their modest results can be justified by the delay in transition. It is also possible that the longevity of their transition can be attributed to a different sequence of reform undertakings. Finally, it would be worth examining if there were any adjustments of economic policies at turning points in transition development.

If we divide the reform changes to two categories - those belonging to so-called *the first wave reforms* (represented by 4 transition indicators: price liberalization, liberalization of exchange rates and trade, privatization of small and large enterprises) and the others belonging to *deeper (institutional and structural) reforms* (represented by the remaining 5 indicators: enterprise restructuring, competition policy, liberalization of the banking sector, reform of non-banking institutions, infrastructure reform) - it is easier to see which reform processes have been completed and when, as well as which of them are still in the infancy phase (Tables 6-8).

Table 6 Indicators of first wave reforms (unweighted average)

Country	1999	2004	2007	2010
Albania	3.6	3.9	3.9	4.1
Bosnia and Herzegovina	2.75	3.25	3.42	3.5
Croatia	3.82	3.98	3,98	3.98
Macedonia	3.75	3.82	3.98	3.98
Montenegro	2.18	3.25	3.75	3.75
Serbia	1.82	3.15	3.42	3.6

Source: Calculation of authors according to EBRD (2000); EBRD (2005); EBRD (2007); EBRD (2008) and EBRD (2010)

Table 7 Indicators of deeper reform (unweighted average)

Country	1999	2004	2007	2010
Albania	1.56	2.14	2.2	2.26
Bosnia and Herzegovina	1.28	1.94	2.14	2.2
Croatia	2.32	3	3.14	3.2
Macedonia	1.76	2.38	2.46	2.68
Montenegro	0.86	1.74	2.02	2.2
Serbia	1.14	1.86	2.2	2.32

Source: Calculation of authors according to EBRD (2000); EBRD (2005); EBRD (2007); EBRD (2008) and EBRD (2010)

Table 8 Indicators of overall reform (unweighted average)

Country	1999	2004	2007	2010
Albania	2.47	2.88	2.95	3.06
Bosnia and Herzegovina	1.93	2.52	2.71	2.77
Croatia	2.98	3.43	3.51	3.54
Macedonia	2.64	3.02	3.13	3.25
Montenegro	1.44	2.41	2.78	2.88
Serbia	1.44	2.43	2.74	2.88

Source: Calculation of authors according to EBRD (2000); EBRD (2005); EBRD (2007); EBRD (2008) and EBRD (2010)

Based on the data given in Table 6, it is noted that, on average, the countries of the Western Balkans till 1999 had implemented the reforms belonging to the so-called first wave; in this respect their lagging behind the developed transitional economies was only a couple of years (IMF, 2015, p. 21). Since the turning point occurs at the value of 2.92 (i.e. at the level of 58% of realized activities in this domain - Cerović & Nojković, 2011), and the Balkan countries have overcome this threshold at the beginning of this century, the first wave reforms' effect on growth was expected to be much lower after this point. In addition, although these countries respected sequencing of reforms recommended by the advanced transitional economies (price, trade and exchange liberalization, the small scale privatization), some important interventions (such as the privatization of large companies) were postponed (IMF, 2015). Progress in this segment was uneven across the region: no matter whether we speak about sectors where large privatizations were conducted (like banking, telecommunications and energy) or those where they were not even started (public services); also, there are countries significantly delaying in the initiation of these processes (such as Serbia, BiH and Montenegro).

When it comes to deeper reforms (Table 7), turning points are at values of 1.87 and 2.6, which means that such types of reforms are insignificant for growth between these two turning points. During the first decade of this century, Western Balkan countries (with the exception of Croatia) have found themselves in a position that proves they have already missed the right moment for institutional and structural reforms. Due to this, their lagging behind the advanced transitional economies has increased. Nevertheless, on the example of these countries, it has been shown that the failure to implement these reforms is less detrimental to their growth in times of crisis. It turned out that in the developed transitional economies (which have far advanced in this regard), the degree of achieved deep reforms negatively and significantly influenced their economic performance (Uvalić, 2011).

If we look at the indicator of total reforms, at a value below 2.03 the impact of the reform processes (together with certain inherited conditions) on the growth of the economy is strong, positive, but less significant when the value exceeds 2.81 (or 2.92 if the period of crisis is included); also, the influence of reforms is statistically insignificant for all values between 2.03 and 2.81 (i.e. during the central phase of the reform).

In the case of the Western Balkan countries, the overall reform index is increasing (Table 8), but this growth is not significant for the central phase of transition in which these economies are located. With the progression of transition reforms, the growth model is transformed (by achieving relevant turning points; Cerović & Nojković, 2011; Cerović, 2012), which requires an appropriate adjustment of economic policies. However, the Balkan countries based their development on expecting the spontaneous effects of the implemented reforms to arise, rather than on the new development approach. In fact, since they missed the opportunity to make changes, Western Balkan economies remained within the framework of spontaneously generated growth models resulting from the reforms that belong to the first wave (Cerović & Nojković, 2011a, pp. 34-37).

3. WESTERN BALKANS: STUCK IN TRANSITION?

Compared to the European Union average, the lagging behind of the Balkan countries is of such a range that there is a significant need for structural reforms in almost all areas. What reform processes should be actualized and prioritized?

As we have already mentioned, it is widely accepted that structural reforms can stimulate economic prosperity. Although the effect of reforms is generally beneficial, for middle and low income countries (like the Western Balkans), institutional as well as infrastructure reforms are relatively more important (owing to their positive impact on growth). Therefore, for their further advancement reforms' compatibility and existence of market supporting institutions seem to be crucial (Coricelli & Maurel, 2010). That is why EBRD proposed a new model for measuring transitional progress a couple of years ago. It examines the degree of development of market-supporting institutions that are systematized in four basic sectors: corporate, energy, infrastructure and financial. The actual state of affairs in these sectors is shown by descriptive estimates, defining the lag of transition to developed market economies as large, medium, small and negligible. Applying the methodology which attributes the numerical values 1, 2, 3 and 4 to those descriptive estimates (Cerović & Nojković, 2011a), we will present the results for the Western Balkan countries in the period 2012-2014.

Table 9 Market supporting institutions - sectoral assessments (2012)

Country	Corporate	Energy	Infrastructure	Finance	Total	Rank
Albania	8	6	5	8	27	4
Bosnia and Herzegovina	7	3	5	8	23	6
Croatia	11	7	10	13	41	1
Macedonia	9	6	6	8	29	3
Montenegro	7	6	5	9	27	4
Serbia	8	4	7	11	30	2

Source: calculation of authors according to EBRD (2012) and Cerović&Nojković (2011a)

Table 10 Market supporting institutions - sectoral assessments (2013)

Country	Corporate	Energy	Infrastructure	Finance	Total	Rank
Albania	7	6	6	7	26	4
Bosnia and Herzegovina	6	3	7	8	24	6
Croatia	11	6	9	12	38	1
Macedonia	8	5	7	8	28	3
Montenegro	9	5	8	8	30	2
Serbia	7	4	7	8	26	4

Source: calculation of authors according to EBRD (2013) and Cerović&Nojković (2011a)

Table 11 Market supporting institutions - sectoral assessments (2014)

Country	Corporate	Energy	Infrastructure	Finance	Total	Rank
Albania	8	6	5	8	27	5
Bosnia and Herzegovina	7	3	7	8	25	6
Croatia	11	7	10	13	41	1
Macedonia	9	6	6	8	29	3
Montenegro	8	7	5	9	29	3
Serbia	8	4	7	11	30	2

Source: calculation of authors according to EBRD (2014) and Cerović & Nojković (2011a)

Based on the data in Tables 9-11, we note that only Croatia has made substantial progress in institutional reforms, although its backlog in relation to developed market economies is significant. In fact, if in each of the 16 sub-sectors this lagging behind was negligible, the total score would be 64; in the case of Croatia, it is 41, which is 64% of institutional development level of advanced market economies. Although such a measurement of transition progress is not in line with the previously used EBRD's transition indicators, their findings are similar and troubling when considering the slow pace of reform changes in the Western Balkans. Based on the data presented in Table 7, the average value of the deeper reform indicator for the five Western Balkan countries in a comparably similar position for 2010 is 2.33; according to the already applied method of calculation, it is equivalent to the implementation of less than 40% of the deeper reforms. Based on the data in Table 11, we calculate the average score in 2014 for the same group of countries - 28, which is almost equivalent to the medium lag behind institutionalized economies (roughly 44% of realized institutional reforms).

Having reviewed its transition concept last year, EBRD decided to adopt an updated interpretation of transition focusing on key qualities of sustainable market economy. This conceptual shift caused announcing of new methodology and new set of scores that are not comparable with previously used sectoral scores. That is why we excluded data for the year 2017 from our study and included EBRD reports from years 2015 and 2016 which have kept the sectoral assessment approach. It means that progress in transition is expressed through reducing sectors' and sub-sectors' gaps in regard to developed market economies. However, some methodological adjustments were made: a respect to the sustainable development logic has imposed separate and more detailed monitoring of the "sustainability" component; instead of sectoral-level transition indicators that provide an insight into the state of market supporting institutions, the EBRD publishes an overview of the results achieved through traditional scores (ranging from 1 to 4+), which comprehensively assess challenges ahead (by merging market structures and market supporting institutions within existing framework).

For the sake of comparability with tables 9-11, we decided to extract from the consolidated data those related to the market supporting institutions. This was only feasible if we strictly followed the EBRD's methodological notes on weights attached to the market structure and the market-supporting institutions for each of the 15 sub-sectors, plus those concerning "sustainability" component. In order to determine whether the lag in each of the subsectors is large, medium, small or negligible, the obtained score should be related to the maximum value that could be achieved (these maximums are of course different, since the weight attributed either to the market structure or to institutions are diversed). For exampe: in the case of Albania, the transition score for the subsector agribusiness is 3- (numerically it is equivalent to 2.67); since the EBRD methodology suggests that both market structure and institutions contribute evenly (50%:50%) it follows that the score representing contribution of market supporting institutions to the agribusiness sub-sector is 1.335 (i.e. half of 2.67). The minimum value of this score may be 0.5 whereas its maximum is 2.165 (half of the minimum (1) and maximum total score (4.33), respectively). The gap is considered to be large if the analyzed country did not realize at least 50% of the maximum score (if the score is below 1.0825); medium gap exists if less than 70% of the maximum is achieved (the score below 1.52), the small backlog is represented by values between 70 and 90% of the maximum (the score between 1.52 and 1.95), and the lag is negligible if the result in the analyzed segment exceeds 90% of the maximum score. As we have already mentioned, the following numerical values can be attributed to these lags: 1 - large; 2 - medium; 3 - small and 4 – negligible gap. In other words, a score of 1.335 "brings" 2 out of 9 points "earned" by corporate sector in Albania. The same method of calculation is applied to each of 16 sub-sectors in every country of the Western Balkan and the results are presented in tables 12 and 13.

Table 12 Market supporting institutions - sectoral assessments (2015)

Country	Corporate	Energy	Infrastructure	Finance	Total	Rank
Albania	9	6	7	7	29	4
Bosnia and Herzegovina	6	4	8	8	26	6
Croatia	12	7	11	13	43	1
Macedonia	9	5	8	8	30	3
Montenegro	9	7	7	8	31	2
Serbia	8	5	8	8	29	4

Source: calculation of authors according to EBRD (2015)

Table 13 Market supporting institutions - sectoral assessments (2016)

Country	Corporate	Energy	Infrastructure	Finance	Total	Rank
Albania	9	6	7	7	29	5
Bosnia and Herzegovina	6	4	7	8	25	6
Croatia	12	7	11	13	43	1
Macedonia	9	5	8	8	30	4
Montenegro	9	7	7	8	31	2
Serbia	9	6	8	8	31	2

Source: calculation of authors according to EBRD (2016)

According to estimated institutional support to the market economy Croatia crossed two thirds (67%) of the way to the goal - reaching the status of institutionally developed

economies (Tables 12-13). Still, its lagging behind advanced countries confirms that the development of institutions is neither sufficient nor the basic growth factor (Chang, 2011). And yet, the finding that Croatia kept the distance from the rest of the region suggests that it is easier to make transition advancement under better institutional preconditions. Based on the data in tables 12 and 13, once again we calculate the average scores in 2015 and 2016 for Western Balkans (Croatia excluding). They are 29 and 29.2, representing 45.3% and 45.6% of realized institutional reforms, respectively. Moreover, results for the year 2015 correspond to the claims pointing out that gaps in relation to the new EU members are most pronounced in Serbia, Albania and BiH, and less significant in the case of Montenegro and Macedonia (IMF, 2015).

Having in mind that during last five years institutional changes in five Western Balkan countries did not vary considerably in terms of their pace and magnitude, the region seems to be stuck in transition. Therefore, in the case of unchanged dynamics of the transformation of these countries, and assuming that other economies maintain the current level of institutional development, the finalization of these processes could last till the middle of this century. And certainly, Western Balkan economies would not be comforted by the fact that even EBRD admits "there is no such thing as a "standard" market economy and no single way of getting there" (EBRD, 2017, p. 107).

CONCLUSION

Transition project's implementation in the case of advanced transition countries, new EU member states, lasted for almost two decades, which is far longer than the prediction of the pessimistic forecasters announced after the beginning of the transformation of centrally-planned economies into market economies. Using traditional indicators of the EBRD that measures progress in transition, we have found out that, over the same period of time, the countries of the Western Balkans (Croatia excluding) on average crossed a little bit more than half of the transitional path. Analyzing the extent to which they were implementing programs recommended by the theoreticians (and experienced by new EU members) we realized the following: the Western Balkan countries have respected the same sequence of reform's steps, and to a certain extent uniform dynamics regarding the so-called "the first wave of reforms"; although it is thought that in this region the transition began with a decade of delays, it is noticeable that the processes of liberalization of prices, trade and exchange rate, as well as small scale privatization were mostly and relatively well finished at the beginning of this century (by accelerating refoms and dynamizing changes in the period 2000-2002). What is following thereafter is a period of reforms' slowing down, which is characterized by their facing with some postponed problems (like large scale privatization) as well as the challenges imposed by barely initiated deeper (institutional) reforms. Having compared the results achieved by these countries with regard to the indicator of deeper reforms by 2010, with the findings obtained by applying the new EBRD model for measuring transition progress during the period 2012-2016, we have concluded that institutional adjustments were and still are going on slowly: during observed period achieved results are modest, since till the end of 2016 approximately 45% of reforms in this domain have been implemented. If such dynamics continues, there is no room for optimism about sooner ending of their transition.

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NA PRAGU "PUNOLETSTVA": TRANZICIONI PROPUSTI ZEMALJA ZAPADNOG BALKANA

Nakon otpočinjanja transformacije centralno-planskih u tržišne privrede, implementacija tranzicionog projekta u slučaju novih članica EU (ukupno 10 zemalja koje su se pridružile kroz proširenja iz 2004. i 2007. godine) trajala je skoro dve decenije, daleko duže od predviđanja najvećih pesimista. Za razliku od gore pomenutih, zemlje Zapadnog Balkana (ukupno 6), sa izuzetkom Hrvatske (koja je članica EU od 2013. godine), nemaju ni kontinuitet ni adekvatan uspeh u sprovođenju reformskih procesa. Zato njihova tranzicija i dalje ima neizvesan ishod i nepredvidljivo trajanje. Da bismo utvrdili do koje su faze manje razvijene zemlje stigle u trenutku kada su one naprednije gotovo završile svoju tranziciju, koristićemo pokazatelje EBRD-a. Zatim ćemo objasniti faze tranzicione dinamike Zapadnog Balkana (reforme prvog talasa i dublje reforme) kako bismo pokazali da su ove ekonomije delimično pratile reformski obrazac naprednih privreda, ostavljajući segment dubljih reformi nedovršenim. Konačno, oslanjajući se na novi model za merenje tranzicionog napretka (koji EBRD koristi od 2011. godine), pokušaćemo da procenimo koji je deo predviđene trajektorije Zapadni Balkan zaista prešao na svom putu ka tranzicionom "punoletstvu".

Ključne reči: *tranzicija, Zapadni Balkan, strukturne reforme*

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KEY PREDICTORS OF INTERNAL SUPERVISION OF FINANCIAL STATEMENTS

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Abstract. *Investors and other external stakeholders have more confidence in the reliability and quality of financial statements if they have information that entities continuously carry out preventive and comprehensive internal supervision of financial statements. The research was carried out with the aim of identifying factors that have a direct impact on the internal supervision of financial statements. As the key predictors of the internal supervision of financial statements in the Republic of Serbia, the category of entity, the internal supervision of the compliance of financial statements with the regulations, and the internal supervision of the preparation of financial statements have been identified. Two regression models are also defined that best describe the relationship between the observed phenomena.*

Key words: *Supervision, financial statements, compliance, preparation, regulations*.

JEL Classification: M41, M42, M48.

INTRODUCTION

Interpretation of supervision is best described by Isaac (1951, 7-9), who after making an etymologically sharp demarcation between the terms of audit, supervision, surplus and inspection, concluded that they have to complement each other in order to achieve adequate supervision of entity. Therefore, Isaac incorporates audit, supervision and inspection under the concept of "supervision". In this paper, supervision will be observed under this comprehensive term, but more closely monitored – from the aspect of supervision of financial statements.

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Although the supervision of financial statements significantly improves their quality and supervision is the best basis for risk management in the financial reporting domain, absolute assurance in the reliability and quality of financial statements is not possible, because supervision is a process whose planning, creation, implementation, monitoring and reporting is under the influence of a human factor. Since people make the most important element of the supervision environment, assurances can be qualified exclusively as "reasonable" (Dmitrović & Milutinović, 2011). This is the initial deficiency of the supervision over financial statements.

Within the framework of this paper, internal supervision (of the preparation of financial statements, and of the compliance of financial statements with regulations) is the process carried out by internal bodies in entity, such as supervisory boards, internal auditors, and others. In the scope of this paper, external supervision (of the preparation of financial statements, and of the compliance of financial statements with regulations) is the process carried out by the government's supervisory and regulatory bodies in the field of accounting, which include: Department for Financial System of the Ministry of Finance, The National Commission for Accounting, and Tax Administration (Milutinović & Medved, 2017, pp. 102-104). External supervision in the questionnaire is defined as an oversight performed by an external body outside entity, without being an external auditor.

The research with the aim of identifying the predictors of internal supervision of financial statements in the Republic of Serbia, according to the authors' knowledge, has not been carried out so far in domicile conditions. The specific goal of the research in this paper could be set in the form of two research questions: What factors predict the probability that internal bodies in entity will monitor the preparation of financial statements? What factors predict the probability that internal bodies in entity will monitor the compliance of financial statements with regulations?

The results of the research are significant for the reason that the creators of the national financial reporting system and the regulatory framework can be in this way informed about the "situation on the ground" through the results presented in this paper. Timely feedback from practice is a key determinant of well-created both legislation and internal regulation, and this research is not significant only for the above-mentioned creators, but also for members of the accounting profession, supervisory authorities and management bodies in entity.

Originality of paper is reflected in the fact that similar studies have not yet been implemented in domestic practice. The importance of the research is undeniable, given the fact that the area of financial reporting is very dynamic in terms of frequent changes of regulations, both professional and legislation regulation. In order to timely observe novelties and effects of changes in this area, constant research is necessary, especially in the domestic practice as it unjustifiably lacks this type of research. On the other hand, research results are an important source of information before the planned improvement of the financial reporting system and the improvement of existing regulations in the Republic of Serbia.

The limitation of the paper of an objective nature is the lack of similar research in the country and the region in order to do parallel analysis and get a wider picture of this problem. The limitation of the paper of a subjective nature is a limited number of initial factors that have been taken into account in the research in order to identify the predictors.

1. Literature Review

The responsibility for the preparation and publication of financial statements, in accordance with the Directive 2013/34/EU (Official Journal of the EU, 2013), is on members of administrative, management and supervisory bodies of entity in the form of the so-called collective responsibility. On the other hand, according to the Law on Accounting (Official Gazette of RS, 2013), the legal representative, the managing authority, the supervisory body and the person responsible for keeping business books and drawing up financial statements are responsibility holders in domicile conditions. Taking into account that both in professional and legislation regulation responsibility holders are the supervisory authorities, the focus in the paper is on the internal supervision – supervision carried out by the internal bodies of entity – to the internal supervision of the preparation of financial statements, on the one hand, and the internal supervision of the compliance of financial statements with the regulations, on the other hand.

There were several studies in past four years in Asia about factors affecting internal audit or internal control over financial reporting. Alzeban and Gwilliam (2014) investigated factors that may influence internal audit effectiveness within public sector organizations in Saudi Arabia, a nation just beginning to use internal audits. Their study employs several measures of internal audit effectiveness, including the department's perceived ability to plan, to improve the organization's productivity, to assess the consistency of results with established objectives and goals, to implement internal audit recommendations, to evaluate and improve risk management, to evaluate internal control systems, and to provide recommendations for improvement. Furthermore, their study provides evidence as to the manner in which competence, size of the internal audit department, relationship between internal and external auditors, independence of internal audit, and extent of management support for the internal audit function, contribute to perceived effectiveness of the internal audit function in the Saudi public sector. Dejnaronk, Little, Mujtaba and McClelland (2015) were the first ones that examined the factors influencing the effectiveness of internal audit function in Thailand. Their study included seven influencing variables, which were useful in Thai companies: objectivity, independence, top management support, risk-based audit plan, compliance with IIA standards (*International Standards for the Professional Practice of Internal Auditing* by The Institute of Internal Auditors), communication and reporting, and quality assurance and improvement program. Three influencing factors found are compliance with IIA standards, risk-based audit plan, and quality assurance and improvement program. Yazawa (2015) examined the incentive factors for the (non-)disclosure of material weakness in internal control over financial reporting in Japanese companies. The results indicate that companies that do not disclose material weakness are characterized by longer management tenure, large auditors, lower audit fees, larger boards of directors, fewer outside directors, and greater involvement of their main banks. In addition, non-disclosure of material weakness at the company level is associated with longer management tenure, a larger management shareholding, and greater main bank involvement, whereas non-disclosure of material weakness at the account-specific level is associated with large auditors, lower audit fees, higher non-audit fees, and greater main bank involvement. These results suggest that the assessment and audit process of internal control systems in Japan is sensitive to (non-)disclosure incentives for managements and auditors.

Some of the studies conducted in America are summarized below. Gramling, O'Donnell and Vandervelde (2013) examined how different types of audit evidence accumulated during the audit influence auditor judgment of internal control over financial reporting operating effectiveness and about whether an identified control deficiency is a material weakness in internal control over financial reporting. They experimentally examined audit managers' and partners' assessments of internal control over financial reporting operating effectiveness and judgments of whether a control deficiency is a material weakness to determine the influence of the presence of: (1) a material weakness unrelated to the deficiency being assessed, and (2) a known misstatement associated with the identified control deficiency. Results suggest that the presence of either an unrelated material weakness or a known misstatement influences the assessed operating effectiveness of an internal control and the likelihood of a material weakness assessment. Lin, Wang, Chiou and Huang (2014) find that CEOs with higher ownership, longer tenure, and younger age are significantly associated with a material internal control weakness disclosure under Sarbanes-Oxley Section 404 (SOX 404). Their results demonstrate that entrenchment and age may affect CEOs' behavior in response to the SOX 404 internal control requirements. This study points out that CEO entrenchment and age are likely to affect the strength of internal control mechanisms. Christ, Masli, Sharp and Wood (2015) find that companies that use a rotational staffing model for the internal audit function (systematically rotate their internal auditors into management positions outside of internal audit) have significantly lower financial reporting quality than companies that do not. Clinton, Pinello and Skaife (2014) investigated consequences of ineffective internal control for an important class of financial statement users and suggested the required reporting on the effectiveness of internal control is beneficial to understanding the properties of analysts' forecasts. They find that analysts provide less accurate forecasts and there is greater forecast dispersion for firms with ineffective internal control. They also find that firms that disclose internal control problems have less analyst coverage and that analyst following declines after the material weakness in internal control is disclosed.

The latest research was conducted in Africa. Bruwer, Coetzee and Meiring (2017) determined the empirical relationships that exist between two of the elements of a sound internal control system, namely internal control activities and managerial conduct, and the perceived sustainability of South African small, medium and micro enterprises (SMMEs). They find out that there exist positive statistically significant relationships between general management skills and the perceived sustainability of South African SMMEs. Study indicates that internal control activities and managerial conduct had a limited influence on the perceived sustainability of South African SMMEs.

2. RESEARCH METHODOLOGY AND HYPOTHESES

The research was directed at all employees in the accounting and/or auditing positions in the private sector of the Republic of Serbia, regardless of their professional title and years of experience. The sample meets all the requirements of a representative sample and consists of 338 (first regression model) or 336 respondents (second regression model). A random sample in the research is considered an ideal sample. The sample in this study was selected randomly, because every member of the basic set had the same chances, i.e. the same probability of being selected into the sample. In addition, the selection of each

member of the sample was independent, i.e. the selection of one member did not influence the selection of any other member of the sample. The study was conducted during 2014-2015 and the research was completed in 2016.

The research faced the same problems that usually appear in research of financial reporting: research cannot be conducted in conditions of a supervision led experiment, it is impossible to include all variables and identify all the factors that influence the research problem, the research sample is often small, and any research, including one in the area of financial research, comprises mistakes, both those that can be predicted before the start of the research and mistakes that cannot be predicted. However, these problems have not significantly affected the independence and regularity of the research, nor the credibility and presentation capacity of the obtained results.

Two hypotheses have been tested in this paper. The first hypothesis (H1) that is the subject of proof in the paper reads: Internal supervision of the preparation of financial statements (ISPFS) is directly influenced by the category of entity, external and internal supervision of compliance of financial statements with regulations and external supervision of the preparation of financial statements. The first hypothesis will be proved using the following auxiliary hypotheses:

H1a: The category of entity has a direct negative impact on internal supervision of the preparation of financial statements.

H1b: Performing external supervision of compliance of financial statements with regulations has a direct positive impact on internal supervision of the preparation of financial statements.

H1c: Performing internal supervision of compliance of financial statements with regulations has a direct positive impact on internal supervision of the preparation of financial statements.

H1d: Performing external supervision of the preparation of financial statements has a direct positive impact on internal supervision of the preparation of financial statements.

The second hypothesis (H2) that is the subject of proof in the paper reads: Internal supervision of the compliance of financial statements with regulations is directly influenced by the category of entity, external and internal supervision of the preparation of financial statements and external supervision of the compliance of financial statements with regulations. The second hypothesis will be proved using the following auxiliary hypotheses:

H2a: The category of entity has a direct negative impact on internal supervision of the compliance of financial statements with regulations.

H2b: Performing external supervision of the preparation of financial statements has a direct positive impact on internal supervision of the compliance of financial statements with regulations.

H2c: Performing internal supervision of the preparation of financial statements has a direct positive impact on internal supervision of the compliance of financial statements with regulations.

H2d: Performing external supervision of the compliance of financial statements with regulations has a direct positive influence on internal supervision of the compliance of financial statements with regulations.

To test hypotheses in order to prove them, direct logistic regression will be used. Then, regression models that best describe the relationship between phenomena will be determined. Based on these models, values of dependent variables ($\hat{y}_1$, $\hat{y}_2$) will be evaluated and predicted for selected values of predictor (independent) variables ($x_1 ... x_n$). Dependent variables are: $\hat{y}_1$ – internal supervision of preparation of financial statements (ISPFS hereinafter) and $\hat{y}_2$ – internal

supervision of compliance of financial statements with regulations (ISCFSR hereinafter). Predictor variables that were taken into consideration are: category of entity, external/internal supervision of compliance of financial statements with regulations and external/internal supervision of preparation of financial statements.

3. FINDINGS AND DISCUSSION

3.1. Predictors of internal supervision of preparation of financial statements

Table 1 shows the predictors included in the first model as well as the values that are taken with the frequencies. Number of analyzed cases is 338.

Table 1 Categorical Variables Codings #1

		Frequency	Parameter coding				
			(1)	(2)	(3)	(4)	(5)
The category of entity	Large IFRS	38	.000	.000	.000	.000	.000
	Medium-sized IFRS	44	1.000	.000	.000	.000	.000
	Medium IFRS SMEs	15	.000	1.000	.000	.000	.000
	Small IFRS SMEs	74	.000	.000	1.000	.000	.000
	Small RB[2]	29	.000	.000	.000	1.000	.000
	Micro	138	.000	.000	.000	.000	1.000
External supervision of compliance of FS with regulations (ESCFSR)	No	263	.000				
	Yes	75	1.000				
Internal supervision of compliance of FS with regulations (ISCFSR)	No	205	.000				
	Yes	133	1.000				
External supervision of the preparation of FS (ESPFS)	No	263	.000				
	Yes	75	1.000				

Source: authors' calculation

The Goodness of Fit Test in Table 2 shows how well the model predicts results. The obtained results are very significant, since the significance takes values $p<0.0005$. The model with the selected set of variables shown in Table 1 provides better than the initial model (without any independent variables) obtained assuming that ISPFS is never performed. The hi-square indicator is 236.57 with 8 degrees of freedom.

Table 2 Omnibus Tests of Model Coefficients #1

		Chi-square	df	Sig.
Step 1	Step	236.566	8	.000
	Block	236.566	8	.000
	Model	236.566	8	.000

Source: authors' calculation

[2] *Rulebook on the Manner of Recognition, Measurement, Presentation and Disclosure of Positions in the Individual Financial Statements of Micro and Other Entities*, Official Gazette of RS, No. 118 of December 30th 2013, 95 of September 5th 2014 (RB hereinafter).

The Hosmer and Lemeshow Goodness of Fit Test in Table 3 is IBM SPSS's most reliable model prediction quality test. The model is supported because significance takes values p>0.05. The H-square for Hosmer and Lemeshow Test is 2.43 with a significance of 0.88.

Table 3 Hosmer and Lemeshow Test #1

Step	Chi-square	df	Sig.
1	2.428	6	.876

Source: authors' calculation

Table 4 shows the values of Cox&Snell R Square and Nagelkerke R Square. The model, or the set of variables, explains between 50.3% and 67.8% of the variance of the dependent variable.

Table 4 Model Summary #1

Step	-2 Log likelihood	Cox&Snell R Square	Nagelkerke R Square
1	221.294	.503	.678

Source: authors' calculation

Table 5 shows that the model, or the set of variables, correctly classifies 89.3% of all cases that is better than 58.9%, which represents value of this indicator before including predictor variables in the model. Positive and negative predictive values are calculated on the basis of data in Table 5. The positive predictive value shows that the model correctly selected 88.72% of respondents who answered that ISPFS performs in entity where they are employed. The negative predictive value shows that the model correctly selected 89.76% of respondents who answered that ISPFS does not perform in entity where they are employed.

Table 5 Classification Table #1

Step	Observed		Predicted		
			Internal supervision of preparation of FS		Percentage Correct
			No	Yes	
1	Internal supervision of preparation of FS	No	184	15	92.5
		Yes	21	118	84.9
	Overall Percentage				89.3

Source: authors' calculation

Table 6 shows a variable that significantly contributes to predictive capabilities of the model. The main factor influencing whether ISPFS will be performed is ISCFSR. Entities that perform ISCFSR are most likely to have ISPFS also.

Table 6 Variables in the Equation #1

		β	S.E.	Wald	df	Sig.	Exp(β)	95% C.I.for EXP(β)	
								Lower	Upper
Step 1	Large IFRS	-.443	.728	.370	1	.543	.642	.154	2.675
	Medium-sized IFRS	-.213	.949	.051	1	.822	.808	.126	5.186
	Medium IFRS SMEs	-.411	.666	.380	1	.538	.663	.180	2.449
	Small IFRS SMEs	-.176	.818	.047	1	.829	.838	.169	4.165
	Small RB	-.856	.629	1.856	1	.173	.425	.124	1.456
	ESPFS	.295	.632	.218	1	.641	1.343	.389	4.635
	ESCFSR	.699	.633	1.220	1	.269	2.012	.582	6.960
	ISCFSR	4.021	.365	121.32	1	.000	55.765	27.265	114.056
	Constant	-1.792	.599	8.943	1	.003	.167		

Source: authors' calculation

Based on the obtained values of the β coefficient, the regression equation of the first model is:

$$\hat{y}_1 = -1.792 + 4.021x_1 \quad (1)$$

Legend:

$\hat{y}_1$ – the expected value of the dependent variable (ISPFS)

x_1 – predictive variable (ISCFSR)

A direct logistic regression was conducted to assess the impact of several factors on the likelihood that ISPFS performs in entity. The model contained four predictors (independent variables) and was statistically significant, c^2 (8, *N=338*) = 236.57, p<0.001, indicating that the model distinguishes respondents who responded and those who did not respond that ISPFS performs in entity where they are employed. The model explains as a whole between 50.3% (Cox&Snell's r^2) and 67.8% (Nagelkerke's r^2) variance of dependent variables and accurately classifies 89.3% of cases. The strongest predictor of the responses that there is the performance of ISPFS in entity (see Table 6) was the performance of ISCFSR, whose quotient of probability is 55.77. It shows that respondents from entity that performs ISCFSR over 55 times more often answer with "yes" on the question about the performance of ISPFS in contrast to respondents from entity that does not perform ISCFSR, with all other equal factors in the model.

3.2. Predictors of internal supervision of the compliance of financial statements with regulations

Table 7 shows the predictors included in the second model as well as the values that are taken with the frequencies. Number of analyzed cases is 336.

The Goodness of Fit Test in Table 8 shows how well the model predicts results. The obtained results are very significant (p<0.0005) and the model with selected set of variables shown in Table 7 predicts better than the initial model (without any independent variables) obtained assuming that ISCFSR is never performed. The hi-square indicator is 248.54 with 8 degrees of freedom.

Table 7 Categorical Variables Codings #2

		Frequency	Parameter coding				
			(1)	(2)	(3)	(4)	(5)
The category of entity	Large IFRS	36	.000	.000	.000	.000	.000
	Medium-sized IFRS	44	1.000	.000	.000	.000	.000
	Medium IFRS SMEs	15	.000	1.000	.000	.000	.000
	Small IFRS SMEs	74	.000	.000	1.000	.000	.000
	Small RB	29	.000	.000	.000	1.000	.000
	Micro	138	.000	.000	.000	.000	1.000
External supervision of the preparation of FS (ESPFS)	No	263	.000				
	Yes	73	1.000				
Internal supervision of the preparation of FS (ISPFS)	No	199	.000				
	Yes	137	1.000				
External supervision of compliance of FS with regulations (ESCFSR)	No	263	.000				
	Yes	73	1.000				

Source: authors' calculation

Table 8 Omnibus Tests of Model Coefficients #2

		Chi-square	df	Sig.
Step 1	Step	248.54	8	.000
	Block	248.54	8	.000
	Model	248.54	8	.000

Source: authors' calculation

The model is supported (p>0.05) according to results from Table 9. The H-square for Hosmer and Lemeshow Test is 2.84 with a significance of 0.9.

Table 9 Hosmer and Lemeshow Test #2

Step	Chi-square	df	Sig.
1	2.837	7	.900

Source: authors' calculation

The model explains between 52.3% and 70.8% of the variance of the dependent variable (see Table 10).

Table 10 Model Summary #2

Step	-2 Log likelihood	Cox&Snell R Square	Nagelkerke R Square
1	202.565	.523	.708

Source: authors' calculation

Table 11 shows that the model correctly classifies 89.9% of all cases, that is better than 60.4%, which represents value of this indicator before including predictor variables in the model. Positive and negative predictive values are calculated on the basis of data in Table 11. The positive predictive value shows that the model correctly selected 86.13% of respondents who answered that ISCFSR performs in entity where they are employed. The

negative predictive value shows that the model correctly selected 92.46% of respondents who answered that ISCFSR does not perform in entity where they are employed.

Table 11 Classification Table #2

Step	Observed		Predicted		
			Internal supervision of compliance of FS with regulations		Percentage Correct
			No	Yes	
1	Internal super. of compliance of FS with regulations	No	184	19	90.6
		Yes	15	118	88.7
	Overall Percentage				89.9

Source: authors' calculation

Table 12 shows variables that significantly contribute to predictive capabilities of the model. The main factors influencing whether ISCFSR will be performed are:

- The category of entity: the change in the category of entity for one (from larger to smaller entity, or from the one that uses IFRS to the other that does not use IFRS) reduces the likelihood of performing ISCFSR. The smaller entity has lower likelihood of performing ISCFSR, and vice versa. Entities that use IFRS have higher likelihood of performing ISCFSR than those which do not use IFRS.
- Internal supervision of the preparation of financial statements: entities that perform ISPFS are most likely to perform ISCFSR. It means, respondents from entities with ISPFS answer to the greatest extent with "yes" on the question of whether ISCFSR is performed.

Table 12 Variables in the Equation #2

		β	S.E.	Wald	df	Sig.	Exp(β)	95% C.I.for EXP(β)	
								Lower	Upper
Step 1	Large IFRS	-1.592	.785	4.114	1	.043	.204	.044	.948
	Medium-sized IFRS	-2.075	1.019	4.143	1	.042	.126	.017	.926
	Medium IFRS SMEs	-1.355	.710	3.642	1	.056	.258	.064	1.037
	Small IFRS SMEs	-1.545	.867	3.175	1	.075	.213	.039	1.167
	Small RB	-1.882	.676	7.757	1	.005	.152	.040	.573
	ESCFSR	.777	.646	1.448	1	.229	2.175	.614	7.712
	ESPFS	.361	.650	.308	1	.579	1.434	.401	5.130
	ISPFS	4.173	.382	119.61	1	.000	64.912	30.728	137.124
	Constant	-1.182	.607	3.785	1	.052	.307		

Source: authors' calculation

Based on the obtained values of the β coefficient, the regression equation of the second model is:

$$\hat{y}_2 = -1.182 - 1.592x_1 - 2.075x_2 - 1.882x_3 + 4.173x_4 \quad (2)$$

Legend:

$\hat{y}_2$ – the expected value of the dependent variable (ISCFSR)

x_1, x_2, x_3, x_4 – predictive variables from Table 12.

A direct logistic regression was conducted to assess the impact of several factors on the likelihood that ISCFSR performs in entity. The model contained four predictors (independent variables) and was statistically significant, c^2 (8, *N=336*) = 248.54, p<0.001, indicating that the model distinguishes respondents who responded and those who did not respond that ISCFSR performs in entity where they are employed. The model explains as a whole between 52.3% (Cox&Snell's r^2) and 70.8% (Nagelkerke's r^2) variance of dependent variables and accurately classifies 89.9% of cases. The strongest predictor of the responses that there is the performance of ISPFS in entity (see Table 12) was the performance of ISCFSR, whose quotient of probability is 64.91. It shows that respondents from entity that performs ISPFS almost 65 times more often answer with "yes" on the question about the performance of ISCFSR in contrast to respondents from entity that does not perform ISPFS, with all other equal factors in the model.

CONCLUSION

Both regression models are supported, statistically significant and accurately classified over 89% of cases. The variable that significantly contributes to the predictive possibilities of the first regression model is the internal supervision of compliance of financial statements with regulations, while the remaining three variables do not have a significant contribution to the model. Variables that significantly contribute to the predictive possibilities of the second regression model are the size of an entity and internal supervision of preparation of financial statements, while the remaining two variables do not have a significant contribution to the model.

The above results provide an answer to the research questions raised at the beginning of this paper. The key factor that predicts the probability that internal bodies within an entity will perform supervision of preparation of financial statements is performance of internal supervision of compliance of financial statements with regulations. Key factors that predict the probability that internal bodies within an entity will perform supervision of compliance of financial statements with regulations are the category of entity and performance of internal supervision of preparation of financial statements.

Based on the analyzed results of the dependent variable $\hat{y}_1$, it can be concluded that the internal supervision of preparation of financial statements is under direct negative influence of the category of entity (the change in the category of entity for one – from the one that uses IFRS to the other one that does not use IFRS – reduces the likelihood of performing ISPFS), direct positive influence of both external and internal supervisions of compliance of financial statements with regulations and direct positive influence of external supervision of preparation of financial statements. According to the above, the first hypothesis was confirmed in its entirety. Based on the analyzed results of the dependent variable $\hat{y}_2$, it can be concluded that the internal supervision of compliance of financial statements with regulations is under direct negative influence of the category of entity (the change in the category of entity for one – from the one that uses IFRS to the other one that does not use IFRS – reduces the likelihood of performing ISCFSR), direct positive influence of both external and internal supervisions of preparation of financial statements and direct positive influence of external supervision of compliance of financial statements with regulations. According to the above, the second hypothesis was confirmed in its entirety. Such outcomes have resulted in the following conclusions.

Regulators and lawmakers should form team of experts constituted of professional accountants and auditors who would create a quality legal framework and develop instruments for the financial reporting process supervision. The Sarbanes-Oxley Act represents an excellent example of successful state regulation of financial reporting. In the Republic of Serbia, state supervision in this area is desirable, but it must be carefully thought out in order to avoid overlapping and interfering with the competencies of state authorities and internal bodies in entities. The first preferred solution would be to define a model by which the management of entity would be entrusted with the obligation to perform an assessment of the effectiveness of internal supervision, and that this assessment is subsequently verified by the external supervise bodies – Department for Financial System of the Ministry of Finance, The National Commission for Accounting and Tax Administration. The second preferred solution would be the introduction of practice of public disclosure on the functioning and success of the internal supervision system in entity, as has long existed in the countries of the Anglo-Saxon accounting model. This solution would increase the transparency of financial reporting, which would have a long-term impact on increasing its quality.

On the other hand, the research results have shown that entities applying professional accounting regulations tend to organize internal supervision of compliance of financial statements with regulations, in contrast to entities that do not use IFRSs or IFRS for SMEs. This leads to the proposal of the third preferred solution that is the continuation of the convergence of legislation with professional regulation and the work on dissemination of the application of IFRSs and IFRS for SMEs among entities.

Our results should be of interest to management, professional accountants and auditors, state regulators, lawmakers, standard setters, external supervise bodies and internal supervise bodies. Our research provides insights into key factors that management and internal supervise bodies are likely considering when assessing the need for implementation of internal supervision. After the expected changes in the legislation regulation, the research is planned to be repeated. The aim of the future research will be to obtain new regression models in order to test existing regression models for the purpose of passing a conclusion on the success of the implemented changes in the legal regulations in the Republic of Serbia. If the findings demonstrated in this research are in contrast to what was intended by the state regulators and lawmakers, they may want to consider the results of repeated research in order to test new legal regulations.

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KLJUČNI PREDIKTORI INTERNOG NADZORA FINANSIJSKIH IZVEŠTAJA

Investitori i ostali eksterni stejkholderi imaju više poverenja u pouzdanost i kvalitet finansijskih izveštaja ukoliko raspolažu informacijama da se u pravnom licu kontinuirano obavlja preventivni i sveobuhvatni interni nadzor finansijskih izveštaja. Istraživanje je izvršeno s ciljem da se prepoznaju faktori koji imaju direktni uticaj na odvijanje internog nadzora finansijskih izveštaja. Kao ključni prediktori internog nadzora finansijskih izveštaja u Republici Srbiji identifikovani su kategorija pravnog lica, sprovođenje internog nadzora usklađenosti finansijskih izveštaja sa regulativom i sprovođenje internog nadzora pripreme finansijskih izveštaja. Definisana su i dva regresiona modela koja najbolje opisuju vezu između posmatranih pojava.

Ključne reči: *nadzor, finansijski izveštaji, usklađenost, priprema, regulativa*.

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Review Paper

TQM AND KAIZEN FOR CONTINUOUS QUALITY MANAGEMENT

UDC 005.6

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Abstract. *There is almost a generally accepted view that quality is one of the most important factors of company competitiveness. For this reason, quality needs to be managed. In response to the need for management and requirements for high quality, theory and practice have developed several concepts. Total Quality Management (TQM) and Kaizen are two basic concepts directly involved in continuous improvement of product and process quality in the company, aimed at achieving positive transformation in the minds and actions of employees and managers. The focus of this paper is the analysis of the mentioned concepts and their contribution to the program of continuous quality improvement. Hence, the goal set by this paper is to review the basic characteristics of TQM and Kaizen, and, on the basis of a comparative analysis, draw conclusion about the distinction between them in terms of essence and practical application in the field of quality management.*

Key words: *quality, continuous improvement, concept, Total Quality Management, Kaizen*

JEL Classification: M21, M41

INTRODUCTION

The end of the second millennium was characterized by dramatic changes in all spheres of life and work, and omnipresent globalization. Under the pressure of global competition, companies increasingly seek solutions and outputs in continuous improvement of their capacities and performance, in order to preserve and even improve their business and position on the globalized market. Rapid technological advancement, along with global competition, drives managers to produce products and deliver high-quality services at the

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lowest average cost (Domanović, 2016a, 474). That is, the key to success for many companies around the world is quality, so 21st century will with good reason be marked by quality and aspiration to establish higher standards. Quality is becoming one of the important aspects of company adaptation to environmental changes, and quality management is one of the most important tasks of company management. That is, improving and mastering quality is set as a priority task of management. One of the basic requirements of quality management is precisely the requirement for continuous improvement. To strive for continuous quality improvement means working to meet the wishes and expectations of customers by improving process capacities, to result in higher quality of products and/or services. Continuous improvement should be a daily task and practice, i.e. an integral part of the company's business philosophy motivated by competition, a desire to increase the level of quality and profit, and customer satisfaction. Hence, the subject of research in the paper is quality, as an important and key factor of business success, which cannot be viewed as isolated from other forms of improvement, such as maximizing quantitative results, as well as from changing the social and cultural dimension of company operations. Specifically, the subject of the analysis are *Total Quality Management* (*TQM*) and *Kaizen*, as two basic concepts that directly deal with continuous quality improvement of products and processes. The aim of the paper is to point out the importance of complementary application of these concepts, make their comparative analysis, and show their contribution to the program of continuous quality improvement.

Due to the similarity in practical application, it is necessary to point out the specifics of individual concepts. The key hypothesis in this paper is that only the integrated and complementary application of these two concepts will have synergistic effects on the quality of the overall company operations. Testing the starting hypothesis will rely on qualitative methodology, based on the study of relevant domestic and international literature involving theoretical generalization and experience of authors who explored the subject under consideration.

The structure of the paper is conceived in accordance with the defined subject, basic goal, and starting hypothesis. In the *first part*, the issue of quality management is considered. The *second part* includes the discussion about continuous quality improvement through Kaizen concept. The *third part* deals with the practical application of the *Kaizen* concept. The *fourth part* deals with the *TQM*. The effects and analysis of the practical application of *TQM* are given in *part five*. The last, *sixth part*, deals with a comparative analysis of two concepts and points to similarities and differences between them.

1. QUALITY MANAGEMENT – THE IMPERATIVE OF THE MODERN ERA

An important determinant of the competitive advantage of profit-oriented companies in modern market relations is the quality of products and services. Today, in professional literature and business practice, there is almost a general consensus that quality is one of the key strategic variables, which directly affects the level of customer satisfaction. Companies that achieve a high quality of their products can achieve greater profitability thanks to the ability to charge a higher price for higher quality. Quality is becoming a paradigm of competitiveness, bearing in mind the quality of products and services and the quality of business processes, and its realization requires coordination of work of all

employees, from direct executives to top management. Customer criterion becomes dominant when choosing a supplier and it does not represent luxury, as it used to be thought, but economical and adjusted response to the stated needs. It is becoming clear that quality is now more important than ever before. Hence, quality is globally considered to be the most important phenomenon of our age, with the tendency of its further emphasis and importance. Improving the process quality and maintaining an acceptable level of work quality are key success factors for each company.

Quality management, as a multidimensional approach to company management, is the basis for achieving and improving the quality of products as well as business processes. Quality management, as a business management subsystem, includes coordinated activities to guide and manage the organization from a quality point of view. It is a systemic mode of operation that guarantees that all company activities will take place in a planned manner. It implies the definition and implementation of the procedures necessary for the creation of products/services with the desired characteristics. In other words, it means managing the activities and their results. It is oriented towards creating a quality culture, delivering superior value to stakeholders, and creating a lasting competitive advantage in the company. Such an approach includes "increased product functionality, reliability, perseverance, and serviceability" (Domanović, 2016b, 252).

The quality management function, as part of the total quality management function in the company, is achieved through quality planning, operational quality management, quality control, and quality improvement. Quality planning is the first phase of quality management and a function that meets quality goals and tasks. Operational quality management is a function that relates to operational activities and procedures for achieving quality requirements. Internal and external quality system control involves quality assurance. Quality improvement is undertaken throughout the company in order to increase the efficiency and effectiveness of activities and improve the process in order to achieve success for both the company and customers. Establishing a quality system within the business system, through the process of continuous improvement, opens the way to the development of *TQM* and *Kaizen* concepts.

2. CONTINUOUOS QUALITY IMPROVEMENT THROUGH KAIZEN CONCEPT

Changes for the better are an inevitable and necessary path if the company wants to survive and succeed in conditions of competitive economic environment. Changes can be perceived as gradual or sudden. The key difference between how changes are understood in Japan and in the West lies in *Kaizen* concept. *Kaizen* history began in 1950, when Deming - the advocate and creator of *Kaizen* concept, began his work in Japan, first in Toyota, where the quality control cycle in production was first implemented. Deming's idea was to encourage managers to find opportunities for small product quality improvements and cost reduction in the production process. Small and continuous improvement, small steps and progress in productivity, quality, and cost reduction soon became apparent and significant. The Japanese named the total changes made and the resulting success *Kaizen*, with the general term having more meanings: *Kaizen* philosophy, costing, technique, and concept (Janjić, 2009, 108-110; Domanović, 2016b, 251-252).

Kaizen concept is part of a business philosophy in the field of business with a set of relevant components aimed at satisfying customer expectations (Rof, 2011, 151-167). The process of its implementation is simple, based on the sound mind of employees and no-high-cost approaches, providing in turn incremental progress by applying small innovation, payable in the long run (Janjić, Todorović & Jovanović, 2013, 226-230). One component of *Kaizen* concept is total quality control (see: Masaaki, 1986, 3-8). Applying *total quality control* (TQC) emphasizes quality in companies as a priority in relation to other goals. TQC emphasizes the role of human resources in producing a high-quality product. Building quality in people means building awareness of the existence of *Kaizen*, as an opportunity to identify and solve problems in companies. TQC can be defined as a systematic and statistical approach in implementing *Kaizen* concept and problem solving, which puts perfect quality of products and services in the first place, but also their continuous improvement, which is implemented at the level of the whole company and takes place everywhere in the company, from managers to employees (Janjić, 2009, 170-173).

In addition to the TQM,several other *Kaizen* concept components positively affect company performance by improving quality, reducing costs, increasing sales volume, and increasing profits. The effects of *Kaizen* concept in the business process are numerous, and for the addressed issue the impact on the product quality is the most important one. In order to achieve this effect, *Kaizen* concept should provide a positive impact on the development of cooperation, communication, and mutual harmony between employees, managers, experts, and executives, strengthening of business morale and establishing discipline in the workplace, more productive use of resources, labour, working area, and more economical use of material (Janjić, 2009, 185). Changes occurring through *Kaizen* are not large in scope, and are usually caused by workers themselves in their workplace (in gemba). Therefore, all workers need to be involved in the process of quality creation. Otherwise, there are defects that cause delays in the delivery of products/parts and require the existence of inventory to replace defective products or parts. Hence, the basis of *Kaizen* concept is quality in the first place, not profit. *Kaizen* concept puts emphasis on improving quality through small changes in processes and workplaces, and the result is reflected in reductions in different types of waste, lower operating costs, lower price, increased sales volume, and increased profits.

3. APPLICATION OF KAIZEN CONCEPT IN PRACTICE

Experience in applying *Kaizen* concept in developed market-oriented countries should be followed using the Japanese industry example, as well as the one from the US industry (although examples of applications exist in the UK, Sweden, but also in Montenegro, Indonesia etc.). Examples of *Kaizen* concept application are companies from the automotive industry, aviation industry, electrical industry, with the tendency of spreading the application in the non-productive areas. The practical implementation of *Kaizen* concept began at Toyota Corporation, while producing Toyota's best-selling car of the 21st century, Toyota Corolla. Today, there is hardly any bigger company in Japan that does not apply *Kaizen* concept (for example: Olympus Optical Company, Daihatsu, Canon, Komatsu, Hitachi, etc.). In USA *Kaizen* has been applied by Ford Motor, Boing, Dana Corporation, in Germany, it is Mercedes, in Great Britain, Dieselco, in Montenegro, Daido, and, more recently also Japan

Tobacco International-Senta in the Republic of Serbia. In recent times, Japan has been supporting the development of *Kaizen* concept in developing countries, with assistance first focusing on East Asian countries, South Asia, Latin America, and Eastern Europe.

When it comes to African underdeveloped countries, knowledge exchange and the use of *Kaizen* are quite limited. Production companies in Africa are not only disadvantaged in terms of technological development, but also regarding lack of knowledge of key management methods. There are several limitations for implementation of *Kaizen* in Africa. First, in countries with socialist elements, such as Ethiopia, company strength is concentrated in the hands of top management, while *Kaizen* concept emphasizes the empowerment of workers in the workplace (in gemba). Second, the most common sources of productivity decline are outside the company, especially the delay in the delivery of materials. Improving the business network, both back and forth, should be an important element of improving productivity for most African manufacturers.

The study conducted in the three pilot companies: Mesfin Industrial Engineering PLC (MIE), Almeda Textile Factory PLC, and Sheba Leather Industry (Admasu, 2015, 4) has shown that 59% of respondents accept *Kaizen* and fully understand it, while 41% accept this concept with a certain amount of uncertainty and confusion. As a result of poor education and training, there is a lag in the implementation of *Kaizen* techniques and tools, especially in the application of 5S technique (Asayehgn et al., 2014, 39-57). Based on this observation, it could be concluded that training on the *Kaizen* application is crucial. In general, two measures should be considered for dissemination of *Kaizen* in African countries. First, *Kaizen* must be announced as a national movement. Second, spreading the idea of *Kaizen* through professional institutions will be vital (Admasu, 2015, 2-3).

The experience of underdeveloped countries, developing countries, and developed countries regarding the application of *Kaizen* concept can be of great importance for companies in the Republic of Serbia. It should be expected that *Kaizen* concept will find its place and role in companies in the Republic of Serbia, primarily because of its simplicity, ease of understanding, and small investment. The prospects for its transition into the business environment of the Republic of Serbia are encouraging, provided companies release their long-standing habits, especially those that see employees only on the basis of their status in the company hierarchy, and not according to their efforts to achieve the business goal. Hence, the experience of other countries can be helpful to companies in the Republic of Serbia in implementing *Kaizen* concept, especially because until recently they have had neither theoretical nor practical experience in its implementation.

4. TOTAL QUALITY MANAGEMENT: ESSENCE AND IMPLEMENTATION

Total Quality Management – *TQM* concept is synonymous with business excellence, a new business philosophy that implies access to quality-oriented company management. *TQM* can be described as the most powerful, most demanding, and most complex management approach which evolved in the UK in the 1970s and early 1980s. There are several approaches to *TQM*, such as Juran's, Deming's, Ishikawa's, Crosby's, all of which having a unique view of the development and application of TQM in the organization. In this paper we will focus on Deming's approach which is probably the most extensive. The top level of quality can be achieved only through a total quality management model, which shows the

professional and scientific way to achieve business success both in the present and in future, using methods and techniques, improvement, and with the participation of all employees, as well as all stakeholders in the process.

TQM is a management approach in the company that seeks to align customer needs and shareholders' interests, motivating all employees to achieve that goal (Antić, Novićević, 2012, 201). Companies, in which management plays a leading role in the realization of this concept, produce higher-quality products in comparison with companies in which management is not committed to quality of the organization itself (Saleem, et al., 2012, 35). In its structure, *TQM* is a multiconceptual discipline that includes the concepts of quality and management. It is an answer to traditional approach to quality and a new way of improving the competitive position through a comprehensive view of quality management. Therefore, quality is the basis of the total quality management concept, and the main goal is the company's ability to satisfy customer needs.

In the present business environment, a large number of companies recognize and see that total quality management is important and useful. It is a method of gradual improvement of the entire organization, using systematic approach based on hard work, discipline, self-discipline, intensive training, application of existing and new techniques and resources. Numerous companies have successfully implemented *TQM* (Woon, 2000), but there are also companies that have never tried to accept it or have given up on its introduction and failed (Mat Naim et. al, 2015). The truth is that companies have problems with implementation. Strict requests for the implementation of *TQM* program have made many companies give up on implementation. Then, companies should consider key factors of implementation, for example: top management's commitment, teamwork, empowering employees, quality education and training, customer focus, continuous improvement, quality systems and policies, relationship with suppliers, process orientation, customer satisfaction, and business result (Ozden, 2003, 345-350).

A survey conducted in Spain shows how structural, internal, and external factors influence the acceptance of *TQM* concept ideas. The research results have shown that larger companies, the ones that form parts of multinational companies, that export most of their products, produce durable goods, unlike those that produce consumer goods, those with higher competition, greater automation, and mass production, with great technological changes, have a higher degree of adoption of *TQM* concept (Merino-Diaz de Cerio, 2003).

The impact of organizational learning on *TQM* implementation is illustrated by a survey conducted in small and medium-sized enterprises in Malaysia in 2014 and in Australia in 1998. The survey has shown that *TQM* implementation rate is low and slow, and that only a small number of middle and small businesses have reached the stage of development and can effectively deal with *TQM* concept. Problems with *TQM* implementation are related to difficulties in the field of finance, technical equipment, and lack of management experience. The high rate of failure of *TQM* implementation is conditioned by limited organizational learning. The most significant challenge is the lack of human capital. Developing skills and knowledge in companies is crucial for development, which can be achieved through organizational learning (Nurazree & Hilmi, 2014).

In particular, the important role in promoting and encouraging companies to adopt *TQM* belongs to political structures. National quality awards established in many countries stand for recognition of companies that achieved business success through the acceptance of *TQM* practice. Following the establishment of the National Quality Award, Malcolm

Boldridge (MBNQA), in the United States, the Quality Award in the UK, the European Quality Award (EQA), and Deming's Quality Awards in Japan, many other countries have established their national awards (Pui-Mun, 2002, 142-149). Most national quality awards use a set of criteria to assess the company quality based on the achieved performance. In order to present the business excellence model of companies that implemented *TQM*, a case study was conducted in four companies, the winners of the Singapore Quality Award (SQA). The basis for developing the business excellence model is a set of quality criteria that encompass all areas of activity carried out in the company. An example of this may be the presentation of the seven main criteria for the Singapore Quality Award, given in Figure 1.

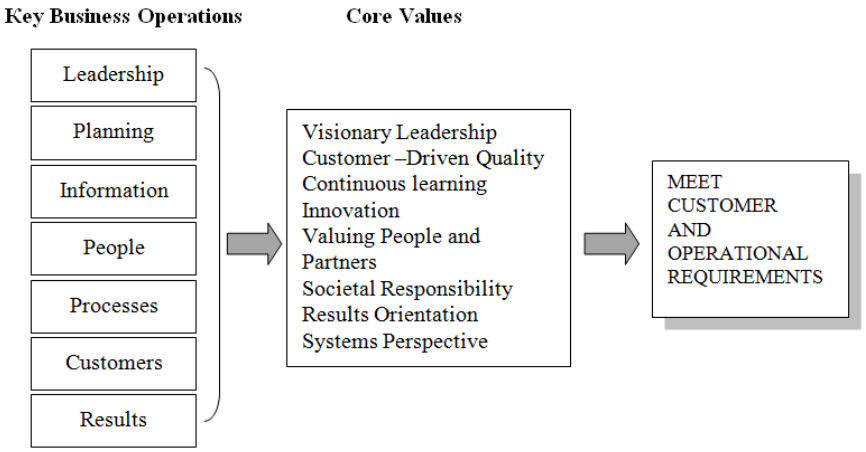

Fig. 1 SQA criteria
Source: Pui-Mun, 2002, 145.

The presented model provides companies with a schematic presentation of the plan for introducing *TQM* in a structured way, with clear and defined goals (Pui-Mun, 2002). The model should be structured to provide the company with core values (quality driven by customers), defined in the Singapore Quality Award workflow, by systematically developing access within the PDCA cycle (*Plan-Do-Check-Act*) (Figure 2). Based on interviews with representatives of award winners, a set of best practices in implementing *TQM* for each phase of the PDCA cycle was made (Pui-Mun, 2002).

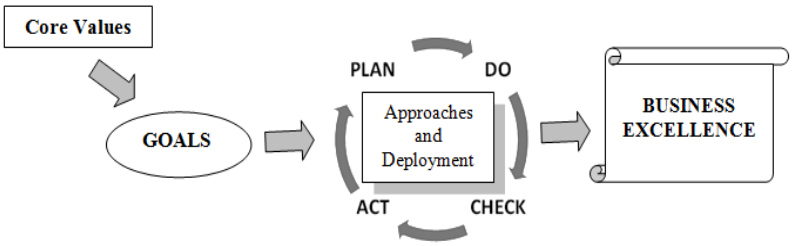

Fig. 2 The framework for excellence model
Source (Adapted from): Pui-Mun, 2002, 147.

To apply the excellence model, the company should set goals regarding core values. For example, the core value goal (quality driven by customers) may be to achieve a customer satisfaction rate of 98% over a period of three years. After the established goal, the company enters the "planning" phase. The basis for drawing up the plan should be best practices of quality award winners. For the transition and realization of the "do" phase, the company also starts with experience or best practices. An example can be the selection of one day in a year that will be dedicated to customers, to indicate their importance to the company business. Another initiative is to set up customer satisfaction teams whose role is to continually seek to increase customer satisfaction. The next is a "check" phase, tasked with adopting initiatives to monitor the effectiveness of proposals introduced at the previous stage. For example, a company may choose certain performance measures, also based on best practice, to measure the effectiveness of previous initiatives, such as the number of complaints, the number of rejected products, the number of lost customers, and the like. Finally, after the initiative assessment mechanism is built, the company should focus on the "act" phase. The focus is on continuous improvement based on initiatives, using information obtained based on calculated performance. Experience with quality training, customer management training, and the like can be adopted by companies at this stage. Developing this model for achieving business excellence using the PDCA cycle allows companies to continuously improve their initiatives and programs (Pui-Mun, 2002). Since the core values defined in the Singapore Quality Award are rather universal in terms of quality management, the given model could be adopted by other companies from other parts of the world that would like to use the guiding operating framework for the introduction and maintenance of *TQM* program. This applies in particular as Singapore is the third most competitive economy in the world (The Global Competitiveness Report 2017-2018 - http://www3.weforum.org/docs/GCR20172018/05FullReport/TheGlobalCompetitivenessReport2017%E2%80%932018.pdf).

An important aspect of implementation is the selection and application of different quality programs. Quality control circles, just-in-time concept, statistical process control, quality audit, and total productive maintenance are the most common quality programs used during *TQM* implementation process. It is interesting to note that as many as 81% of companies that have not introduced *TQM* use quality control circles in Turkey, and in Malaysian companies, quality control circles, 5S, just-in-time and *kanban* are the most popular quality programs introduced. The most commonly used *TQM* tools in the introduction process are the Pareto diagram, statistical quality control, causal loop diagram, and process flowcharts. In a study of 140 manufacturing companies in Saudi Arabia, it was concluded that the flowchart, causal loop diagram, affinity diagrams, and checklists are the most commonly used quality management tools (Ozden, 2003, 346-347). An equally important aspect of implementation refers to the effects of *TQM* application.

5. EFFECTS OF *TQM* APPLICATION IN PRACTICE

Literature claims and empirical research confirms, that *TQM* implementation positively reflects on the company performance, especially profitability, and that non-application or inadequate application can lead to high quality costs and inadequate quality levels that directly affect product profitability. The goal of *TQM* concept, zero-defect production is

often emphasized. The relationship between product/service quality and quality costs and company profitability is a basic, elementary assumption of *TQM* (Sila, 2007). Achieving the basic economic goal, expressed through company profitability, is not easy, especially in conditions of high competition, so quality management has become an important business discipline, and the achievement of overall quality a top strategic issue. A number of studies investigating the correlation between *TQM* application and the company financial performance show that the increase in quality has a positive effect on the financial performance measurement (York & Miree, 2004, 291–311), increase the retention rate of existing customers and attracting new ones , leading to increase in market share and sales revenue (Anderson & Sohal, 1999). High-quality products and services can lead to increased customer loyalty, higher prices, reduction in post-sales services, and productivity increase (Santos-Vijande & Alvarez-Gonzalez, 2007, 21-41). Ensuring high quality of products and services requires continuous improvement of organizational processes. Hence, *TQM* strives to form a company that is based on continuous improvement, i.e. the way of life of a company characterized by continuous improvement, positive work environment based on teamwork, system approach, full application of knowledge and experience in process improvement, and inclusion of all employees in the organization and quality management system.

An interesting survey of the presence of *TQM* in large companies in the Republic of Croatia was conducted during the second half of 2008. The results have shown that, among non-financial performance measures, customer satisfaction and loyalty, quality of products and services, and continuous business improvement are most represented. In terms of quality, the results have shown that all companies apply quality standards and possess appropriate ISO certificates. Also, 67% of respondents apply *TQM* in their business. Researchers warn that such a high score could be a subjective top management opinion, and other studies have shown that a large number of companies apply ISO standards, but not *TQM*. Hence, the final conclusion is that more than half of companies applying ISO certificates do not fully apply *TQM* concept (Vrdoljak, 2010)

What is the correlation between customer satisfaction and *TQM* application, as well as between customer satisfaction and financial performance, is shown in a survey conducted in Malaysia on a sample of manufacturing companies publicly trading on the Kuala Lumpur stock market. The results show that the high level of *TQM* implementation improves customer satisfaction, which ultimately increases company's business success. As factors increasing customer satisfaction, commitment of top management, customer focus, good relationships with suppliers, and the role of human factors in the realization of *TQM* have been identified. Also, product quality has been identified as a critical factor of customer satisfaction. The results of high quality are increased market share, sales, and profitability, even when increase in quality implies more expensive material and production process. The price of differentiation exceeds increased costs. In addition, the reputation of high-quality products reduces the elasticity of demand. The key conclusion is that one should strive to ensure high-quality products, as well as other exceptional product characteristics and delivery time (Agus, et al., 2000)

During 2003, a survey was conducted at large manufacturing companies in Turkey, with the main goal of determining the current status of *TQM* application, as well as investigating success factors for the introduction of *TQM*. Of the 100 companies that made the sample, 62% fully implemented *TQM* and in 61.4% of study participants *TQM* introduction was initiated by the top management. The results of *TQM* introduction are expressed by reduced customer complaints, increased customer satisfaction, improved quality, lower prices, zero-defect

production, and increased market share, increased employee satisfaction, achieving teamwork, and reduced costs. Similar surveys carried out in 127 Malaysian companies show that mainly top management and consultants are in charge of introducing *TQM* into company practice. The results of the analysis also show that the average time of introducing *TQM* is between 5 and 7 years, in Malaysian companies 6.33, and in a study conducted in 73 Taiwanese companies, the results indicate that it is between 1 and 5 years. The application of *TQM* in Turkish companies faced certain difficulties and problems, most often seen in inadequate knowledge of *TQM* concept, resistance of some employees to its application, and lack of top management support (Ozden, 2003). Knowing potential barriers should be the basis for their easy overcoming.

6. COMPARATIVE ANALYSIS OF *KAIZEN* AND *TQM*

Kaizen and *TQM* concepts are closely related, but not identical. The most important common feature is effort towards continuous improvement in order to achieve the quality of products and processes in the company. They are complementary concepts that share the same philosophy. The most successful companies almost always use them at the same time to maximize benefits. The basis for successful quality improvement in both concepts is the Deming cycle, as a series of related activities – *plan, do, check*, and *act*. To reach a better quality that meets customers' needs, these four stages (steps) should be constantly rotated, whereby quality becomes the main criterion (Janjić, 2009, 209-210). In the revised version of the Deming cycle, the first step (plan) is replaced by *standardization*. So, the basis for improving quality lies in standards, which, when achieved, are replaced with new, higher standards, relying on improvement. Standardization is one of the most important pillars in implementation of both *Kaizen* and *TQM*. Higher quality, which leads to increased customer satisfaction, which further conditions better business performance, is the goal of both *TQM* and *Kaizen*. Thus, both concepts focus on continuous quality improvement, with *Kaizen* focusing on small and gradual improvement, and *TQM* pointing out that radical improvement is important and crucial for achieving great effects (Saleem, et al., 2012, 36).

These two concepts differ in the way they are implemented. *Kaizen* focuses on step-by-step improvement, while *TQM* focuses on simultaneous operations in all processes, i.e. maintenance and improvement take place in parallel (Saleem, et al., 2012, 38). *Kaizen* means little incremental but continuous improvement, and rests on the idea of "disassembling and reassembling in a better way" in order to improve the process, quality, and performance in a company (Todorović, 2013, 24). There is no discontinuity in *TQM* process of continuous improvement. *Kaizen* alternately performs maintenance and improvement processes. Implementation of the maintenance component is done by assigning tasks to all employees based on standard operating procedures. Improvement implies the establishment of higher standards, and when the establishment of a new standard is completed, then a new process of its maintenance begins.

Kaizen puts the human factor at the forefront, i.e. the quality of people, while *TQM* concept is oriented towards quality of products and services. Western business philosophy insists on enhancing and improving technology, in contrast to *Kaizen* that can be used in every aspect of business.

While *Kaizen* is limited to specific projects, *TQM* is present throughout the organization, in all processes, departments, and organizational units. Thus, *Kaizen* is applied in the form of

small improvement projects aimed at a specific business aspect, with the intention of quickly discovering the cause of the problem and effectively applying solution with the help of an independent multifunctional team. When seeking suggestions for improvement, *Kaizen* involves all stakeholders at all organizational levels. *TQM* improvements are performed in all business aspects, including all company employees, who are responsible for improving the product quality. When it comes to suggestions for improvement, *Kaizen* concept follows a bottom-up approach. *TQM* concept follows the bottom-up and top-to-bottom approach, i.e. top management as much as the company's employees suggest and introduce the need for improvement (Saleem, et al., 2012).

Furthermore, *Kaizen* focuses on improving the use of available resources, which implies that its implementation does not require large investment or requires almost none. *TQM* requires investment to improve the quality of products or processes (purchasing a new machine, automation, innovation). What is evident is that *TQM* achieves continuous improvement through the use of *Kaizen* and through innovation. It can be concluded that, despite differences in methodology, focus, and range of activities, *Kaizen* approach is the basis of *TQM*, focused on the production phase in the value chain and continuous improvement of quality, processes, and performance through small changes in processes and in the workplace, thus reducing various types of waste. *TQM* focuses on improving quality by adding value, creating a perfect product, improving productivity, and reducing variations in measures and processes (Saleem, et al., 2012).

CONCLUSIONS

Quality should be understood as one of the key factors of business success, i.e. one of the strategic variables, which directly affects customer satisfaction, and contributes to achieving the company goals. Quality, in modern business conditions, becomes a paradigm of competitiveness, bearing in mind that achieving the quality of products, services, and business processes requires the coordination and engagement of all employees. Quality is not once-for-all given value, and it is necessary to take measures for its continuous improvement. In theory and practice, numerous tools for improving and managing quality have been developed. The subject of this paper have been *Total Quality Management* and *Kaizen*. The analysis has shown that these are the concepts that directly enable continuous quality improvement.

Based on the above, it can be concluded that *TQM* and *Kaizen* are two concepts with certain similarities and differences, which can form the basis of successful business of a modern company, and have the potential for integrated application, which confirms the underlying hypothesis. The application of *TQM* and *Kaizen* implies radical changes in business organization, connecting customers and suppliers, and relationships with customers, and the companies that implement them face certain difficulties. The most common problems arising in the application of *TQM* are the lack of qualified quality consultants, the conflict of management structures and *TQM*, expensive and long-lasting application, inadequate knowledge of *TQM*, employee resistance, and insufficient top management support. The conducted research has shown that these problems are most often expressed in the introduction of *TQM* in small and medium enterprises. Although *Kaizen* implementation is much less demanding, it encounters difficulties that are most often seen in the resistance of employees. Employee resistance is often the result of overload, stress, and loss of self-confidence, resulting in a decline in motivation

and rise in dissatisfaction. One of the solutions to overcome these problems and maximize the effects of the application is knowledge. Hence, training and education should include all employees in order to continually improve quality, processes, and effects by joint application of *Kaizen* and *TQM* concepts.

Strong competitive pressure forced many companies, both production and service-oriented, to actively accept *TQM* and *Kaizen* in order to survive and succeed in their business. Given that *TQM* and *Kaizen* have the potential to create a competitive advantage, the number of companies that implement them increases. Experience in the application of *TQM* and *Kaizen* concepts in companies around the world, especially in large ones, has shown significant results, expressed primarily through quality improvement, cost reduction, and enhanced financial performance, and can serve as a good practice for application in companies in the Republic of Serbia.

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TQM I KAIZEN U FUNKCIJI KONTINUIRANOG UPRAVLJANJA KVALITETOM

Gotovo da postoji opšteprihvaćeni stav da je kvalitet jedan od najvažnijih faktora konkurentnosti preduzeća. Iz tog razloga, kvalitetom je neophodno upravljati. Kao odgovor na potrebu upravljanja i zahteve za visokim kvalitetom u teoriji i praksi razvijeno je više koncepata. Upravljanje ukupnim kvalitetom (Total Quality Management – TQM) i kaizen predstavljaju dva osnovna koncepta koji se direktno bave kontinuiranim poboljšanjem kvaliteta proizvoda i procesa preduzeća kako bi se postigle pozitivne transformacije u razmišljanjima i aktivnostima zaposlenih i menadžmenta. U fokusu ovog rada jeste analiza pomenutih koncepata i njihov doprinos programu kontinuiranog poboljšanja kvaliteta. Otuda, cilj postavljen ovim radom jeste razmatranje osnovnih karakteristika TQM i Kaizen koncepta, te na osnovama uporedne analize izvođenje zaključaka o distinkciji između njih u pogledu suštinskog određenja i praktične primene u domenu upravljanja kvalitetom.

Ključne reči: *kvalitet, kontinuirano poboljšanje,koncept, upravljanje ukupnim kvalitetom, kaizen*.

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Review Paper

TENDENCIES IN DEVELOPMENT OF EXTERNAL AND INTERNAL AUDIT IN THE PUBLIC SECTOR

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Abstract. *Although they have different and clearly defined roles, the general purpose of external and internal audit in the public sector is to contribute to good governance of public funds, that is, efficiency, effectiveness and economy of public administration. As part of the numerous reforms in the public sector of the EU countries, as well as the Balkan countries, which began at the beginning of the 21st century, the external audit of the public sector (state audit) is developing an integral approach in its scope of work, which means providing attestations to the Parliament and the citizens of the state that the public funds are used effectively, efficiently and economically, and that the financial statements and operations of the public sector entities are in line with professional and legal regulations (emphasis is on the performance audit). The internal audit of public funds users, in addition to providing assurance services, is increasingly focused on advisory services with the aim of providing management with support in improving public resource and risk management, the efficiency of spending public funds and the provision of quality public services.*

Key words: *state audit, internal audit, public sector, integral approach, advisory services, EU and Balkan countries*

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INTRODUCTION

High demands for transparency in the area of accountability with activities and use of public funds, i.e. cost accounting, as well as the requirement that any public spending brings increase in profits, have in the last two decades imposed comprehensive reforms in the public sector in EU countries, as well as in the Balkan countries. In order to promote greater accountability of the public sector governance structures and achieve greater effectiveness and efficiency in the use of public resources, measures have been taken that have contributed to the development of the so-called New Public Management (NPM), which involves the adoption of management concepts and styles characteristic for the private sector. NPM, among other things, involves a gradual replacement of the cash-based by accrual-based accounting. Financial statements compiled using the cash basis do not contain a report on the financial position of an entity, business report, information on service costs, performance indicators, relative position of an entity is unclear, and the like (Montesinos, Bargues, 1996). Accrual-based accounting allows the production of information on the basis of which it is possible to evaluate the total assets that the entity controls, assess the usefulness of the way of using assets, evaluate performance, perceive the financial position and cash flows, and the like.

In addition, public sector reforms in EU member states and Balkan countries include: activity-based budgeting and accounting in the public sector (ABM); changing the budgeting model from linear to programme-based (based on performance); development of an integrated approach in the scope of work of supreme audit institutions; building an integrated internal control framework; changes in the PIC system (Public Internal Control system); development of the PIFC system (Public Internal Financial Control system) in the countries acceding to the EU; directing and monitoring the development of PIFC schemes by the European Commission (DG Financial Control); audit and evaluation of the PIFC system in the countries acceding to the EU, implemented by: the European Council, the European Commission, the European Parliament (CBC) and the European Court of Auditors; implementation of reforms in the internal control system in the "old" member states (from a centralized to a decentralized system); decentralization of internal audit; decentralized use of EU funds in order to support these reforms, and the like.

Given the significant impact that can be made on improving public accountability, the reforms include government and public audit in the public sector. In this context, there is a trend of transition from a traditional to an integrated approach to state audit, and the expansion of the scope of work and decentralization of internal audit in the public sector, as well as the strengthening of cooperation and coordination of these forms of control.

It should be noted, however, that there are numerous differences between EU countries, and the Balkan countries in terms of "why, when, and how" they implemented reforms in external and internal audit in the public sector. The aim of the paper is to compare trends in the development of external and internal audit in the public sector in EU countries and Balkan countries.

1. Development of an Integrated Approach to External Audit in the Public Sector in the EU Countries

In developed countries, the tradition of state audit dates back to mid-19th century. The global significance of performance audit has been increasing since the adoption of the 1977 Lima Declaration, through the Resolution of the 12th INTOSAI Congress in Sydney in 1986, then the 13th INTOSAI Congress in Berlin in 1989, and the 14th INTOSAI Congress in Washington in 1992 (Akrap et al., 2009). Most of the state audit institutions around the world apply the INTOSAI Standards – ISSAI by the International Organization of Supreme Audit Institutions, as well as the INTOSAI Guidance for Good Governance, including our SAI (see more: State Audit Institution, 2017). Some EU countries apply their own state audit standards, such as Great Britain and Ireland, which use their own standards compliant with the ISSAI. All of the above standards (ISSAI and national audit standards) provide for the performance of regularity audit (financial audit and compliance audit) and performance audit.

However, for SAI, performance (expediency) audit is a challenging task, as part of the development of an integrated approach in carrying out state audit. This is especially true for SAI of individual developing countries or those in the transition process, which do not have a decades-long tradition in the field of public sector auditing (Tiron Tudor, 2007). Audit institutions in the United States, Canada, Great Britain, Sweden and other developed countries started developing performance audit in 1960s, although similar ideas began to emerge in the 1940s. In the United States, the United States Government Accountability Office (GAO), since 1970, in addition to financial audit for the needs of the US Congress, devotes over 90% of its work to performance audit.

SAI is an independent institution between the Parliament and the public sector, with the task of providing assurance of public expenditure, and, communicating with both sides, can see much further and perceive the public sector much wider than any other public sector institution (Joscelyne, 2003). Until the 1980s and 1990s, *traditional audit approach* was dominant in the work of state audit institutions (Akrap, V. et al., 2009, 354), and included regularity audit (financial and compliance audit). Since then, there has been a noticeable shift from a traditional approach to a wider *integrated or whole-of approach to audit* (INTOSAI Development Initiative, 1995, 7-9). Traditional public sector audit focuses on regularity audit (INTOSAI Framework of Professional Pronouncements, 2016), which includes: control of statements that the executive and public sector entities submit to the Parliament on public expenditure (*attestation audit*) (ISSAI 100, ISSAI 200, ISSAI 1000), as well as the legality of the work of these authorities and entities (*compliance audit*) (ISSAI 100, ISSAI 400, ISSAI 4000, ISSAI 4100, ISSAI 4200).

An integrated approach to state audit, in addition to regularity audit (financial and compliance), includes performance audit (*performance audit, value for money audit, effectiveness auditing*) (Akrap et al., 2009). The main goal of SAI, in conducting performance audit, is to examine the economy, efficiency and effectiveness of collecting and spending public funds and managing government assets (Bonić, Stojković-Krstić, Antić-Marinković, 2016). In this way, it contributes to the rational use of public funds and the achievement of better effects in the management of those funds. SAI becomes an advisor and assistant to the government in using public resources rationally and efficiently and satisfying citizens' demands for quality public services, and is also available to citizens, as it informs them,

and prevents and discovers illegal and criminal actions in the process of managing public funds. Also, SAI helps the public administration to manage human resources on the basis of evaluation of work, accuracy, excellence, and free exchange of ideas. A state auditor may assist the management of a public sector entity to better manage insufficient public funds, but at the same time must retain independence.

All EU countries have adopted an integrated approach to state audit. However, it can be noted that countries with a long tradition in the development of state audit have gone the furthest in this process (Great Britain, Germany, France, Denmark, Norway, etc.). It is also noted that the *SAI organization model* has an impact on the representation of certain audit types (see Table 1) (Compendium of the public internal control systems in the EU Member States 2012, PIC Compendium data, 2014).

Thus, the *EU countries with state audit model based on court of audit*, although heading in the direction of an integrated approach to audit, primarily emphasize compliance audit (audit of business compliance with laws and other regulatory, parliamentary requirements) and sanctioning unlawfulness and irregularity in the work of public sector entities. State audit in this model is the task of auditors, while the court of auditors also includes judges, who perform court activity and sanction all established illegal and criminal actions in the public sector. This is because state audit in these countries is part of the judiciary, and is independent of the legislative and executive authorities. Therefore, in these SAIs, controlling efficiency and effectiveness of public sector work has a minor role in relation to compliance audit. The lack of parliamentary involvement in these SAIs can result in a smaller public interest.

EU countries with state audit organized according to a *monocratic office model* (*Westminster type, where audit institution is headed by a single person*), such as Great Britain, Ireland, and Denmark, although developing an integrated approach to audit, focus on financial audit. This is due to the strong relationship between SAI and the Parliament, which takes place through the parliamentary Public Accounts Committee, which reports to the Parliament. Committee members are mainly accountants and auditors, so there is strong financial control.

In most EU countries, state audit is organized according to the *collegial body model*, with a collegial decision-making method and without judicial activity, directed at Parliament. At the head of the audit institution there is a committee (council, collegial body), and the work of the institution does not depend on one person only, but the collegial structure can make the decision-making process difficult and slow. As this model is present in most newly-admitted EU members (formerly socialist countries), an integrated approach to audit is still under way there.

Table 1 gives a comparative overview of the SAI organization models in EU countries and the scope of development of state audit approach.

Table 1 A comparative overview of the SAI organization model and a built-in approach to state audit in EU countries

Country	Year of establishment	SAI organization model	Approach to state audit
Austria	1761	Court of Audit (CoA)	Dominant compliance audit, court activity, development of performance audit
Belgium	1830	Court of Audit (CoA)	Dominant compliance audit, court activity, development of integrated approach
Bulgaria	1880	Collegial Body Model (NAO)	Development of integrated approach
Cyprus	1879	Collegial Body Model (NAO)	Integrated approach
Czech Republic	1993	Collegial Body Model (SAI)	Development of integrated approach
Denmark	1849	Monocratic office model (NAO)	Development of integrated approach
Estonia	1990	Collegial Body Model (NAO)	Development of integrated approach
Finland	1824	Collegial Body Model (NAO)	Development of integrated approach
France	1318	Court of Audit (CoA)	Dominant compliance audit, development of performance audit, court activity
Germany	1714	The court of audit model that went into the collegial body model	Whole-of approach, no court activity
Greece	1862	Court of Audit (CoA)	Dominant compliance audit, court activity
Hungary	1990	Collegial Body Model (SAO)	Development of integrated approach
Ireland	1923	Monocratic office model (C & AG)	Focus on financial audit, development of integrated approach
Italy	1862	Court of Audit (CoA)	Dominant compliance audit, court activity
Latvia	1918	Collegial Body Model (NAO)	Development of integrated approach
Lithuania	1919	Collegial Body Model (NAO)	Development of integrated approach
Luxembourg	1840	Court of Audit (CoA)	Dominant compliance audit, court activity
Malta	1885	Collegial Body Model (NAO)	Integrated approach
The Netherlands	1447	Court of Audit (CoA)	Dominant compliance audit, court activity
Poland	1919	Collegial Body Model (SAO)	Development of integrated approach
Portugal	1933	Court of Audit (CoA)	Dominant compliance audit, court activity
Romania	1864	Court of Audit (CoA)	Court activity, integrated approach, development of performance audit
Slovakia	1993	Collegial Body Model (SAO)	Development of integrated approach
Slovenia	1994	Court of Audit (CoA)	Court activity, integrated approach, development of performance audit
Spain	1436	Court of Audit (CoA)	Dominant compliance audit, judicial activity
Sweden	1651	Collegial Body Model (NAO)	Development of integrated approach
Great Britain	1314	Monocratic office model (NAO)	Focus on financial audit, integrated approach
Croatia	1993	Collegial Body Model (SAO)	Development of integrated approach, development of performance audit

Source: The table is the result of research according to the PIC Compendium data, second edition, Analysis overview, 2014 (Bonić, Đorđević, 2017)

2. The Development of Public-sector Internal Audit Consulting Services with the Aim of Improving Public Fund Management in EU Countries

For the purpose of more efficient functioning of the public sector, it is justified that both the state and professional community insist on the "consistent implementation of managerial accountability and the development of the role of executives and accountants" (Borović, Zakić, 2013). Particular contribution to this comes from the well-organized *public internal control* in the public sector (internal control and internal audit)

Public internal control in public sector entities should help and *support the improvement of the management function*: *improving the management system and improving operational performance* (Bonić, 2016).

Improving the management function should ensure secure functioning of the public sector, through the protection of business sustainability (*going concern principle*) and the maintenance of the planned spending of previously allocated funds (*principle of budgetary financing*). Also, public internal control in public sector entities should *contribute to risk management* (Koning, 2007), risks most often occurring as: misuse of financial, personnel, and technical resources; failure to implement budget policy decisions in a regular and effective manner; fraud and errors; inadequate accounting records; failure to provide timely and reliable information on the management of finances and resources (See more in: Akrap et al., 2009). Risk management is a process of identifying, assessing, and controlling risks in order to provide reasonable assurance of the achievement of the organization's objectives.

Internal audit in the public sector, in the context of providing support to the top management in governance, provides: a) *assurance services* on the adequacy of risk management, internal control, and governance processes of the public sector entities in achieving the set goals, b) *consulting services* consisting of recommendations, guidance, training, assistance, and other services in order to increase the value and improve the entity management and internal control processes.

Trends in the development of internal audit within the PIC system in EU countries (regardless of whether it develops as a specific PIC system or a PIFC system) are the following (Compendium of the public internal control systems in the EU Member States, 2012; PIC Compendium, 2014):

- *The trend of decentralization of pubic internal control and the connection and harmonization of its elements*

Since the beginning of the 21st century, most of the current 28 EU countries have been engaged in the modernization of the control environment in the public sector (Compendium of the public internal control systems in the EU Member States, 2012). Some countries have special internal control institutions, independent of public sector entities (*strong public internal control centralization*), such as Intervención General de la Administración del Estado (IGAE) in Spain, or Inspection Générale des Finances in Luxembourg (Compendium of the public internal control systems in the EU Member States, 2012). A large number of EU countries (Germany, the Netherlands, Sweden, Great Britain, the 13 new EU member states) consider that public sector entities need to build a public internal control system within their internal management process. Decentralization of public internal control (internal control and internal audit) should ensure the improvement of public fund management, greater accountability when spending public funds, and impact on the prevention and detection of fraud and corruption in the public sector.

- *Internal audit in the public sector – scope of work, regulations, organization*

For most EU members with a decentralized internal audit system, *risk management* is becoming part of the governance mechanism in the public sector. This is the case in Estonia and Sweden, while in some countries, like Ireland, only some departments are implementing risk management strategies. Several countries, on the other hand, do not mention explicitly risk assessment within their internal oversight arrangements (Germany, Italy, Luxembourg, and Spain).

The basic components of today's work programs for most internal audit functions are *audit of financial information and audit of compliance, i.e. regularity of financial management.* However, the introduction of performance-based budgeting (program budgeting), evaluation, risk management, and the growing complexity of technology, used to provide government services, have a significant impact on increasing demands for the provision of diverse expertise, consulting services, and higher quality of all services from internal audit. The extension of internal audit scope is reflected in the implementation of: *financial services, financial assurance services, management services, IT audit, performance audit, information safety and security, and others*. Only data from Estonia is out of this, as it shows that the demand for consulting services has declined in this country.

All EU Member States have an established internal audit function in the public sector. Some EU countries (Luxembourg, Greece) have plans to decentralize internal audit in the public sector, and currently rely on other arrangements. In Italy, a special committee was entrusted to provide the minimum legal basis for the functioning of internal audit. Spain attaches great significance to a form of ex ante internal audit, and a form of subsequent audit of public sector activities is also being developed. Many EU member states have established audit boards/audit committees.

Regarding the *professional regulatory framework for internal audit* in the EU member states, the International Standards for the Professional Practice of Internal Auditing of the Institute of Internal Auditors and the Code of Ethics are generally accepted, while 18 member states have a specific set of internal audit standards in the public sector.

Internal audit *does not cover all parts of the public sector in the same way* in all EU member states. In some countries, in addition to the central level of government, internal audit covers both regional and local governments (Lithuania, Estonia), while some countries intend to develop an internal audit at local government level (Romania). In Sweden, only some agencies (which manage complex and sensitive operations, with large resources and high costs) have an obligation to set up internal audit. Most EU countries have organized internal audit in state bodies and institutions.

- *Harmonization and coordination of internal control and internal audit in the public sector*

EU member states use different methods to harmonize and coordinate internal control and internal audit, from making recommendations for professional networking between financial control mechanisms and internal and external auditors to the establishment of a central harmonization unit. However, more than half of the EU countries have established a *central harmonization unit* (*CHU*), which is responsible for: proposing regulations in this field, harmonizing standards, monitoring quality and success, and establishing and coordinating human resources training activities.

In most cases, CHU is part of the Ministry of Finance, and is sometimes *supported by independent advisory boards or committees*. Several EU member states have special forms of *networking* arrangements that can provide the necessary level of coordination (for example, Austria, Cyprus, Denmark, Germany, and Latvia). The Czech Republic recently abolished its central harmonization unit for efficiency reasons. Some EU countries (France, Hungary, Portugal, and Great Britain) highlight the importance of central harmonization units, in particular to create good and efficient arrangements for cooperation between managers of public entities and financial controllers and internal auditors.

- *Cooperation of internal and external (state) audit in the public sector*

Most EU member states have developed relationships between internal and external audit in the public sector, particularly in the area of (INTOSAI GOV9150): assessment of the subject of the audit (control environment, compliance of financial statements with legal and professional regulations, operational performance, entity management, risk management, and the like); documenting the entity's operational processes (submission of plans and internal audit reports to SAI); developing and implementing audit procedures; methodology and training of personnel; information on internal controls; investigating fraud and corruption.

Collaboration helps the exchange of ideas and knowledge between state and internal audit in the public sector, which affects the harmonization of their scope of work, and certainly contributes to strengthening the position of these professions in the public sector. This allows for identifying opportunities for joint promotion of good governance and accountability of public sector entities. Special benefits stem from reducing the likelihood of job duplication, which largely ensures a high degree of efficiency of the conducted audit procedures without endangering effectiveness. Thus, although the goal when assessing the achieved level of efficiency and effectiveness of internal control system is different, information exchange and joint implementation of inspection and other procedures are very important (Endaya, 2014). Coordination of plans provides a better understanding of the risks that the public sector entity faces, leading to more targeted audit, and, consequently, more useful recommendations. Mutual communication provides better coordination of activities, clearer understanding of individual roles and demands of state and internal audit, better mutual understanding of the results of the work of the other, etc.

The results of the 2015 survey (EUROSAI – ECIIA Joint Paper, 2015), conducted by the European Organization of Supreme Audit Institutions (EUROSAI) and the European Confederation of Institutes of Internal Auditors (ECIIA), provide a great deal of detail on the achieved cooperation between state and internal audit. In general, the *most common ways of cooperation between state and internal audit* are as follows:

- Mutual communication of audit reports (Belgium, Croatia, Cyprus, Denmark, Finland, France, Latvia, Malta, the Netherlands, Poland, Portugal, Slovakia, Spain),
- Regular meetings of state and internal auditors (Austria, Belgium, Croatia, Czech Republic, Denmark, France, Hungary, Latvia, Lithuania, Malta, the Netherlands, Slovakia),
- Using the results of the work of the other party in order to determine the nature, timing, and scope of the audit procedures to be carried out (Belgium, Bulgaria, Croatia, Czech Republic, the Netherlands, Poland).

Table 2 gives a review of the organization of internal control/internal audit and the scope of established cooperation between external and internal audit in the public sector in the EU countries.

Table 2 The organization of internal control/internal audit and the scope of established cooperation between external and internal audit in the public sector in the EU countries

Country	Model of internal control organization/ Establishment of IA	Cooperation between external and internal audit in public sector
Austria	Accepted components of PIFC access to the EU. IA establishment in all ministries, state self-governments and 50% of agencies and public enterprises	Well-established (informal) cooperation in the field of planning, information exchange, reporting
Belgium	Accepted components by PIFC access to EU/ IA is performed in 22 institutions of executive power	Formal cooperation is established at the regional level, while formal agreement does not exist with IR in individual entities and provinces
Bulgaria	Decentralized internal control. Established PIFC system and IA within it	Established cooperation between state and internal audit through agreement
Cyprus	Centralized internal control. IA is in charge of the Internal Audit Service (IAS), headed by the Commissioner of Internal Audit	Internal audit reports are taken into account when developing an annual external audit plan
Czech Republic	Decentralized internal control, Established PIFC system and IA within it	Mutual use of work in order to determine the nature, timing and scope of audit procedures
Denmark	Decentralized internal control. Within each ministry IA established in all departments of the federal administration	Realizing cooperation through the organization of quarterly meetings. Cooperation regulated by law.
Estonia	Established PIFC system and IA within it	High level of cooperation and coordination
Finland	Established PIFC system IA is performed in government ministries and state bodies	Strong cooperation established
France	Strong centralization of internal control. Starting the process of decentralization of internal control	There is cooperation in the domain of internal audit work for the needs of the Court of Audit
Germany	IA organized in all departments of the federal administration	The decisions on the nature and degree of contact between the state and internal audit are the responsibility of the state audit unit.
Greece	The trend of decentralization of the PIC, Centralized IA for ministries and regions	No cooperation agreement
Hungary	Decentralized internal control, Established PIFC system	Established cooperation. State Audit uses the work of internal audit but also involves it directly in carrying out the audit procedure
Ireland	Decentralized internal control, IA established in all government departments and state organs	Joint review of financial statements
Italy	The trend of decentralization, IA is performed within the Ministry of Economy and Finance	There is no cooperation agreement
Latvia	Decentralized internal control. IA established in ministries and institutions directly responsible Prime Minister	The external audit cooperates with the internal audit through the Ministry of Finance and the State Revenue Service
Lithuania	Decentralized internal control. Established PIFC system	Established strong cooperation and coordination of work
Luxembourg	Strong centralization of internal control IA is performed by the General Inspectorate of Finance	Establishing cooperation

Country	Model of internal control organization/ Establishment of IA	Cooperation between external and internal audit in public sector
Malta	Centralized IA is performed by The Internal Audit and Investigation Department (IAID)	Established cooperation. Meetings are organized to discuss relevant issues and proposals of the audit program
Netherlands	IA is centralized for the minister, but it is operatively present in all ministries. It is performed by the Central Government Audit Department	There is intense cooperation between the Court of Audit and the internal audit at the national level
Poland	Decentralized internal control, Established PIFC system	State auditors cooperate with internal auditors on a daily basis during auditing activities.
Portugal	Decentralized internal control; IA is organized at the level of ministries and most bodies in the public sector	The law regulates cooperation at the highest state level. At lower levels, internal audit cooperation is carried out as needed.
Romania	Decentralized internal control. Adopted PIFC system	Cooperation is regulated by the concluded protocol between the Ministry of Finance and the Court of Audit.
Slovakia	Decentralized internal control. Adopted PIFC system	Cooperation between state and internal audit is covered by the strategies for the development of state audit.
Slovenia	Decentralized internal control. Adopted PIFC system	Although informal, strong cooperation has been established in a number of areas: planning, reporting, risk assessment, etc.
Spain	Centralized internal control, IR is performed by the Interagency General de la Administración del Estado – IGAE	Formal cooperation has not been established.
Sweden	Accepted PIFC components when accessing the EU	Informally established cooperation in the field of assistance in the work, information exchange and reporting in individual engagements.
Great Britain	Decentralized internal control - IA organized in all entities	Cooperation established in the exchange of strategies, plans and work.
Croatia	Decentralized internal control. Adopted PIFC system	The agreement established cooperation, giving and monitoring the implementation of recommendations.

Source: The authors created the table based on: Compendium of the public internal control systems in the EU Member States, 2012; PIC Compendium, 2014

3. TRENDS IN THE DEVELOPMENT OF EXTERNAL AND INTERNAL AUDIT IN THE PUBLIC SECTOR OF THE BALKAN COUNTRIES

The Balkan countries, Slovenia, Croatia, Romania, and Bulgaria, are EU members, while Montenegro, Bosnia and Herzegovina, Serbia, and Macedonia are in the process of joining the EU. As part of the EU accession process, these countries had to implement numerous reforms in the public sector, as well as other areas, in terms of harmonizing and accepting appropriate legislation (EU legal acquisitions and professional regulation) and establishing good governance practices, not just using EU funds, but also by collected public funds.

Reforms in the public finance management and control system require: activity-based budgeting and accounting in the public sector (ABM); transformation of the accounting basis

from cash to accrual; changing the budgeting model from linear to program-based (based on performance); building an integrated internal control framework; development of PIFC – Public Internal Financial Control System (internal financial control system in the public sector); directing and monitoring the development of PIFC schemes by the European Commission (DG Financial Control); audit and evaluation of the PIFC system carried out by: the European Council, the European Commission, the European Parliament (EP), and the European Court of Auditors; decentralization of internal supervision; construction of new public management (NPM), development of an integrated approach to audit in state audit institutions, development of coordination and cooperation between SAI and internal audit in the public sector.

In the Balkan countries, *state audit* was established relatively late in relation to European countries with a long tradition in this field. Regulatory framework related to state audit in these countries includes *laws, by-laws*, and *professional regulations* (Bonić, Đorđević, 2017). The SAIs of Slovenia, Romania, Croatia, and Bulgaria have established integrated approach to audit, while Bosnia and Herzegovina, Montenegro, Macedonia, and Serbia, in addition to the established financial audit and compliance audit, develop performance audit. The *court of audit model* was accepted in Slovenia and Romania in the organization of state audit, while Croatia, Bulgaria, Bosnia and Herzegovina, Montenegro, Macedonia, and Serbia defined the *collegial body model*.

The Balkan countries have adopted the *concept of a PIFC system for organizing internal public sector oversight* by opening negotiation chapter 32 – Financial control, which, among other things, requires the establishment of internal financial control in the public sector. The PIFC system has been developed by the European Commission with the aim of establishing effective internal oversight in the public sector for the purpose of protecting and ensuring the proper use of public funds in countries acceding to the EU. In the process of joining the EU, the PIFC system is introduced into the candidate country practice through two processes. One is the preparation and use of pre-accession EU assistance programs, for which institutions must have fully established system of internal financial controls, in line with EU requirements. The second is the negotiation process, in which negotiation chapter 32 obliges the candidate country to establish and implement a system of internal financial controls (see more in: Informacioni centar EU u Beogradu, 2015).

All Balkan countries have adopted the *strategy for the development of internal financial control (oversight) in the public sector*. The PIFC system has become an integral and vital part of the public sector in these countries, and executives in internal financial management, internal control, and internal audit become, or have become, a special professional category of public sector employees with formal qualifications and long-term training programs. *The main components of the PIFC system* in these countries are: 1. financial management and control, 2. functionally independent internal audit, and 3. central unit for harmonization and coordination of the financial management and control system and internal audit methodology (CHU).

The countries of the Balkans currently in the process of joining the EU face the challenges of implementing the PIFC system, the process of decentralization of internal oversight, the establishment of internal audit in all public sector entities, directing internal oversight to the governance function of public sector entities (especially risk management) and improving their operations. The construction of the PIFC system should contribute to the strengthening of public administrations and increase accountability regarding public spending and finances (especially those derived from EU funds) of the Balkan countries that are in the process of EU accession.

Internal audit, as part of the PIFC system, is institutionalized in the Balkan countries through *laws, by-laws, and professional regulations* (Bonić, Đorđević, 2017).

Internal audit in the public sector in the Balkan countries is mandatory for direct and indirect users of public funds, and it is established mostly in one of the following four ways: as an independent internal audit unit, by the appointment of an internal auditor, the establishment of a joint internal audit unit or an agreement with the entity that performs internal audit in one of the three preceding ways, with the prior approval of the CHU.

Internal audit in the public sector is an independent activity that should *provide independent, objective assurance and professional opinion in order to improve the performance of the users of public funds.* In this context, it should provide: a) *assurance services* and b) *consulting services* consisting of recommendations, guidelines, training, assistance, and other services in order to increase value and improve the entity management process (performance, i.e. expediency audit, IT audit, expertise, financial assurance services, management improvement, risk management, information safety and security, implementation of training...). Internal audit in the public sector refers to all business functions and processes, identifying deficiencies and weaknesses, and making recommendations for improvement. It should be emphasized that the Balkan countries that joined the EU managed to develop these services, while the Balkan countries that are in the process of EU accession generally provide assurance services and are in the stage of development of consulting services.

Table 3 gives a review of the model of organization and approach to state audit, the coverage of public sector parts by internal audit and its scope of work, as well as forms of cooperation between state and internal audit.

Cooperation between external and internal audit in the public sector in the Balkan countries has been established by agreement between SAI and the central harmonization unit, but in the countries that are in EU accession stage, it is still at a more formal level, and implies internal audit by state auditors. Often, the cooperation of external and internal audit in the public sector in these countries is based on initiatives undertaken by SAIs. Numerous *benefits* are expected from the establishment of better links between internal and state audit: exchange of ideas and knowledge, reducing unnecessary duplication of auditors' work, and increasing audit coverage based on risk assessment. Supreme Audit Institutions (SAIs) and internal auditors should communicate in the area of audit planning, jointly develop methodologies, organize joint training, and inform each other about submitted reports. Also, within the framework of EU accession, SAI should oversee the development of the PIFC system (and internal audit within it) in the public sector.

Cooperation between external and internal audit in the public sector in the Balkan countries has been established by agreement between SAI and the central harmonization unit, but in the countries that are in EU accession stage, it is still at a more formal level, and implies internal audit by state auditors. Often, the cooperation of external and internal audit in the public sector in these countries is based on initiatives undertaken by SAIs. Numerous *benefits* are expected from the establishment of better links between internal and state audit: exchange of ideas and knowledge, reducing unnecessary duplication of auditors' work, and increasing audit coverage based on risk assessment. Supreme Audit Institutions (SAIs) and internal auditors should communicate in the area of audit planning, jointly develop methodologies, organize joint training, and inform each other about submitted reports. Also, SAI should, in accordance with the opening of Negotiation chapter 32 – Financial Control, oversee the development of the PIFC system (and internal audit within it) in the public sector.

Table 3 External (state) and internal audit in the public sector and cooperation between them in the Balkan countries

Country	SAI		Internal audit in the public sector	
	SAI organization model	Approach to state audit	Coverage of public sector parts by internal audit	Scope of work of internal audit in the public sector
1. Slovenia	Court of Audit (CoA)	Court activity, integrated approach	At central government level, 90-100% of state entities, development at the level of local self-governments and municipalities	Assurance services* Consulting services**
2. Croatia	Collegial body (SAO)	Development of integrated approach	At central government level, 50-60% of state entities, development at the level of local self-governments and municipalities	Assurance services* Development of some consulting services**
3. Romania	Court of Audit (CoA)	Court activity, integrated approach	At central government level, 50-60% of state entities, development at the level of local self-governments and municipalities (development of partnership on a geographical basis ACoR)	Assurance services* Consulting services**
4. Bulgaria	Collegial body (NAO)	Development of integrated approach	At central government level, 90-100% of state entities, development at the level of local self-governments and municipalities	Assurance services* Consulting services**
5. Montenegro	Collegial body (SAI)	Development of integrated approach, development of performance audit	At central government level, some state entities, development at the level of local self-governments and municipalities	Mainly assurance services*
6. Bosnia and Herzegovina	Collegial body (SAO)	Development of integrated approach, development of performance audit	At central government level, 50-60% of state entities, development at the level of local self-governments and municipalities	Mainly assurance services*
7. Macedonia	Collegial body (SAO)	Development of integrated approach, development of performance audit	At central government level, 50-60% of state entities, development at the level of local self-governments and municipalities	Assurance services* Development of some consulting services**
8. Serbia	Collegial body (SAI)	Development of integrated approach, development of performance audit	At central government level, state entities, development at the level of local self-governments and municipalities	Mainly assurance services*

Source: The table was created by the authors based on: EUROSAI - ECIIA Joint Paper (2015), PIC Compendium (2014)

**Assurance services – performed through financial audit, compliance audit, evaluation of internal controls, and making proposals for their improvement*

***Consulting services – relate to the performance of: various expertise, financial assurance services, management improvement (in particular risk management), IT audits, performance audits (expediency), information safety and security*

Areas where no cooperation is achieved between internal and external audit in the public sector in the Balkan countries are (EUROSAI – ECIIA Joint Paper, 2015): evaluation of performance of internal audit units, development of internal audit procedures, implementation of audit procedures (audit of multi-location entities), and research into abuses and corruption.

The attention of the European Commission, numerous consultants, and twinning partners is focused on the implementation of the PIFC system, and, therefore, the implementation of internal audit in the public sector in the countries of the Balkans, as well as in countries covered by the European Neighbourhoods Policy (ENP) programs. The EU's assistance to the Balkan countries in building the elements of the PIFC system also includes programs that were abundant since the beginning of the 21st century: *CARDS program; Strategy paper for EU countries and individual countries that do not belong to the EU; Programs that are part of the Regional Strategy Paper; Multi-annual indicative programs; several important IPA documents for the Balkan countries; Support for Improvement in Governance and Management*; *Project Enhancement of Municipal Audit for Accountability and Efficiency in Public Finance Management.* Support to these programs and internal control reforms, including the development of cooperation between external and internal audit in the public sector, is provided by SIGMA, consulting firms, twinning arrangements, and there are also experiences of the countries that have been admitted to the EU. Also, there is support from the European Commission and its bodies, as well as other competent European institutions.

CONCLUSION

In the process of serious public sector reform in all EU and Balkan countries, there has been a change and development in the scope of work of external and internal audit of the public sector in order to contribute to transparency and accountability in the use of public funds and the prevention of public sector abuse and corruption. In addition to the control role (providing assurance services), the state audit increasingly receives a consultative role (providing recommendations and advice), resulting in the development of an integrated audit approach. Internal audit in the public sector is becoming the third line of defence for public funds users, through communication among three levels of internal oversight in defence against unplanned and irrational spending of public funds, and helps managers in the process of improving business management.

The decentralization of internal audit and the focus of the state audit on the performance audit should contribute to the greater accountability of public sector managers in the spending of public funds.

Coordination and cooperation of internal and external audit in the public sector provides benefits in the performance of their activities, but also to users of public funds, by improving the management function, i.e. system of management (use) of public funds, with the aim of fulfilling obligations and providing public services and operational spending of available public funds in order to realize the set goals.

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TENDENCIJE U RAZVOJU EKSTERNE I INTERNE REVIZIJE U JAVNOM SEKTORU U ZEMLJAMA EU I BALKANA

Iako imaju različite i jasno definisane uloge, opšta svrha eksterne i interne revizije u javnom sektoru jeste da doprinesu dobrom upravljanju javnim sredstvima, odnosno efikasnosti, efektivnosti i ekonomičnosti državne uprave. U sklopu brojnih reformi u javnom sektoru zemalja EU, kao i zemalja Balkana, koje su otpočele početkom 21. veka, eksterna revizija javnog sektora (državna revizija) razvija integralni pristup u svom delokrugu rada, što podrazumeva pružanje uveravanja Parlamentu i građanima države da se javna sredstva koriste efektivno, efikasno i ekonomično i da su finansijski izveštaji i poslovanje entiteta javnog sektora u skladu sa profesionalnom i zakonskom regulativom (akcenat je na reviziji uspeha). Interna revizija korisnika javnih sredstava pored pružanja usluga uveravanja, sve više je usmerena ka savetodavnim uslugama sa ciljem da menadžmentu pruži podršku u unapređenju upravljanja javnim resursima i rizicima, efikasnosti trošenja javnih sredstava i obezbeđenju kvalitetnih javnih usluga.

Ključne reči: državna revizija, interna revizija, javni sektor, integralni pristup, savetodavne usluge, zemlje EU i Balkana

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Review Paper

ROMANIA'S POPULATION DECLINE AND DEMOGRAPHIC FUTURE: SOCIO-ECONOMIC ASPECTS

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Abstract. *Like most of the countries around the world, European member states are suffering from the declining population, due to low birth rates and decreasing death rates. Romania's population is undergoing a series of changes that will continue to unfold in the foreseeable future. Demographic transitions are taking place in the case of all member states that are part of EU-28, with various degrees of intensity. Romania's population has been shrinking and undergoing a continuous process of erosion since 1992 when it hit a peak of 23.2 million. Under the influence of a decreasing birth rate and death rate, the population is projected to decrease from 19.8 million in 2015 to 14.5 million in 2080. This article examines how these inevitable changes will shape Romania's demographic landscape, with an emphasis on the changes over time suffered by the total population, birth rates, and life expectancy, as seen through the "Demographic Transition Model" stages as put forward by Thompson in 1929. Also, this article will touch upon some of the main economic consequences that arise as a result of these demographic transitions.*

Key words: *demographic transition, population decline, birth rates, death rates, economic consequences, pension expenditures, social expenditures, ARMA*

JEL Classification: C12, J11

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INTRODUCTION

Many European countries are facing the effects of demographic transitions, which are taking place with different levels of intensity. The birth rate and the death rate in all member states are below critical levels and are not showing signs of improvement in the near future.

Since 1960, Romania's population has seen birth rates higher than death rates, thus leading to an increase in the population, reaching a total of 23.2 million in 1992; however, this trend started to reverse reaching „22,435,205 persons in 2000, reaching 19,913,193 people in 2014" (Cristea et al., 2016, p. 29). This high point culminated with a reversal of the birth rate being surpassed by the death rate, resulting in a new phase of growth for Romania's population.

Population transition is a highly debated subject among researchers and governmental circles, its effects ranging from a smaller workforce, decreased economic growth, higher expenditures on social security programs and decreased investments (Cristea et al., 2010).

This article focuses on the demographic changes that Romania's population has gone through, with a focus on current and future trends and changes, both demographic and economic. These changes and the main causes that are responsible for the shifts that are taking place will be looked at through the "Demographic Transition Model". Also an analysis of the most pressing economic consequences will be presented.

The expected results are that Romania is currently experiencing a late stage Post-Industrial phase defined by very low birth rates and low death rates, which will continue in the future, resulting in a much smaller population with all the effects that it brings with. On the economic side, a gradual rise in government expenditures on social security and pensions is expected, also as a consequence of the demographic transition, an increase in the old-age dependency ratio is also expected.

1. THEORETICAL FRAMEWORK

The demographic aging process has emerged at a certain stage in the development of human evolution as a result of the simultaneous actions of decreasing fertility rates, a longer life expectancy, and changes in the demographic structure, caused by post-war generations on top of the age pyramid.

Population aging can be looked at as an increase in the median age of the population in a region, under the effects of a decrease in fertility rates and a simultaneous increase in life expectancy (Eurostat, 2000).

As Cristea and Mitrică (2016) presented, „at a global level, the number of older people is increasing by 2.6% per year, at a faster rate than the annual increase of the entire population, which is increasing by 1.2% per year" (Cristea & Mitrică, 2016, p. 65).

Europeans in developed countries enjoy a longer and healthier life, and the generations that follow will benefit from a better quality of life. This spectacular achievement is nevertheless accompanied by inferior fertility rates where the population replacement rate, in a large number of countries, has fallen below the natural threshold of sustainability (Börsch-Supan, 2013).

This is registered in developing countries also, Romania being one of them, with demographic shifts that are taking place in neighboring countries.

As a result, birth rates continue to decline, while the aging process of population accelerates, anticipating rapid increases in the elderly population over the coming decades (Börsch-Supan, 2013).

The challenges posed by demographic change have increasingly been the focal point of debates on the future of the EU. Population and aging of the labor force, in particular, accompanied by a decrease in the labor force, raise concerns about the future economic growth (Weil, 2006).

The natality and fertility of a population are influenced by a series of "biological, social, cultural, traditional etc. factors that are interdependent and sometimes have contradictory action on birth" (Mihăescu, 2001, p. 216).

The evolution of mortality "has an inertial load higher than any other demographic phenomenon, as well as greater stability over time" (Mihăescu, 2001, p. 220). Thus, the pursuit of its evolution over time presents fewer challenges. The interaction between fertility, mortality, and migration determines the magnitude of change in the composition of ages in different European countries, under a common direction, but at a different pace, under the impact of demographic aging. The speeding up of the aging process of the population is a constant trend. Changes in the population age structure were predictable, but the magnitude and speed with which they occurred were to some extent surprising.

Radu (2007) summarized that demographic dynamics in contemporary times can be essentially explained by four fundamental processes: the demographic transition, the population aging, the shifts in women professional activity and the migration (politic, demographic or economic).

Oliviera-Martins et al. (2005) identified the underlying causes of demographic aging, responsible for present and future challenges that need to be addressed until they are out of control. These causes are the following (Oliviera-Martins et al., 2005):

- first of all, the decrease in fertility rates recorded in recent decades led to a reduction in the relative number of young people and pushed up the share of elderly people;
- the second factor relates to the recent increases in life expectancy. When one of the key factors of aging is longevity, the aging process is treated as inevitable and global.

To better explain the changes in fertility rates and life expectancy, there are a number of models, studies, and theories that have punctuated demographic changes in the literature.

Thompson (1929) introduced the demographic transition model that laid the foundation for the study of demographic developments and changes, which were carried out in five stages (see Figure 1).

The first is the pre-industrial stage, characterized by high rates of birth and mortality. The population lives in an agrarian community characterized by a high level of birth, but which is prone to the spread of disease.

The second stage is the development stage, which is also known as the rapid expansion phase of the population, characterized by high birth rates and high mortality rates, with mortality rates lower in the first phase. At this stage, agricultural methods and food supply are improved, with crop rotation, selective growth and seeding technology being introduced. In addition, public health is increased, reducing the mortality rate, especially in childhood. Moreover, automation at an early stage is emerging and rail transport appears to allow higher mobility.

The third stage is distinguished by the urbanization process and is the late extension phase. Urbanization changes the traditional values for families, therefore increases the cost of having children and increasing women's participation in the workforce. Birth rates and mortality rates are now declining, but mortality rates are lower than birth rates, leading to annual population growth.

The fourth stage is the industrialization phase where low birth rates and low mortality rates occur.

Finally, the fifth stage is the post-industrial phase, which is defined by the overrun of the birth rate by the mortality rate, unless there is an increase in immigration (Thompson, 1929, quoted in Blacker, 1947).

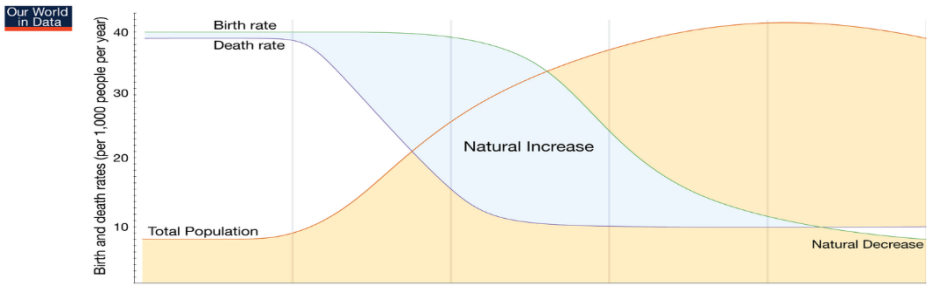

Fig. 1 Demographic Transition Model
Source: http://OurWorldInData.org/data/population-growth-vital-statistics/world-population-growth

When Thompson (1929) presented the theory of demographic transition, he defined three types of industrialized countries in which the population growth rate differs (Kirk, 1996):

- the first country, called A, faces a population decline due to the rapid decline in birth rates and the slow decline in mortality;
- for the second country, B, the birth rate, and mortality rates have fallen. However, the mortality rate has fallen earlier and faster than the birth rate, so there has been an increase in the population to the point where the birth rate has started to decline, compensating for the initial gains and the population entering in decline;
- in the third country, C, the birth rate and mortality rate change in an uncontrolled manner, as population growth will gradually decrease.

When the theory of demographic transition was presented, Thompson warned of the economic consequences of demographic change (Thompson, 1929, quoted in Kirk, 1996).

Demographic transitions are accompanied by economic patterns that result in the transfer of resources from vital areas of the economy (infrastructure spending, education, R&D) to social security, health care and pensions.

Prettner (2012) found the existence of a positive relationship between aging and economic growth, as the elderly tend to save more, thus resources are available for investments that ultimately positively affect economic growth.

Demographic aging is accompanied by increased transfers from the active segment of the population to the inactive segment represented by the elderly, by raising income taxes and increasing family expenses (Mason & Lee, 2011).

The increase in the dependency ratio as a result of demographic aging is expected to diminish the disposable income of the active population and lead to a decrease in the fertility rate (Hock & Weil, 2012).

An additional argument suggests that, with the aging of the population, there will be an increase in how funds are allocated by the government to social security programs to the detriment of education and infrastructure investment, these changes in government priorities will have a negative impact on developing countries (Eiras & Niepelt, 2012).

Population aging is often seen as a burden, which produces harmful effects on the economy, but this view is to some extent exaggerated. Some of the main challenges that arise as a result of population aging are universal and include (Prettner, 2012, p. 824):

- increasing demand for long-term care, and rising medical costs of the elderly;
- disruptions in pension and social security systems;
- pressure on public budgets and tax systems;
- adapting the economy and jobs to an aging workforce;
- potential labor market shortages as the number of older workers decreases;
- the likely need to increase the number of trained health professionals;
- the potential conflict between generations about the distribution of resources.

Wanless (2001) argues that a quarter of total health spending in a person's life is achieved over the last period of his life and does not tend to increase proportionately with age.

On the other hand, lifetime health expenditures are likely to decrease with age as the elderly cannot physically support complex medical procedures (Graham, et al., 2003).

Current pension system will cause an increase in the government budget deficit and much of the current budget deficit is due to the retirement of more educated workers (Yong & Saito, 2012).

The pension systems in Romania and Croatia, are also directly influenced by the aging of the population, largely determined by the increase in the share of people over 65 years of age, amid a rise in life expectancy and declining birth rates (Cristea et al., 2016).

2. Materials and Methods

Based on the demographic shifts that have taken place in Romania over the period from 1960 to 2016, and to correctly assert the likely direction of these changes and the economic consequences on government expenditures, a statistical method of analysis has been employed centered on the Demographic Transition (DT) Model presented by Thompson (1929) for the demographic and the economic aspects.

The analysis allows us to establish the stage which Romania is traversing according to the DT Model, so an accurate assessment of the changes that have occurred can be made. Also, it will allow us to get a better picture of how expenditures related to the demographic process will be influenced over time.

The data on population, birth rates, and death rates have been collected from Eurostat over a period from 1960 to 2016, with projections until 2080.

The date for old-age dependency ratio, pensions, social security expenses has been collected from Eurostat over a time period from 2000 to 2015, with projection made for model accuracy until 2020.

The method applied is the statistical tool focused on analysis of main indicators changes, and ARMA model used to forecast economic variables

3. ROMANIA'S DEMOGRAPHIC TRANSITION

Romania has gone through a series of significant changes between 1960 and 2016 with reverberations that will be felt long into the future.

At the cause of this transformation are the changes in crude birth rates (CBR) and crude death rates (CDR), both shaping the size and structure of the population.

Between 1960 and 2016 (see Figure 2), the population of Romania has grown steadily from 18.3 million in 1960 to a peak of 23.2 million in 1991, afterward suffering a slow, steady decline to 22.4 million in 2001, and 21.1 million in 2007, reaching a level of 19.8 million in 2016.

The crude birth rates (CBR) (see Figure 2) have moved gradually lower in the period from 1960 to 1966, from a high of 19.1 children per 1000 persons to a level of 14.2 children per 1000 persons. In 1967, a sudden spike can be observed in the CBR levels, reaching an all-time a high level of 27 children per 1000 persons.

Followed by a gradual but steady decline with peaks occurring in 1974 with a value of 20.3 children per 1000 persons. In 1983, CBR registered the minimum value of 14.2 children per 1000 persons.

The CBR starting from 1984 began to rise slowly to a peak of 16.7 children per 1000 persons recorded in 1987. After this period, it was followed by a slow and steady decrease until 2016, when it reached an all-time low of 9.6 children per 1000 persons.

A significant milestone was in 1992 (see Figure 2) when the crude birth rate (CBR) was overtaken for the first time by the crude death rate (CDR), marking a significant reversal in the structure and size of Romania's population.

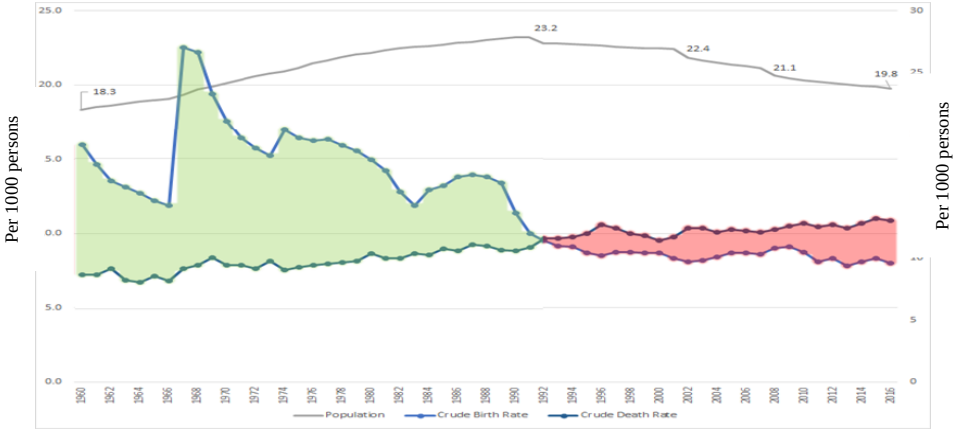

Fig. 2 Changes in crude birth rates (CBR), crude death rates (CDR) in Romania, population, 1960-2016
Source: Own creation, based on EUROSTAT Data

The crude death rate (CDR) has seen a steady increase in the period afterward, with minor fluctuations, but with a sustainable upward trend.

The lowest level for the CDR was recorded in 1964 with 8.1 deaths per 1000 persons, and the highest level, in 2015, with 13.2 deaths per 1000 persons.

The gap between the crude birth rate (CBR) and the crude death rate (CDR) will continue to widen in the future, showing little signs of reversing.

The population pyramid shows the distribution of the population by gender and by age group. Each item corresponds to the age group in the total population (male and female).

The population pyramid in case of Romania is presented in an overlapping structure, revealing the changes that took place in the population structure by age group between 2001 and 2016 (see Figure 3). The pyramid takes a narrow shape at the bottom in 2001, and has a tendency to become inverted in 2016 due to the baby boomer generations retiring, on the one hand, and from the declining birth rates and increasing death rates, on the other hand.

These baby boomer generations continue to represent an important part of the active old population on the labor market. Firsts of these large groups, which was born for a period of 20-30 years, are now approaching the retirement age.

A noticeable decrease as a result of lower birth rates can be observed (see Figure 3) in the age ranges from 10 to 34 years that have decreased in both cases, for males and females, between 2001 and 2016, giving way to an increase in the range between 35 and 69 years.

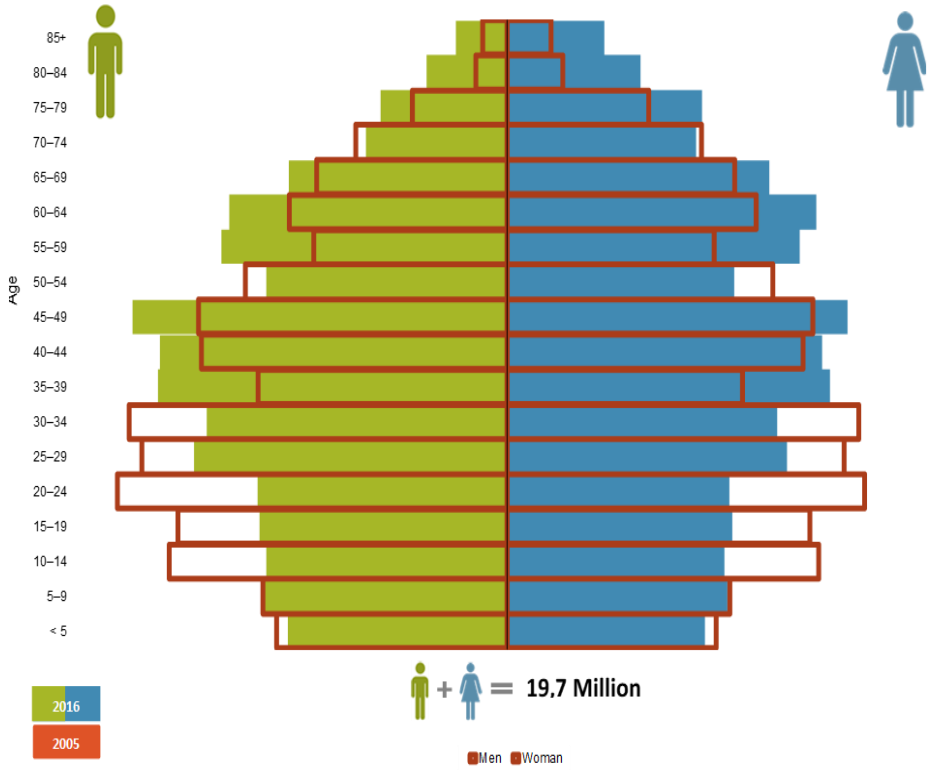

Fig. 3 Population pyramid in Romania, 2005/2016
Source: Own creation, based on EUROSTAT Data

The changes in the structure of Romania's population, as can be seen in Figure 5, are forecast to continue, according to the most recent projections (EUROPOP2015) that were made to cover the period from 2015 to 2080.

Romania's population is forecast to continue its decline from 19.8 million in 2015 to 14.5 million in 2080 (Eurostat, 2017). Similar projections have been made by Gheţău (2007), with forecasts made between 2010 and 2060, where population would continue its downward trend, due to low birth rates, reaching in 2020 the value of 20.7 million, 19.2 million in 2030, 17.3 million in 2040, 15.9 million in 2050, and finally reaching 14.1 million in 2060 (Gheţău, 2007).

Drawing a comparison between the age pyramids from 2016 and 2080 (Figure 4), we can notice that Romania's population will continue to age in the coming decades, the high number of "baby boomers" will continue to move upwards in the age pyramid, increasing the number of the old group.

In 2080, the population pyramid will change its shape to a rectangular shape, shrinking to a great extent in the middle part of the pyramid (ages 40-54).

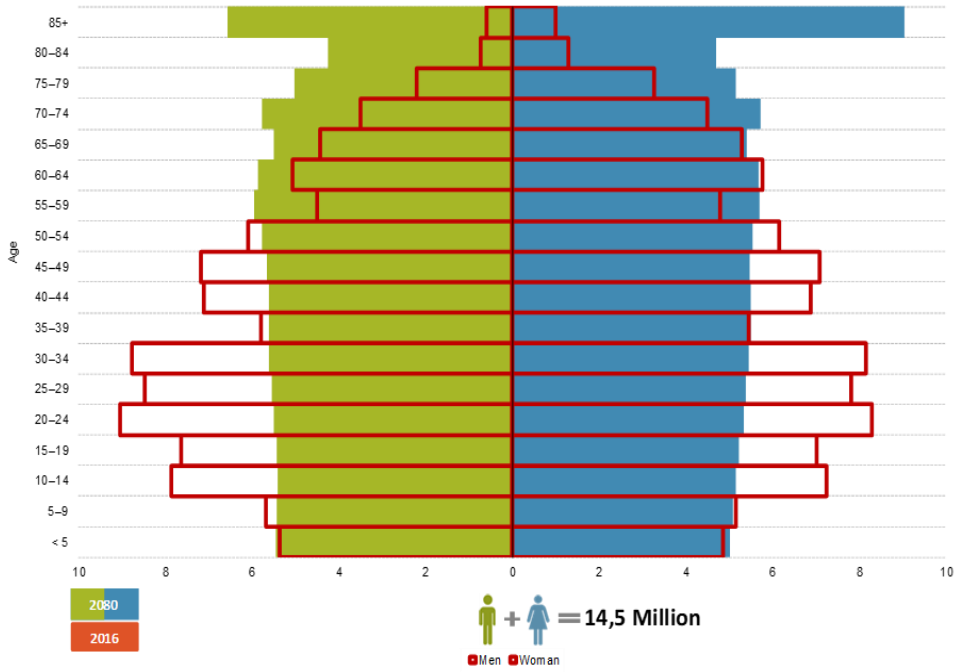

Fig. 4 Population pyramid, Romania, 2016/2080
Source: Own creation, based on EUROSTAT Data

An important aspect of the aging process is the gradual erosion of the working segment of the population that is expected to continue its decline up to 2060 (Figure 5).

The working age group of the population will shrink from 67.1% in 2016, moving slowly to 65.7% in 2020, 63.2% in 2030, reaching 54.1% in 2060, then gradually stabilizing and reaching 55.7% in 2080.

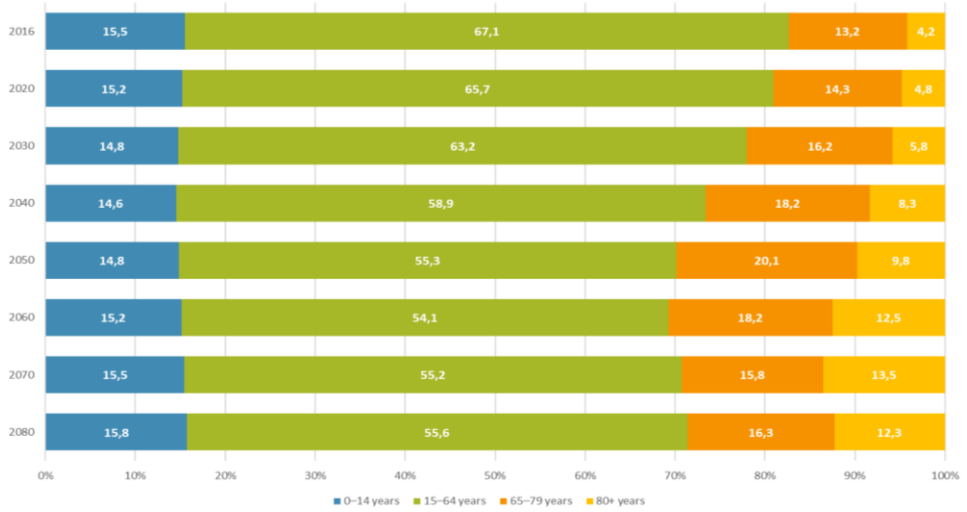

Fig. 5 Population by age groups projections, Romania
Source: Own creation, based on EUROSTAT Data

The age group between 0-14 years will shrink from 15.5 % in 2016, to a minimum of 14.6 % in 2040, gradually returning to the level recorded in 2016 of 15.5 % afterward, to a maximum level of 15.8 % in 2080.

The age groups of 65-79 years and of 80+ years will both grow in size much faster than the previous age groups, reaching 20.1% in 2050 for the 65-79 age group, and 13.5% for the 80+ age group in 2070.

4. The Impact of Demographic Changes on the Economy of Romania

The demographic transition process will cause a slowing down in growth and an increase in government expenditures, diverting funds from key critical areas of the economy to cover ever increasing social expenditures.

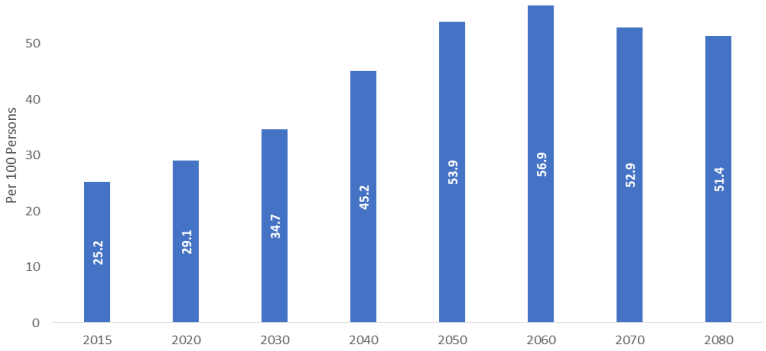

Fig. 6 Old-age dependency ratio projections, Romania
Source: Own creation, based on EUROSTAT Data

The old-age dependency ratio plots the ratio between individuals of 65 and over, generally when they become economically inactive in comparison to individuals between 15 and 64 years of age. As a result of decreasing birth rates and longer life expectancy, the old-age dependency ratio in Romania is projected to continue to increase, from 25.2 elderly per 100 working age individuals in 2015 to a peak of 56.9 in 2060, then gradually moving lower to 51.4 elderly in 2080.

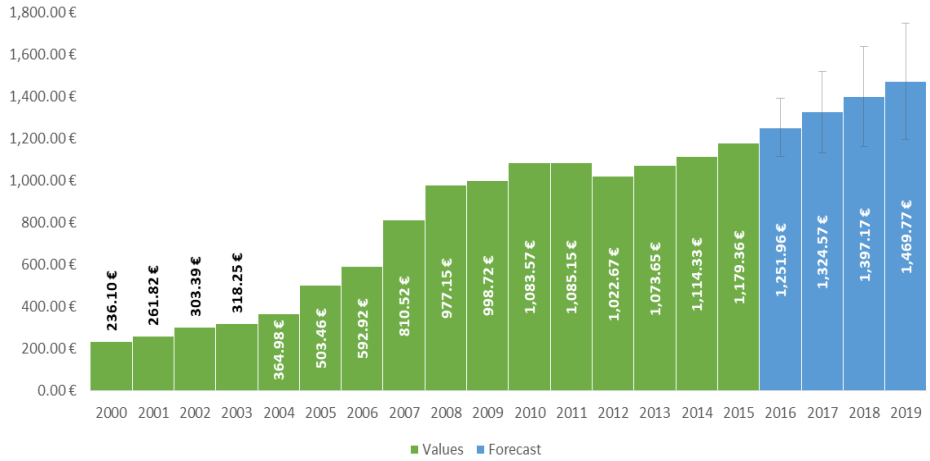

Fig. 7 Total social security expenditures per person, Romania
Source: Own creation, based on EUROSTAT Data, using ARMA model

With a rising elderly cohort, an increase in total social security expenditures per inhabitant will take place. Total social security expenditures which are comprised of social protection benefits, sickness/health care, other expenses and administrative costs have been gradually increasing from 236.1 Euros per inhabitant in 2000 to 592.92 Euros in 2006.

This trend continued, reaching 1083.57 Euros in 2010 and 1179.36 Euros per inhabitant in 2015. Projections from 2016 to 2019 continue to show increasing values, reaching 1251.96 Euros in 2016 and 1469.77 Euros in 2019 per active inhabitant.

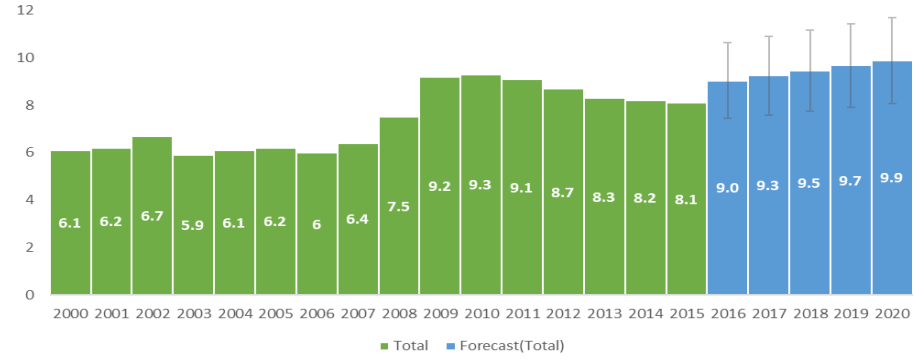

Fig. 8 Pension expenditures as % of GDP, Romania
Source: Own creation, based on EUROSTAT Data, using ARMA model

Pension expenditures, have been slowly rising from 6.1 % of GDP in 2000 to 6.7% of GDP in 2002, and then moving slightly lower to 5.9% of GDP in 2003. After this period, a steady growth of pension expenditures as a percentage in GDP took place, moving from 6.1% in 2004 to a peak of 9.2%.

The projection shows a continuation of this trend, moving from 9.3% of GDP in 2017 to a peak of 9.9% of GDP in 2020 and not showing signs of slowing down.

CONCLUSION

Romania's population is rapidly shrinking, as revealed by the data presented before, this development can be attributed to declining birth rates and the increase in life expectancy.

Analyzing the data, we can say that Romania is in the final stage of the demographic transition model, with low birth rates and low death rates, the effect was not obvious in the last decades since the "baby boomer" generation has contributed in the workforce.

The forecasts show that the population will hit 14.5 million in 2080, with a shrinking working-age segment and an increasing elderly segment of the population.

These developments will have negative effects on the country's already strained social security services which will continue worsening. The public pension as a percentage of GDP will continue to represent an ever-increasing share, raising questions about its sustainability in the not so distant future.

To a great extent, the cohorts of more educated workers that have paid more in contributions, during their working years, due to higher wages and salaries, will contribute to rising expenditures within the public pension system.

Consequently, the pensions they will receive when they retire will be larger. Therefore, an increase in retirement among educated workers is expected to considerably increase government spending on pensions.

These consequences depend to a large extent on the types of retirement policies adopted by governments because some policies can compensate for the problem of increasing the deficit in government budgets.

With the exit of the "baby boomers" that are currently in the process of retiring, an increasing strain will be placed on the country's finances, with a greater need for much careful management and new strategies to ease the pressure on future expenditure.

An obvious solution is to increase the birth rate by subsidies offered to young families, encouraging them to have more children, a further solution is to increase the retirement age of both male and female workers alike, thus delaying the increase in expenditure until more viable solutions can be implemented.

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OPADANJE POPULACIJE U RUMUNIJI I DEMOGRAFSKA BUDUĆNOST: SOCIO-EKONOMSKI ASPEKTI

Kao i većina zemalja širom sveta, zemlje članice EU pate od smanjenja broja stanovnika, zahvaljujući niskoj stopi rađanja i smanjenoj stopi mortaliteta. Rumunsko stanovništvo prolazi kroz niz promena koje će nastaviti da se odvijaju u doglednoj budućnosti. Demografske tranzicije se odvijaju u slučaju svih država članica koje su deo EU-28, sa različitim stepenima intenziteta. Rumunsko stanovništvo se smanjuje i prolazi kroz kontinuirani proces erozije od 1992. godine kada je dostigao dostiglo maksimum od 23.2 miliona. Pod uticajem smanjenja stope nataliteta i smrtnosti, procena je da će se stanovništvo smanjiti od 19.8 miliona u 2015. godini na 14.5 miliona u 2080. godini. Ovaj članak ispituje kako će ove neizbežne promene oblikovati demografsku sliku Rumunije, sa naglaskom na promene tokom vremena prouzrokovane ukupnim brojem stanovnika, stopom nataliteta i očekivanim životnim vekom, viđeno po fazama „Modela demografske tranzicije" koji je Thomson izneo 1929. godine. Takođe, ovaj rad će se baviti i glavnim ekonomskim posledicama koje nastaju kao rezultat ovih demografskih tranzicija.

Ključne reči: *demografske promene, opadanje broja stanovnika, stopa nataliteta, stopa smrtnosti, ekonomske posledice, troškovi penzija, troškovi socijalne zaštite, ARMA*

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Review Paper

FUNCTIONING MECHANISM OF BITCOIN

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Abstract. *The connection between financial innovation and information technology industry has provided and kept the crypto currencies for some ten years on the market, a kind of offset of monetary evolution after the introduction of virtual, electronic and digital money. Although their essence is still wrapped up under the veil of secrets, the facts show that the value of Bitcoin as the first crypto currency has a rising trend, and that an increasing number of firms and individuals are deciding to use it. This will result in the emergence of over 1000 new crypto currencies. This paper explains the emergence and functioning of the Bitcoin, its characteristics and functions, the benefits and risks that it carries, as well as possible scenarios of further development of the international monetary system with crypto currencies.*

Key words: *virtual currencies, crypto currencies, Bitcoin, money functions, international payments*

JEL Classification: E40, F30, O30

INTRODUCTION

The end of the 20th and the beginning of the 21st century in economic history will be recognizable by the final victory of liberal capitalism and the superiority of individualism over the collectivist structure of society. If we can summarize these processes in two words, they could be reduced to privatization and globalization. An indispensable requirement for these processes was an Information Technology revolution that compressed time and space. But it has also created a parallel, virtual world that is increasingly present

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in both real and financial flows. The combination of privatization and informatics has also created electronic money, crypto currencies and perhaps even the privatization of monetary flows. This is exactly how the idea of a currency that is totally independent of central and commercial banks, monetary authorities, different rules and regulations of the state arose.

The economic motive for the emergence of the crypto currencies is very strong given that the most profitable export product of all time is the US dollar and that it has brought huge profits to the United States. If the private sector took on many jobs and profits that traditionally belonged to the state, why would not this happen with the profit brought by the issuance of the currency? Who is the creator of the crypto currency, the state or individuals? The question is even more intriguing if it is known that the creator of the crypto currency is unknown, and that a lot of capital, time and computer work should have been invested in the project. Finally, will the world accept the new international monetary system built on a completely virtual basis?

1. FUNDAMENTALS, TYPES AND SPECIFICS OF THE CRYPTO CURRENCIES

The analysis of the etymology of the word "crypto" leads us to the Greek language in which the adjective "kryptos" means hidden, secretive. In most Indo-European languages, even in Serbian, this prefix is used to construct a compound word with the meaning of hidden or secret. According to this logic, crypto currencies would be hidden or secret currencies. And indeed, these currencies exist only in the hidden, virtual world of information technology and computers. That is why the biggest mystery will remain how this unreal money came in touch with real goods. The legend says that the first transaction with crypto currencies – Bitcoin was done in Jacksonville, Florida on May 22nd, 2010, when 10.000 Bitcoins were offered for two family pizzas (Zohar, 2015). The amount of 10.000 Bitcoins today is worth over $60 million, and then it was assumed that their value was only $100 with a suspicion that they could be exchanged for a real currency at all. So, with crypto currencies it is not known either who issued them or whether there is any real value behind them. By making a parallel with real assets, we could say that the crypto currencies are genetically modified currencies because they are present in international payments, but it is unknown what effects can they cause over long-term use.

The intention of the creators of new virtual currencies (crypto currencies) is to be used within a specific virtual community, within a specific web site or a network of users who have special software for managing this currency and making payments. Each new virtual currency has a certain type of rules for its creators about where and how it can be used as well as the specific technical infrastructure in which payment is made. The virtual currency itself, a special set of rules and technical infrastructure together form a small payment system, also called a virtual currency scheme. In closed schemes, virtual currency can neither be bought nor sold (digital currency) but only in some way earned and utilized within that system (for example, the computer game World of Warcraft and gold coins in that game). If a virtual currency can be bought with a national currency, but cannot be subsequently replaced for the national currency, it is a one-way flow scheme (a coin example on Amazon.com). Such crypto currencies are considered non-convertible. In case when a virtual currency can be bought and sold outside a particular website, it is a two-way flow scheme (convertible crypto currency). As an example of such a double-flow scheme, bitcoin appears. However, these categories can overlap (Segendorf, 2014). Therefore, virtual currencies are those that do not exist in the form of cash,

but they perform some functions of money, most often the unit of account and function of medium of exchange. As virtual currency forms, digital currencies operate in closed systems and cannot be included in real financial flows. Electronic money is the one that is kept on accounts in the form of files (electronic, not on paper). Finally, the crypto currency will also be a form of virtual currency, not being emitted by the central bank, and it will be in a specific way (by encrypting) the transmitted payment messages. It is interesting that the International Monetary Fund considers virtual currencies as a form of digital currency (Dong et all., 2016), which is in some ways illogical because virtual currencies existed even before the informational revolution. Even the IMF itself used such unit of account - special drawing rights (SDR).

Further differentiation is done depending on whether the crypto currency is centralized or decentralized. As with banknotes and metal money, the payment with crypto currencies is done by changing the ownership of the means of payment. Therefore, the ownership structure must be registered somewhere, otherwise the one who has the crypto currency would try to use it more than once. The centralized crypto currency scheme has a centralized system for verifying and executing transactions mainly by the issuer. In practice, the issuer manages all payment orders. In a decentralized virtual scheme, such as Bitcoin, transactions are verified and executed through a network of users who actively participate in it. The right to register an event is delegated to participants in the network. Decentralized virtual currencies are often based on the exchange of encrypted (coded) messages and are therefore called the crypto currency. This provides anonymity and security, and these are the key principles under which the Bitcoin, the first and the most famous crypto currency, functions.

Bitcoin is a decentralized virtual currency scheme with two-way flow and a crypto currency (Peng, 2013). It is designed to be independent of governments, banks and other institutions. It can essentially be purchased on special websites where it is exchanged for national currencies. The exchange rate of Bitcoin is determined as a function of supply and demand on the market. Bitcoin payments can be made between any entities that possess the appropriate software on a computer, smartphone or tablet. This software is called a wallet. However, Bitcoin is not digital cash, since these are not digital value units which are stored on a computer, but it is considered as a certain asset in the account. When a payment is made, the payer does not send digital notes and coins to the payee, but the account of the payer is debited, and it is claimed by the receiver`s account. Payment is done by exchanging encrypted messages and it is verified within the user's network.

Bitcoin payment is not executed in real time. It takes up to 10 minutes for the payment to be verified and the general rule is that it usually takes up to six verification circles to ensure that the payment is added to the list. Sometimes obtaining verification for payment can take up to one hour. Depending on the situation, this can be understood as a short but also as a long period of time. It should also be noted that due to the sharing of technology and the verification process, there is no central data warehouse, but each network user has the information on all parts of the data.

The concept of "electronic money" should not be confused with the crypto currency. Electronic money is an electronically stored monetary value representing an issuer's claim, it has a value equal to the amount for which it was purchased, and it is accepted by others, not only by the issuer. Crypto currency must be accepted by a sufficiently wide circle of companies. Precisely because of this, the Bitcoin is not electronic money, since it does not represent the claim of the issuer. Crypto currency can fulfill some of the aforementioned criteria, but not each one of them. This refers to the fact that most of the

crypto currencies are not accepted by a sufficiently wide circle of recipients. It is also not possible to always exchange the crypto currency for the national currency and they are expressed in different units as well. Currency is usually controlled by its issuer, however, here there is no supervision and the issuer is a non-financial company, so it is not possible to gain control over crypto currencies.

The oldest crypto currency is Bitcoin. The etymological analysis of the word Bitcoin indicates that it represents a compound composed of the word bit - which denotes the smallest unit of information in the computing (usually required to distinguish two mutually exclusive states, often represented as one (1) and zero (0), yes/no, true/false, has/no voltage, etc.), and the word coin - which is usually used to denote a metal coin of mostly smaller denominations.

Bitcoin is created with the appearance of the original article on October 30th in 2008, issued by the author under the pseudonym Satoshi Nakamoto. It has never been discovered who was the person or the team of people who actually created Bitcoin. Here exists a doubt about the connection with the World Financial Crisis that took place in 2007, and in 2008 spilled over into the real sector and turned into the World Economic Crisis. However, it is unlikely that such a complex code system could be created in such a short time. It is more likely that this system was created and that it waited for a convenient moment to enter the world stage and the crisis just created the ambiance. Due to uncertainty in the banking and financial system, the electronic crypto currency appears, which according to the original published article is not controlled by any institution but by the users themselves. This seems attractive for the placement of capital, circumvention of tax obligations and banking fees, as well as for secret transfers.

What is Bitcoin exactly? Opinions here are widely divided. One group of authors considers Bitcoin as a brand new, virtual currency. The second group says that in fact it is a kind of digital good, while some place it a means of international liquidity, whose popularity in recent years has been steadily rising primarily thanks to the ever more massive use of this crypto currency. It is interesting that there is no answer to several key questions about the Bitcoin, that the whole story is covered by a veil of secrets, despite the fact that its share in transactions has grown for years.

Bitcoin allows payments via the Internet directly with a peer-to-peer payment without the involvement of financial institutions and without their fees. What makes this currency more intriguing is the increasing number of clients operating in the real world and accepting payments in Bitcoin in return for products or services. There are thousands of websites that accept Bitcoin: in December of 2015, there were approximately 200,000 daily Bitcoin transactions (Carrick, 2016), but this volume is tiny compared to other currencies. Probably the greatest popularity of the Bitcoin is given by numerous celebrities from the world of business who optimistically look at its future. Richard Branson, a billionaire and founder of Virgin Airlines even announced the acceptance of payments in this currency for his new travel project into space. Then there is Bill Gates, who still does not accept this currency in exchange for his products, but he predicts that it will have bright future. It is possible that all this is part of a wider marketing campaign, so this inevitably poses some questions: Who benefits from Bitcoin? Are certain brokers who sell this currency, the users themselves, or maybe IT companies that sell equipment to use and create Bitcoin, earning the most? Is there latent support by some countries towards this currency and what is their ultimate motive? Naturally, there are Bitcoin skeptics who believe that it is a pyramidal structure, a monetary fraud on the global level, and that the question is when the organizers of the game will

withdraw from the story, and this virtual monetary structure will collapse in one day. The most reputable banks in the world kept their deposits anonymous, while the crypto currencies hide the transactions even from the banks that showed their unreliability in the mortgage crisis. High volatility and the possibility of speculative deals on stock exchanges, the possibility of avoiding taxes, money laundering and financing of secret actions (even terrorism) will result in an increase in the use of these currencies.

After the Bitcoin, other crypto currencies have been created, but Bitcoin remained dominant, measured by the scope of the transactions and market capitalization. More than 1000 currencies seek their place in international monetary flows. All of them are called with one name – altcoin (alternative coin) and they are trying to compensate the observed defects of Bitcoin. Long-lasting market share of Bitcoin that was over 90% fell in 2017 to below 50%. The highlight will be the creation of crypto currency derivatives that will allow additional speculation considering the high volatility of crypto currency value (Brito, 2014).

2. BITCOIN PERFORMANCE

Bitcoin is conceived as an electronic crypto currency with a final offer of 21 million units. There is a complex system for creating these currencies, the literal translation would be mining the currency. A block of 25 Bitcoins can be formed over a period of 10 minutes (Nakamoto, 2008). A block arises when a series of data is found, to which a special algorithm is applied, and it creates a precisely determined specific pattern. The size of the block decreases with the amount of already "mined" Bitcoins, and finding new Bitcoins is getting harder.

The emission of the Bitcoin is fully planned, i.e. programmed, and its management is assigned to the network itself, that is, to those computers that perform the verification of transactions. Such an algorithm is chosen because it approximates to a large extent the growth rate of extraction of certain ores such as gold, since the amount of Bitcoin that can exist at one point in the system and the maximum amount that can be "excavated" are limited. It is supposed that the Bitcoin should evolve like gold. When its excavation becomes very difficult, its value will be determined by the amount of transactions being executed and by the demand for this currency.

Some believe that this is a significant financial innovation in the last few years, and what certainly attracts attention is the sudden rise in the price of Bitcoin. The final goal of Bitcoin is to become an alternative to existing payment systems. It provides cross-border transactions without interference by states or central banks, as well as without commercial banks.

In order to use Bitcoin users must have an ID number i.e. a public key and a "private key" for verification on the public ledger, also called a blockchain. Individual users – "miners" use the power of their computers to verify the credibility of the transaction by solving technically complex problems. In return, the first user who finds the solution to the problem is rewarded with a certain number of Bitcoins, being added to the total number of Bitcoins, thereby encouraging the creation of this currency. The pre-programmed algorithm adjusts the complexity of transaction verification with the computer to ensure that each transaction takes an average of 10 minutes to verify. This same algorithm also sets the total supply of Bitcoin which is limited to 21 million and programmed not be

"excavated" by the year 2140, although it does not show the exact path of growth of this crypto currency. Certain randomness when verifying each transaction is inevitable so verification time will vary.

There are two ways to become the owner of Bitcoin, one is the aforementioned – mining, while the other is purchasing the already created Bitcoins with real currencies, on many stock exchanges that operate around the world and trade with Bitcoin. In Serbia, there are three ATMs where you can buy Bitcoin.

3. BENEFITS AND RISKS FOR BITCOIN USERS

Bitcoin and other crypto currencies record large oscillations in value on both daily and annual levels. The fact that, globally speaking, the trend of demand for Bitcoin is growing indicates the benefits that the transactions with this crypto currency are bringing. But the veil of secrets, as well as the lack of any guarantee, also carries the risk of converting real into the crypto currency. Benefits are mostly related to anonymity or integrity, convenience and speed of transaction execution, and a maximum reduction in the cost of payment. As a noted shortcoming, mostly mentioned is the lack of any kind of user protection. The most important characteristics of the Bitcoin could be indicated as (Segendorf, 2014):

- Payment by Bitcoin covers the identity of the participants in the transaction. Hence, only the person who pays and the person to whom the payment is done know the transaction. In this way, banks that guaranteed the secrecy of data and transactions were bypassed. Even the users who confirm the transaction receive only the codes, but not the names of the participants in the payment.
- Bitcoin is not regulated by any national legislation, and no appeal can be made to these business transactions. The whole system rests on the users' confidence. There is no central emitter of Bitcoin because the value units are created automatically in the network itself. Bitcoin does not represent a claim from a party, but its value is entirely based on the expectation that it can be used in further transactions. Therefore, the value is very sensitive to changes in these expectations.
- The user also has a risk of losing value either by deceit or accidentally by destroying hardware. The Bitcoin wallet and encryption keys are stored on the media (hard disk). Its damage inevitably leads to the destruction of the wallet. Also, by hacking a computer, access to the wallet and the Bitcoins in it can be gained. That is how Mt Gox was hacked, the world's largest virtual currency exchange company, located in Japan, that has been offering services around the world. It is suspected that the hackers manipulated a list of payments, so it seemed like the payment did not reach the beneficiary, and Mt Gox then made a repayment which ultimately led to the fact that it was left without Bitcoins in the long run. The company had difficulty with paying off at the end of 2013 and it completely discontinued payment at the beginning of February 2014. It is suspected that nearly 850,000 Bitcoins were missing. According to the current value, this would amount to over $2.5 billion. In Canada, there was also a $600,000 theft from a company Flexcoin that worked with Bitcoin.

There are three main types of benefits that virtual currencies like Bitcoin bring to society. Primarily, the payment is accompanied by lower transaction costs compared to the traditional payment method. This can bring significant savings to the users of Bitcoin because payments will be exempt from banking and other fees. Another significant advantage of the crypto currency is the introduction of an alternative method of payment in relation to, for

the time being, the only one officially possible through the banking system. This competition will also affect the reduction of the prices of banking services. Existence of the alternative is always beneficial to market flows. Third, as the IT revolution has eased and lowered the cost of transferring money and capital, so it might happen that the crypto currency is an innovation that will technically and economically improve international business. Permanently improving the programs on which the crypto currencies are based makes it truly possible.

Crypto currencies carry a certain risk for the economy and society. First, there is a risk that potential distrust in Bitcoin can be expanded and lead to distrust in other retailers. This can further lead to a massive rejection of this type of payment by users and companies and the return to more expensive and slower payment methods. Second, if key market participants such as banks and financial companies hold a large amount of Bitcoin, it can expose them to significant financial risk. If a fall in value occurs, there may be a halt in the functioning of the entire system. Certainly, one of the negative sides is that these virtual currency schemes, like Bitcoin, since they allow anonymous payments, can be used for money laundering and for criminal activities. An example of this is the Silk Road web site offering drug and criminal services in exchange for Bitcoins. It was closed in 2013 by the FBI.

Currently, Bitcoin is mainly used for relatively low value payments and for speculative deals on the stock market. A drastic rise in stock prices certainly contributed to the increase in its market share, but there are also factors that act in the opposite direction. Those are:

- Lack of user protection or control; legal regulation of this area would, on the one hand, reduce the risk and favorably affect the trust of clients, but would also bring a loss because it practically contradicts the essence of the Bitcoin i.e. independent functioning in relation to monetary and executive authorities.
- Bitcoin is not suitable for all types of payments; to verify the transaction, it usually takes around ten minutes, but sometimes even more than an hour which makes it unsuitable for some common payments (for example, paying cash at the supermarket).
- Variation of interest in the extraction of Bitcoins; if there is no more motive for mining Bitcoin, the whole system can easily collapse. Every day, there is an ever-decreasing amount of Bitcoin at the disposal of miners, which deteriorates the ratio of investment in hardware, electricity, and other costs relative to the value of mined Bitcoins;
- Permanently increasing the list of executed transactions; the public ledger currently has over 140 gigabytes. This makes the network bulky. The incentive to manage such an extensive list has declined, and the number of those who own it on their machines has been reduced. If this trend continues, Bitcoin can become more centralized. If the miners' incentives disappear, there is a risk of halting the decentralized transaction verification and thus making it impossible to use Bitcoins.
- The emergence of other crypto currencies; It should be kept in mind that Bitcoin is the first, but not the only crypto currency in the market. Currently, there are over 1000 crypto currencies and the number is constantly increasing. Some of them took Bitcoin`s structure as the basis and then modified or improved it. Others simply wanted to exploit and profit from the attention caused by the Bitcoin by introducing better solutions for its perceived defects. But, no doubt, they all compete with one another, seeking greater market share.

4. FUNCTIONS OF BITCOIN

If the use of Bitcoin as an international liquidity asset is being talked about and it is conditionally referred to as a currency, it is necessary to see if it could perform the function of money. The three basic functions of money are: medium of exchange, unit of account and store of value. These three functions distinguish money from other types of property in the economy, such as shares, bonds, real estate and art works. The exchange of goods and services is maximally facilitated by the discovery of money, i.e. its universality. This explains the function of money as a means of exchange (payment means). But the money itself will become the object of the exchange and will also perform the function of the trading asset. The function of the accounting unit is exhausted through the unit of measurement. Calculating and presenting values and debts is practically impossible without the accounting function of money. Finally, money with its universality allows to store value and to preserve wealth that can be replaced at any moment for any good or service.

To serve as a medium of exchange, Bitcoin must be accepted as a means of payment for a sufficiently large number of goods, services, by individuals and legal entities that will accept it as a symbol of value. Namely, fiduciary money is accepted as a medium of exchange for products and services if the market participant is certain that other participants will also accept and use this asset. However, unlike national currencies behind Bitcoin there is not one sovereign institution that guarantees its value. So, if it wants to function as a means of exchange, it has to rely on the individual expectations and confidence of the market participants who decide whether to accept it or not. From the very beginning, its use was limited to e-commerce sites, primarily on the purchase of products and services of lower values. However, with the rise in the value of Bitcoin the circle of participants in the market that accept this crypto currency is expanding. In order to protect themselves from the high volatility of Bitcoin, sellers are expressing all the prices in dollars, while prices in Bitcoins are calculated every 10 to 15 minutes, since that time is necessary to create a new block of Bitcoin and potentially influence on the change of exchange rate. Some sellers point out how much is saved by buying with Bitcoins, and what sellers are doing is reducing taxes and expenditures that are usually paid to banks and financial institutions. It can be said with certainty that Bitcoin fully functions as a means of exchange in the circle of partners who have accepted this crypto currency. But, for the time being, it does not possess the universality as the real top currencies do.

The accounting and the function of keeping value for Bitcoin and other crypto currencies are under the big question mark. The reason for such a claim lies in the high volatility of the crypto currency exchange rate. That is why sellers who accepted Bitcoin as a means of payment immediately convert it into a real currency just after the transaction is completed. Even the prices are generally expressed in real currencies, and only the payments can be realized by Bitcoins. Rogojanu and Badea (2014) noted that one of the challenges with Bitcoin is that the number of Bitcoins is limited to 21 million, but Van Alstyne (2014) pointed out that fractional ownership of a Bitcoin is possible; therefore, the 21 million is not a limiting number. Compared to national currencies whose basis is the real value of monetary gold or the guarantee of a central bank that covers trust in fiduciary money, trust in the crypto currency should be built by the market participants themselves by massively accepting the crypto currency. Because of this, Bitcoin is also subject to speculation and prone to price "bubbles". High volatility, numerous headlines about large speculative investment in Bitcoin, as well as possible hacker attacks make it not so desirable for the store

of value function and the accounting unit. However, many currencies incur extreme volatility and are still considered currencies (Dornbusch et al., 1995). Beyond the crypto currency, there is not one institution whose priority task is to fight for the stability of their value as the central bank does for the value of national currencies. Speaking of crypto currencies, all participants are motivated exclusively by profit, which in case of a major change in exchange rate can result only in inflating the bubble.

Large oscillations of Bitcoin value can be characterized as ideal for speculative stock trading. Given that the supply is relatively constant, planning the future business activities of speculators is facilitated to only following the demand. Only in May 2017, Bitcoin increased its value from about $1200 to $2400 in just ten days. This will be a sufficient motive for the emergence of other crypto currencies and their listing on the stock exchanges. Therefore, as the dominant function of crypto currencies and Bitcoin is the exchange in which they represent goods in the hands of speculators on the stock exchanges. The reason for such a conclusion is clear – such use of the crypto currency can make the greatest profit by taking the appropriate risk. The number of profit-oriented individuals is likely to be the reason for expanding its usage in practice, as well as the unexpected rise in the value of Bitcoin and other crypto currencies.

There is also a question whether Bitcoin is a medium of an international liquidity used for international payments. Since it is necessary to have partner's consent for paying with Bitcoins, this crypto currency could be declared as a medium of international liquidity. But it does not meet all the necessary conditions for performing international payments, since these transactions are not yet recorded in the balance of payments. Of course, it is a matter of time when this area will be regulated by both national legislations and the International Monetary Fund.

5. Movement of Bitcoin Value

The value of Bitcoin depends exclusively on the market, i.e. on offer and demand. The maximum supply on the market is 21 million Bitcoins, but is currently it is lower (around 16 million), since the number of Bitcoins in circulation can be increased exclusively by "mining". Additionally, it is possible to control the number of mined units through software, but that would, on the other hand, abolish the decentralization of the system.

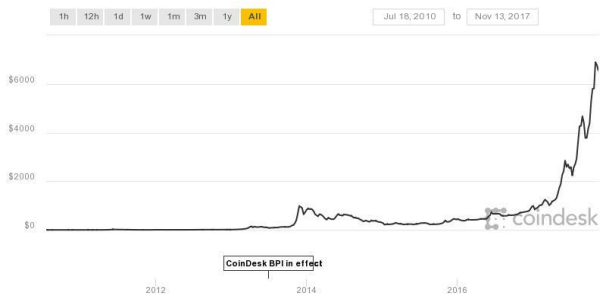

Fig. 1. Bitcoin value in US dollars over time
Source: Coin desk

From its very appearance, almost until 2013, the value of Bitcoin was negligible and was used by technologically enthusiastic people as well as those interested in cryptography. However, after that, there is an immense jump in value, especially at the end of 2013, when the price on some stock exchanges reached the maximum at that time of 1,000$. Then, after reaching the peak, numerous fluctuations occurred, but the value did not fall below 250$. Up until 2014 the trend of rapid growth in the value of Bitcoin was recorded. Steepest drop in value was recorded in 2014 (about 50%) due to a hacker attack, which led to a loss of confidence in the entire system. Since 2015 there has been a steady increase in the value of Bitcoin. As early as March 3rd, 2017, the price of Bitcoin exceeded the price of gold. On that day, the ounce of Gold reached 1233$, while Bitcoin was worth 1290$. Bitcoin was split into two derivative crypto currencies, classic bitcoin (BTC) and Bitcoin Cash (BCH) on August 1st, 2017. As a result, price climbed to 3.000$, then 4.000$, and it peaked on September 1st, 2017, when a Bitcoin was worth 5.000$. But on September 12th, 2017, the price of Bitcoin sharply declined because of a slump in the Chinese market as it represents almost one quarter of the world's global Bitcoin market, and the price dropped to $2,900 reaching its recent bottom. After recovering from this, price reached an all-time high of 7.850$. Currently the value is fluctuating between 6.000$ and 7.000$.

As demand almost exclusively affects the value of Bitcoin, it is possible to assume that the intention of the creators of this currency was to offer a very small quantity to the market and to make the market projected shallow. This means that a relatively small number of new clients could significantly increase the percentage of demand and with a presumption of stable supply would lead to a drastic increase in the price of Bitcoin. It would have a double effect. On the one hand, this would diminish the suspicions of Bitcoin that followed it from its creation, while on the other hand it would be a magnet for speculators on stock exchanges, which would further increase the demand. Thus, these two processes would feed each other, which would result in a constant increase in the value of Bitcoin. In any case, whether this strategy was planned or not, it has borne fruit and the value of Bitcoin has a growing trend with occasional falls that are necessary for popularity with speculators.

CONCLUSION

Based on the most important features of the crypto currencies (user anonymity, elimination of tax and payment fees, the risk of converting real currencies into virtual ones for which no one offers any guarantees, high volatility of value), the future of Bitcoin and other crypto currencies can take several directions:

- An optimistic scenario assumes an increase in the popularity of Bitcoin that would lead to further growth in value, provided that the maximum amount of Bitcoin that can be found on the market remains limited to 21 million units. But that would also mean the pressure to increase the supply that is probably not a problem to do from the software point, but would open doubts about the manipulation of the creators with the entire system. Also, the risks from losing state control over the monetary and fiscal policy measures are automatically opened up.

- Another possibility is the strengthening of other crypto currencies to meet the growing demand. There is already a serious competition between the crypto currencies for acquiring clients who are willing to take the risk and do business with virtual money without the guarantee of any institution;
- The third scenario is advocated by supporters of the conventional monetary system concept. According to them, it is a matter of time when the creators of crypto currencies would make a fatal error that would eliminate them from the market, or when the organizers of the game from the top of this pyramidal structure would withdraw and the whole building would collapse in one day. This could happen even if serious frauds were detected in payments with these currencies. The blast that would occur around the Bitcoin would resemble a real estate bubble in America that burst in 2007. Many also compare Bitcoin with the "Tulip Mania" that was actual in the Netherlands during the 17th century. Pessimists assume that one steep decline in the price of this virtual currency would lead to its general abandonment, huge sums of money would be lost, and Bitcoin would become just another interesting story;
- The most optimistic view is that these currencies will take a firm position in monetary relations. This does not mean that they will completely suppress the national currencies, and especially the real value of gold, as the emergence of electronic money did not completely expel the cash from circulation. It could be said that, according to this scenario, the crypto currencies would acquire their stable share in the portfolio of assets of an individual, firm, and perhaps a state. The longer the crypto currencies remain on the market, the states would be under greater pressure to legally regulate this area.

It is hard to believe that through crypto currencies private interests could be embedded into monetary policy, which should protect the interests of the state. But hasn't the Federal Reserve System, which has been functioning as a central bank of the United States, since its creation, been functioning as a private institution? Perhaps the monetary system should be put into the function of generating profit and private interests so that liberal capitalism can reach its maximum amplitude. Perhaps this is the only way to prove that economy and society, as well as nature, do not rest on extremes, but that they are only passing points, and that the essence of survival and development lies only in movement.

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MEHANIZAM FUNKCIONISANJA BITKOINA

Spoj finansijskih inovacija i informatičke tehnologije je iznedrio i već desetak godina na tržištu održava kripto valute, svojevrstan izdanak monetarne evolucije nakon uvođenja virtuelnog, elektronskog i digitalnog novca. Iako je njihova suština još uvek obavijena velom tajne, činjenice pokazuju da vrednost bitkoina kao prve kripto valute ima rastući trend, te da se sve veći broj firmi i pojedinaca opredeljuje za njegovo korišćenje. To će rezultirati pojavom preko 1000 novih kripto valuta. Ovaj rad objašnjava nastanak i funkcionisanje bitkoina, njegove karakteristike i funkcije, koristi i rizike koje sa sobom nosi, kao i moguće scenarije daljeg razvoja međunarodnog monetarnog sistema sa kripto valutama.

Ključne reči: *virtuelne valute, kriptovalute, bitkoin, funkcije novca, međunarodna plaćanja*

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