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Where are industrial policies in Serbia?

It isn't easy to tackle an issue like industrial policies without potential gaucheries. The principal reason is theoretical predilection towards treating them as marginal compared to market forces, not only in time of prosperity but, also, in time of crisis. Serbia's economy desperately calls for new anti-crisis program. Rather than lamenting over the lack of progress in the anti-crisis program formulation, in this edition of *Ekonomika Preduzeća* we point to what we believe are the logical and feasible solutions.

In the lead piece, a duo of authors, *D. Đuričin* and *I. Vuksanović*, explains that anti-crisis program requires radical changes in conducting economic policy in order to eliminate the output gap. They suggest reindustrialization as a way to make a turnaround and set the prerequisites for sustainable economic development and conceptual platform for accession to the EU.

In the following article, in the *Organization and Management* section, *N. Janićijević* explains how organizational culture shapes compensation system. The author gives the review of the compensation system characteristics that are compatible with certain types of organizational cultures.

In the following block of articles in the *Transition and Restructuring* section, academics from different universities share findings of their research in the industrial policy field, from distinct industries' perspective (brewery, textile, insurance, agriculture, etc.). A duo of authors, *B. Stojanović* and *M. Kostić,* analyzes the profitability of the enterprises in Serbia and test the role of competition policy in creating level playing field and boosting performance. In the second article in this section, a group of authors led by *A. S. Trbovich* (with *J. Subotić* and *J. Matić*), explored the correlation between the size of FDI in apparel industry and its rising export level. The authors point to the necessity of further government engagements in activities aimed at improving process of country branding along with investment incentives and policies with a purpose of advancing infrastructure, education and general business climate.

The following article, written by *B. Marović*, *V. Njegomir*, *D. Marković*, examines the market structure and competition level in the insurance industry in the former Yugoslavia environment. The authors conclude that all the countries suffer from the same problem, and that without improvements in productivity, innovation and costs, insurance companies will be doomed to performance deterioration in the future. The last trio in this section, *J. Birovljev*, *B. Ćetković*, and *G. Vukmirović* continues to analyze the level of competition in Serbia, this time in agriculture industry. They conclude that although prices and quality of inputs determine to a large extent competitiveness of this industry, macroeconomic factors that shape the overall business environment have the leading impact on the competitiveness of agricultural products in Serbia.

In the last block of articles in the same section, the authors discuss different frameworks for anti-crisis program. *Z. Anđelković*, *M. Petrović-Ranđelović*, and *V. Marjanović* explained how structural reforms in countries that successfully completed their transition influenced accelerated economic growth and provoked qualitative shift in the industrial production structure. Given those bright examples, they are offering some feasible solutions for efficient structural transformation of Serbia's economy in order to reach the goal of investment and export-oriented growth in the near time.

In the last paper in this section, we conclude with *V. Leković's* analysis of institutional environment and its role in achieving higher competitiveness levels and economic success in the national economy. The light is shed on various problems Serbia is facing today, predominantly referring to property rights, judicial independence, public administration quality and efficiency, and providing an insight into prerequisites for sustainable economic development. Continuing reluctance to implement necessary reforms in these fields will probably turn out to be Serbia's highest hurdle on the path towards its European guiding star.

Closing the output gap Serbia faces today poses a formidable challenge for policy makers. However, there is no excuse for keeping the *status quo*.

Prof. Dragan Đuričin, Editor in Chief


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REINDUSTRIALIZATION STRATEGY OF SERBIA: HOW TO GET IT AND HOW TO USE IT

Strategija reindustrijalizacije u Srbiji: kako je postići i kako je upotrebiti

Abstract

Serbia's economic crisis is not cyclical, but structural. Our starting point is that reindustrialization is the cornerstone of the anti-crisis program and the road map for coordinated response to the crisis. The article incorporates four sections, along with Introduction and Conclusion. The first part reviews the macroeconomic situation in the mid-2013. The analysis indicates that anti-crisis program is imperative due to large output gap resulting from deindustrialization. The second part of the article analyzes the concept and the main components of anti-crisis program. The third part provides economic policy proposals for reindustrialization. Finally, we identify priority sectors for reindustrialization.

For the most part, economics is not an exact science. This particularity allows that everybody thinks they know it, especially politicians. That is why economics often has no further scope than a gizmo science in the hands of politicians. Given that, this article represents an attempt to provide contribution from microeconomic (or business) perspective, while not ignoring macroeconomic one, to exit from profound and overwhelming crisis into which Serbia persistently sinks.

As business economics professionals, we share certain shame that a nation which can be proud of *Nikola Tesla* and *Mihajlo Pupin*, as well as of many great people from the field of theoretical and applied engineering, has not been able to create level playing field for development of industrial economy. Adequate institutional framework encourages technological development as well as commercial use of innovations in tradable sectors and, consequently, fosters an economic and social development which could make Serbia comparable with other European countries. The future of our future must be brighter than the time we are facing today. It will not be easy because we must simultaneously eliminate the burden from the past and adapt the economy to transformative global discontinuity challenges.

Key words: *transitional recession, deindustrialization, reindustrialization, industrial policies, automatic stabilizers, priority sectors, comparative advantage, competitive advantage, industrial economy*

Sažetak

Kriza u Srbiji nije ciklične, već strukturne prirode. Naša polazišna tačka je da je reindustrijalizacija okosnica antikriznog programa i izvodljiva putanja za koordinirani odgovor na krizu. Rad se sastoji iz četiri dela, pored uvoda i zaključka. Prvi deo daje pregled makroekonomske situacije na polovini 2013. godine. Analiza nedvosmisleno upućuje na neophodnost antikriznog programa zbog postojanja ogromnog autput gepa kao posledice deindustrijalizacije. Drugi deo se bavi konceptualnim okvirom i osnovnim komponentama antikriznog programa. Treći deo sadrži predloge za ekonomske politike bitne za reindustrijalizaciju. U četvrtom delu identifikovani su prioritetni sektori koje treba obuhvatiti procesom reindustrijalizacije.

U najvećoj meri, ekonomija nije egzaktna nauka. Ova osobenost omogućuje da svi misle da je znaju, naročito političari. Upravo iz tog razloga ekonomija često ostaje samo igračka u rukama političara. Ovaj rad predstavlja pokušaj da se iz mikroekonomskog (ili poslovnog) ugla, ne zanemarujući makroekonomski, da doprinos izlasku iz duboke i prožimajuće krize u koju Srbija neprekidno tone.

Kao profesionalci u oblasti poslovne ekonomije, delimo izvestan stid što nacija koja može biti ponosna na Nikolu Teslu, Mihajla Pupina i mnoge druge velikane razvojnog i primenjenog inženjerstva nije bila u stanju da stvori stimulativan institucionalni ambijent za razvoj industrijske privrede. Odgovarajući institucionalni okvir ohrabruje razvoj novih tehnologija kao i komercijalnu primenu inovacija u sektorima razmenljivih proizvoda, i, na toj osnovi, ekonomski i socijalni razvoj koji bi Srbiju učinio uporedivom sa drugim evropskim državama. Budućnost naših pokolenja mora biti svetlija nego što je naša sadašnjost. To neće biti lako postići pošto istovremeno moramo eliminisati breme koje smo nasledili iz prošlosti i prilagoditi ekonomiju izazovima transformišućeg globalnog diskontinuiteta.

Ključne reči: *tranziciona recesija, deindustrijalizacija, reindustrijalizacija, industrijske politike, automatski stabilizatori, prioritetni sektori, komparativna prednost, konkurentska prednost, industrijska privreda*

Introduction

There are different sets of ideas concerning Serbia's crisis resolution. Neoliberal economy is full of predilections about anti-crisis program ("let the markets take care of themselves") treating industrial policies as marginal compared to market forces. This view is burdened with many misunderstandings about the industrial policies *per se*, and, more importantly, it is not connected to reality. Let us remember that solutions to the crisis need to be logical and feasible. As far as logical side of the problem is concerned, in our opinion reindustrialization is treated as an antidote for deindustrialization, which is definitely in place in Serbia. Feasibility of the concept stems from reality check, or the evaluation of effectiveness of policy measures, as is the case in prosperous economies. Namely, our proposal of the reindustrialization strategy is conceived bearing in mind a positive experience of the emerging economies with industrial policies like BRICS[1] and "next 11"[2] that have been recording above-average growth rates and respectable macroeconomic performance. According to the last World Bank's forecasts [13], the global economy is projected to grow at an average rate of 3% over the next three years, primarily due to 6% growth in the group of emerging economies. The same forecasts indicate that the world's most developed economies are expected to experience a sluggish growth of 1.5% in the analyzed period, while the EU is likely to face a decline. Interestingly, the last group of economies was usually considered as "champions of economic liberalism".

From a political perspective, there are certain contradictions. The principal contradiction comes from the fact that reindustrialization is a politically unprofitable venture not only because the effects are uncertain, but also because it occurs in the period that is longer than usual political cycle.

Reindustrialization should not be seen as an economic panacea. Nonetheless, it requires a shift from an orthodox approach towards heterodox one [1], focusing away from macroeconomic policies (predominantly monetary and fiscal) toward industrial policies, and adjusting core macroeconomic policies in terms of implementation of automatic stabilizers. There are many how to do, how to get, and how to use. A quest for answers to the mentioned dilemmas is the purpose of this paper.

Diagnosis

In 2012 the Serbian economy experienced immense difficulties due to irreversible trends in both real and financial sectors. After GDP growth of 2% in 2011, a drop of 1.5% recorded in 2012 must be observed as a serious warning sign. Industrial production fell by 3.5%, while agricultural production declined by 8%. In the meantime, the attractiveness of the economy for investors has not significantly improved, owing to a delay in reforms typical of frequent election countries, as well as a standby in EU accession process linked to the Kosovo problem. Instead of a capital influx, 2013 has been marked by examples of capital outflows from the real sector (e.g. US Steel), as well as from the financial sector (e.g. KBC).

After the last elections in 2012, the new government has just had a near death experience. When fiscal consolidation was achieved in 4Q 2012, activities were redirected to strengthening existing strategic partnerships (in oil and gas sector) and introducing new partners into energy sector, air transportation, and agriculture. Unfortunately, the effects from government'c efforts towards energizing the economy were postponed due to the complexity of projects and burdensome red tape characterising business climate.

Statistically, at the end of 2012 Serbia was in recession since negative growth rates were recorded for the last two consecutive quarters. In 1H 2013 the economy came out of recession thanks to a positive growth rate in two quarters, but the sustainability of that growth is being called into question because the main structural imbalances have not been eliminated yet. In fact, Serbia is still faced with negative consequences of transitional recession.

The crisis has serious political consequences due to high unemployment and difficulties in functioning of the state. The unemployment rate, which in pre-crisis 2008 accounted for 14%, reached 24% in 1H 2013. The youth unemployment (15-24 years) rate that stands at 60% is of

1 BRICS - Brazil, Russia, India, China and South Africa

2 Next 11 - Bangladesh, Egypt, Indonesia, Iran, Mexico, Nigeria, Pakistan, Philippines, Turkey, South Korea and Vietnam

particular concern. According to forecasts, the unemployment rate is expected to skyrocket to 28% in the next three years. Namely, if the economy continued to grow on the basis of the existing development model, the output would actually be increased followed by a decrease in employment due to rightsizing. According to *J. Stiglitz* [11], this situation is marked as jobless recovery. Rising unemployment is constantly reducing consumption (final and investment) and reinforcing recessionary trends that threaten to turn into depression. The ratio of dependents to active population stands at 1.0:1.1, which has an adverse effect on economic functioning of the state (pensions, health care, education, science, culture, etc.) as well as on maintenance of liquidity (internal and external) of the system.

Moreover, the influence of 2008- crisis from the EU, manifested in a form of the double-dip recession, has further increased the negative impact of deeply embedded structural imbalances on macroeconomic fundamentals of Serbia's economy (appreciated FX rate, high cost of capital, prices disparities, etc.). Therefore, in 2012 the public sector and a larger part of the private sector were loss makers. Banking is still a profitable sector, but the sluggish performance of the public and private sectors and poverty in the household sector bring negative economic expectations, thereby creating new mini crisis. Financial performance of the insurance sector is also declining. However, in a poor country like Serbia, the insurance sector is small and does not have a considerable impact on the financial system and economic development.

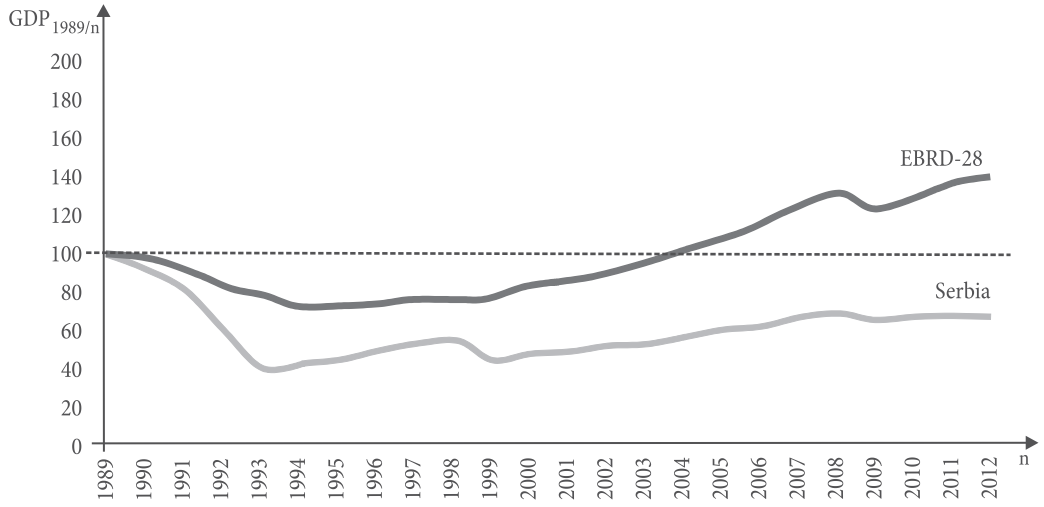
The key problem of the Serbian economy is output gap, i.e. the level of economic activity which is below its potential level. It is politically unjustified for a European country to have, for more than two decades, such a low level of economic activity that has brought about almost African level of poverty. The level of GDP in 2012 (at constant prices) compared to its level in 1989, i.e. the last year before the start of transition, is by 30% lower. In the same period, other economies in transition, denoted as EBRD-28[3], experienced an increase of over 40% on average (see Figure 1).

In general, output gap is typically associated with the first stage of transition. In later stages, restructuring of the enterprises and banks and development of investor-friendly environment usually drive structural changes and investments, which leads to the annulation of transitional output gap. The countries from the EBRD-28 group managed to break even in 2004 on average. That situation indicates the end of transition and the start of catching up to more developed economies.

The essence of structural changes during transition lies in the growth of productivity and output increase in the tradable sectors as well as cost reduction in the non-tradable sectors, which, through a positive feedback loop, affects the competitive position of the tradable sectors

3 Albania, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Montenegro, Estonia, Georgia, Croatia, Armenia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Hungary, Macedonia, Moldova, Mongolia, Poland, Romania, Russia, Slovakia, Slovenia, Serbia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan

Figure 1: Transitional output gap, 1990-2012



Source: [2, p. 143]

and creation of a new level playing field attractive for investments.

Starting the process of catching up to more developed economies was a prerequisite for the political integration of former socialist economies of Central and Eastern Europe (CEE) into the EU. In addition to positive effects from political integration, certain development incentives also emerge from the effects of the institutional convergence.

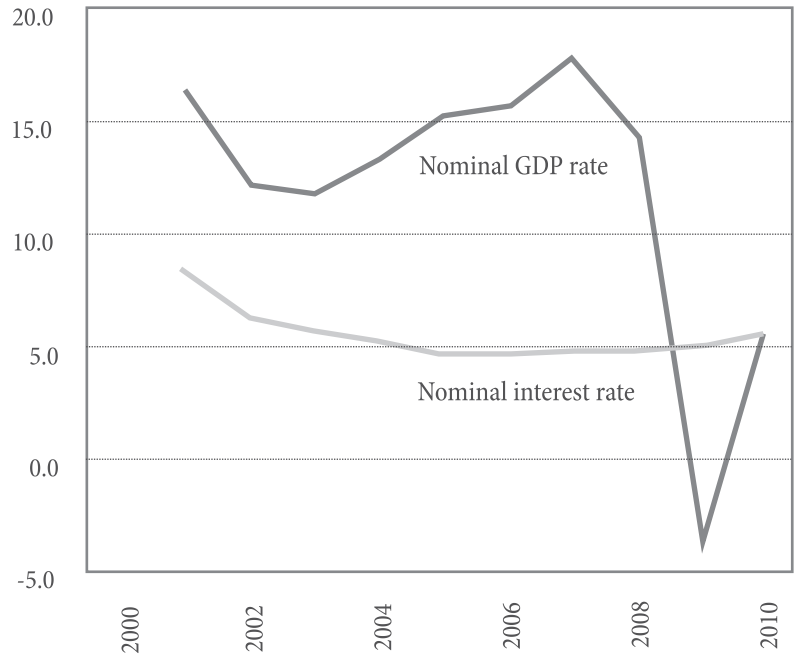
The whole period of transition in CEE (1990-2004) was marked by a significant economic optimism that probably contributed to its successful completion. Sufficiently low interest rates allowed economic expansion (see Figure 2). However, the growth was significantly fueled by foreign credits, which increased the vulnerability of these economies to the recession of 2008- due to high financial leverage. The crisis 2008- started with credit crunch and continued with demand squeeze. Government responded to credit crunch by introducing austerity measures, while the response of the corporate sector consisted of deleveraging (i.e. debt reduction by decreasing assets). In other words, credit crunch caused the contraction of production. Unfortunately, this was followed by a fall in revenue. As a result of the crisis, pessimism replaced initial optimism.

But, in the period of downturn the real economy (industry + agriculture) in post transitional countries showed the greatest vitality. Due to speculative bubbles experience, there were serious problems with investment in finance, real estate, and service sector. In the context dominated by "fear of fear", investments are the segment that suffers most. Reduced level of investments particularly affects the economies with a high level of public debt because in new circumstances it is difficult to maintain fiscal balance.

In contrast to great majority of economies in transition from CEE, which in the past two decades achieved economic progress and started catching up to the economies from Western Europe, in the same period Serbia was lagging behind CEE economies experiencing economic regression. Primary cause is an incomplete transition.

The most dramatic decline in Serbia during transition was recorded in the real economy, especially in the segment of industrial production. The value of industrial production in the period 1990-2010 dropped by more than 60%, the share of industrial production in GDP fell from 31% to 15%, while the number of industrial workers declined from 1.03 million to 0.3 million. These trends are in stark contrast not only to regional trends, but also to the trends that were present in Serbia prior to transition period. Indeed, in the

Figure 2: Growth rate and cost of capital in Central and Eastern Europe, 2000-2010



Source: The Vienna Institute for International Economic Studies

period 1960-90 the industrial production grew at an average compound rate of 8% and the economy manifested a solid degree of industrialization given that all core industries figured in its structure (e.g. steel, automobiles, basic and fine chemistry, machinery, etc.). What followed in the period after 1990 may freely be called deindustrialization. Figure 3 depicts two periods in the development of Serbian economy: the period of industrialization (1960-1990), and the period of deindustrialization (1990-2010).

Figure 4 presents the level of industrial production in Serbia in comparison to the successful transition economies from the Visegrad group[4]. The figure shows that the transition process in this group of economies was characterized by an accelerated increase in industrial production, while in Serbia the trend was completely reversed.

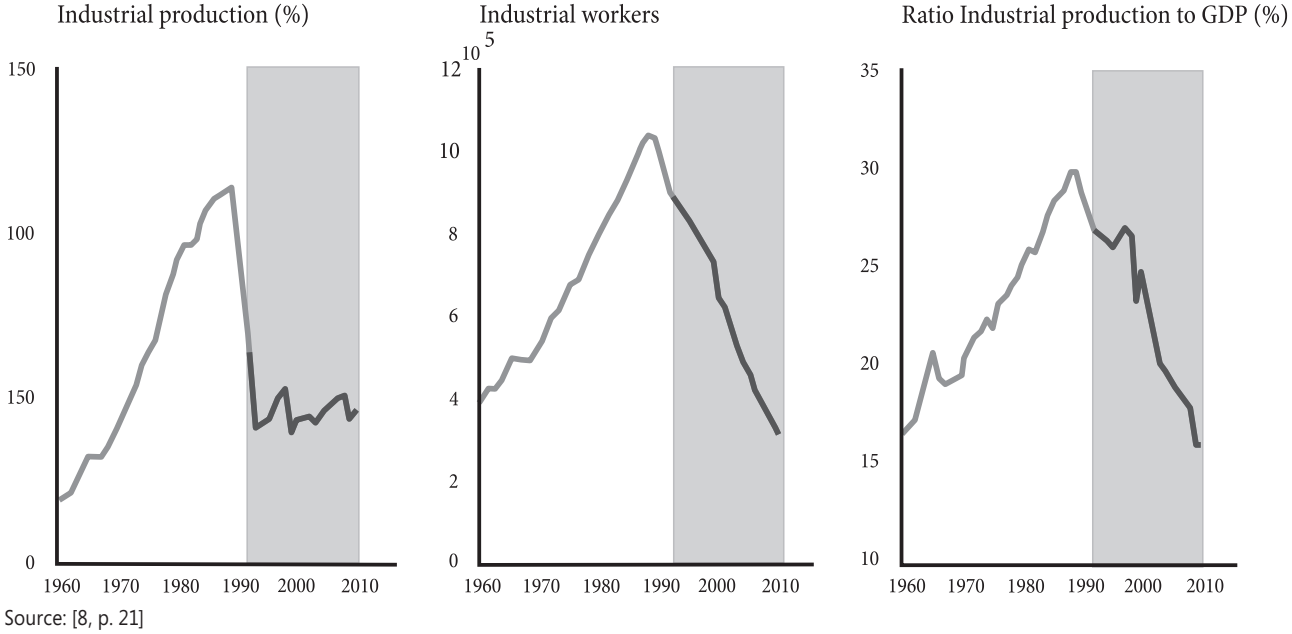
The composition of FDI is, also, one of the causes of further deepening of structural imbalances in Serbia. The structure of FDI in Serbia has been largely dominated by investments in financial intermediation (banks, insurance companies, etc.), real estate (primarily commercial), and retail. By contrast, in the countries from the Visegrad group investments in manufacturing and infrastructure have prevailed (see Figure 5). Specifically, with a share of 40% investments in manufacturing represent by far the largest component of FDI in this group.

4 Czech Republic, Poland, Slovakia and Hungary

The tradable sector is one of the biggest weaknesses of the Serbian economy. It has become especially obvious in the period of the global crisis 2008-, when the need for the foreign currency inflow based on export and substitution of import has become particularly emphasized under the pressure to reduce indebtedness (deleverage effect). However, in the case of Serbia the export is growing at nearly the same rate at which the import is declining (see Figure 6), unlike in the countries from the Visegrad group where there is a simultaneous increase in both export and import. Although at first glance this fact sounds like good news for Serbia, we have to take into account that the previous trend is happening in the conditions when the industrial production is contracting more strongly than GDP, which points to the continuation of deindustrialization. Furthermore, this situation leads to lower fiscal revenue.

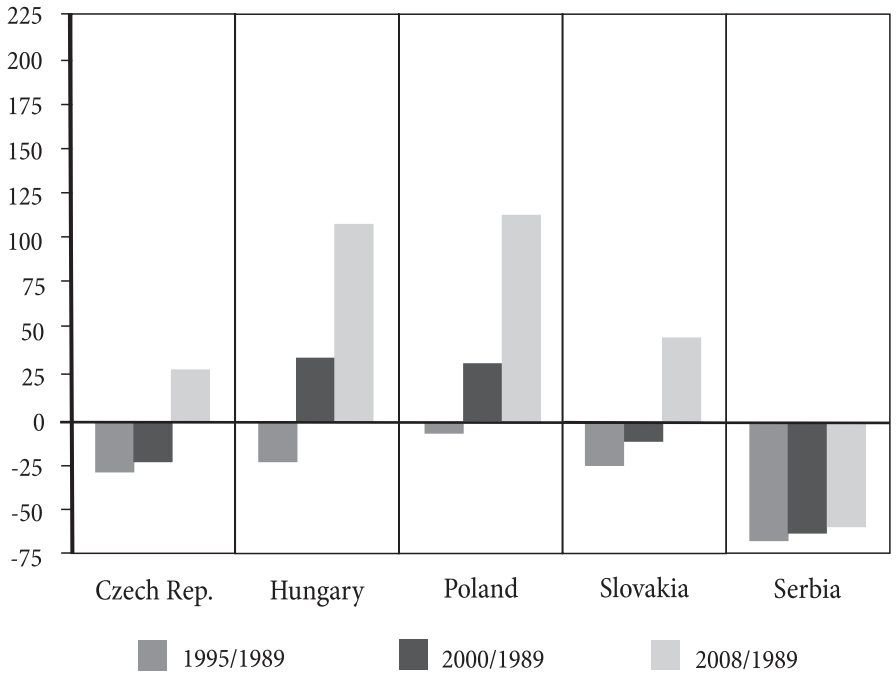
In addition to the transition strategy that has been based on capital markets development, one of the main reasons for the existing structure of the economy is also an inadequate economic policy focused on inflation (low and stable), rather than on output gap (low and stable). An exclusive reliance on monetary measures for maintaining price stability inevitably leads to sacrificing the real economy. Moreover, such an economic policy is counterproductive because it provokes artificial overheating

Figure 3: Two economic stages in Serbia: Industrialization and deindustrialization



Source: [8, p. 21]

Figure 4: Industrial production in 1995, 2000 and 2008 relative to 1989

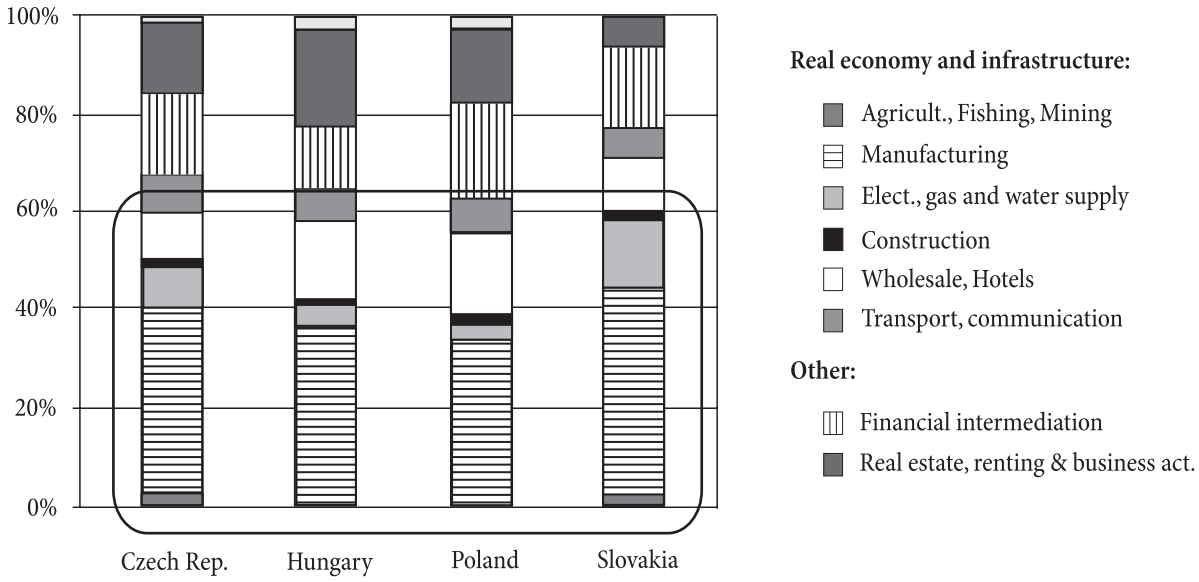


Source: The Vienna Institute for International Economic Studies

of the economy, given that capital inflows arising from privatization and FDI increase money supply. But, cooling down an artificially overheated economy using monetary measures is too expensive. In this respect, the National Bank of Serbia (NBS) has implemented measures such as raising obligatory reserves, increasing the policy rate, and intensifying open market operations (repo papers and foreign currency sales). Since all these measures increase cost of capital, it is absurd to apply them in an economy with an outstanding output gap that could be eliminated only by energizing economy with investments. Also, such policy leads to the erosion of currency reserves which the NBS uses to relieve a pressure on FX rate in the periods when repo papers are due. Finally, there is additional negative effect of this behavior, an appreciated value of local currency (RSD) in real terms.

Previously described macroeconomic fundamentals of Serbia's economy constantly send out wrong signals

Figure 5: Structure of FDI in the countries of Visegrad group



Source: The Vienna Institute for International Economic Studies

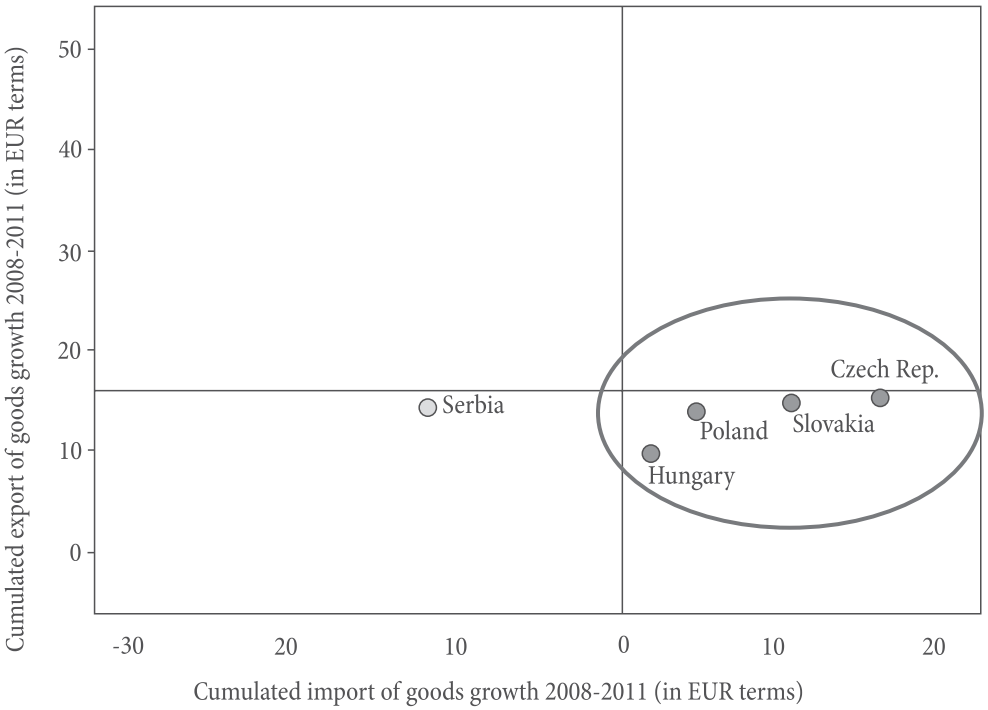
to investors (attract portfolio investors and push away investors in the real economy). The space for investment in the real economy is completely squeezed, not only as a result of an insufficient level of retained earnings, but also due to lack of a fiscal space necessary for the implementation of neo-Keynesian instruments of deficit financing (infrastructure development, credit expansion to small and medium sized enterprises, social benefits for the unemployed, public procurement, etc.) which are traditionally used to stimulate supply during recession.

In the last decade the transition architects in Serbia have been explicitly guided by a neo-liberal economic doctrine and economic policy platform known as the "Washington Consensus". Privatization, deregulation and liberalization, along with inflation targeting, are the main pillars of this platform that has been widely supported even by international financial organizations. Loans aimed at maintaining macroeconomic stability and enabling structural adjustment that are released by WB/IMF and EBRD bear out this fact. Unfortunately, there weren't enough of politicians in Serbia capable of comprehending the irrelevance of this concept in local conditions. The concept was also adopted by the expert elite in regulatory bodies and non-governmental organizations, among which there were some advocates of the platform of the complete state's withdrawal from the economy. Through their involvement in drafting systemic laws, campaigns in professional organizations and *ad hoc* bodies, and media appearances these circles significantly contributed to the promotion of the market fundamentalism mindset.

In this way, following the principle "the free market is the best regulator, the state is a bad master" the previous governments were provided with an alibi for many omissions. An exclusive focus on inflation control by using monetary measures makes sense only when the economy does not suffer from major structural imbalances that lead into recession or deflation and/or when there is demand-pull inflation. However, under conditions of significant output gap and cost-push inflation, keeping inflation under control is not guarantee for macroeconomic stability, especially when it is accompanied by liberalization (in the commercial and financial markets).

It is interesting to notice that the Serbian reformers have dealt only with the reforms in the commercial sector while the public sector has been untouched (with exception of oil and gas) and, actually, under the ownership of political parties.

Figure 6: Export and import: Serbia vs. Visegrad group, 2008-2011



Source: Eurostat and authors' calculations

Wrong economic policy had unavoidable negative consequences. The key macroeconomic indicators of the Serbian economy for the last eleven years are presented in Table 1. Undoubtedly, the achieved growth was not sufficient to eliminate transitional output gap. Also, the whole period was marked by the twin deficits (current account and budget) which, along with losses in the public sector (mainly due to price disparities) and pension fund deficit, represent the main structural imbalances that are covered by increasing debt (public and private).

It is fair to say that Serbian economy is unbalanced, impotent, and out of tune. Deindustrialization during transition has created many black wholes in the structure of the economy. The fact that colorfully illustrates impotence of the economy is that in the whole period of transition only in one year (2006) the level of FDI (privatization + green field investments) attained the level of remittances[5]. When it comes to the attractiveness of the Serbian economy to foreign investors, the situation is extremely alarming given that the inflow of FDI in 2012 amounted to just EUR 0.2 billion. The data on inflation and FX rate movements confirm that the system is completely out of tune. To be specific, in the period 2001-2011 cumulative inflation was 174%, while RSD depreciated by 78%, which points to a significant level of real appreciation of RSD relative to reserve currencies. Nominal appreciation of RSD for 1H 2013/1H 2012 is 1.4%, and real 10.5%.

In addition to conclusion that in the last eleven years structural unbalances remain unabated, another evidence of bad financial health of the Serbian economy is an absence of reserves that could be used in case that new stressors start to operate. Table 2 provides a view of vulnerability indicators. The data gives insight into the capacity of the economy to mitigate the negative effects of stress factors. Risk exposure of economy is enormous. Specifically, operational performance falls below the reference point, financial performance gravitates below or near the limit of reference point, and competitiveness is far below the level of the SEE countries.

The institutional setting (regulation + institutions + prevailing strategies of economic entities) in which the economic policy is being implemented is not satisfactory. This is particularly true for the regulatory bodies, but also refers to the mindset of emerging nomenclatura involved in the so-called "privatization" of privatization and related forms of corruption. For instance, the legal provisions in the field of privatization and financial system enacted after 2001 prescribed the change in character of shares of the corporations that had been privatized under the previous legislation and, by means of the laws with retroactive effect, enabled the change in legal status (closed joint-stock companies were transformed to open ones). This practice cleared the ground for the re-privatization in which the government acted as a catalyst while the system institutions (the Privatization Agency, the Security Commission and the Stock Exchange) provided necessary infrastructure. The argument that this practice is necessary for the development of capital market held up only until the takeovers of appropriate companies by new owners had been completed, as the same companies immediately left the stock exchange through going private transaction. Today, the capital market is still shallow and full of imperfections. For example, market capitalization for numerous companies listed on Belgrade Stock Exchange is lower than their book value, which means that their expected return on equity is lower than a factual rate of return.

5 In analyzed period remittances fluctuate from EUR 2.5 to EUR 4.0 billion per annum.

Table 1: Macroeconomic indicators in Serbia, 2002-2013

Indicators	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	1H 2013
Real GDP growth rate	4.3	2.5	9.3	5.4	3.6	5.4	3.8	-3.5	1.0	1.6	-1.7	**0,7**
Consumer price inflation, in %	14.8	7.8	13.7	17.7	6.6	11.0	8.6	6.6	10.3	7.0	12.2	**9.8**
Unemployment rate	13.3	14.6	18.5	20.8	20.9	18.1	13.6	16.1	19.2	23	23.9	**24.1**
Current account balance, in % of GDP	-4.2	-7.8	-13.8	-8.8	-10.1	-17.7	-21.6	-6.6	-6.7	-9.1	-10.5	**-3.4**
Budget deficit, in %	-4.3	-2.6	-0.3	0.3	-1.9	-1.7	-1.7	-3.4	-3.7	-4.2	-5.7	**-5.2**
Public debt, in %	72.9	66.9	55.3	52.2	37.7	31.5	29.2	34.7	44.5	48.2	59.3	**60.6**
External debt, in %	58.7	55.9	49.8	60.1	60.9	60.2	64.6	77.7	84.9	76.7	85.9	**83.1**
RSD/EUR FX rate (period average)	60.69	65.12	72.69	82.99	84.11	79.96	81.44	93.95	103.04	101.95	113.13	**112.15**

Source: NBS

Table 2: Vulnerability indicators in Serbia, 1H 2013

Indicators	Value	Reference point	Type of vulnerability
Transitional output gap	32%	0%	Operational
Okun index (inflation + unemployment)	33.9%	<12%	
Twin deficits			
▪ Current account	3.4%	<5%	
▪ Budget	5.2%	<3%	
Indebtedness			Financial
▪ Public debt/GDP	60.6	<45%	
▪ Foreign debt/GDP	83.1	<90%	
▪ Foreign debt/Export	202.8	<220%	
Credit rating			
▪ S&P	BB-/negative	investment ranking > BB	
▪ Fitch	BB-/negative	investment ranking > BB	
Export (goods)/GDP	30.3%	>50%	Competitive
Currency change (1H2013/1H2012)			
▪ Nominal	-0.9%	<-5%	
▪ Real	8.5%	<-3%	
Global competitiveness index	101th of 148	65-SEE average	
Corruption perception index	80th of 176	59-SEE average	
Ease of doing business	86th of 185	60-SEE average	
Economic freedom index	94th of 177	62-SEE average	

Source: NBS and authors' calculations

In the meantime, under the pretext of sticking to the principles of independence, the NBS is still conducting the policy of inflation targeting, relying on a partially floating FX rate as its main tool. By definition, in an economy in which import is greater than export, FX rate serves as an important tool of price control. However, the problem with this policy is the absence of an economic anchor in determining FX rate (inflation differential relative to the Eurozone, for example). Besides, interventions in the foreign exchange market are the manifestation of the voluntarism of the NBS in using currency reserves, which leads to really appreciated RSD.

During the global crisis 2008- the policy of inflation targeting has drawn fierce theoretical criticism in the countries in which it was launched. After more than two decades in use, this policy is practically being abandoned despite the fact that in these economies there are still prerequisites for its implementation (low and stable output gap and demand-pull inflation). In the case of Serbia, this policy has not been a right choice from the very beginning. In addition, by adopting such a policy the NBS fell into the trap of acting as an employer of commercial banks, rather than as a regulator, thus contributing to further deindustrialization of the economy instead to reindustrialization. As a consequence, it left room for the market cornering in relation to the yield of financial market participants. Operations with repo papers issued by the NBS provide the best illustration of the previous point. There were periods when annual rate of return on repo papers amounted to 24% (for example, in 2006) and at the same time RSD appreciated by 1% against EUR. In other words, speculative investors were able to achieve a yield of 25% in foreign currency in the economy that practically has no industry. At the beginning, repo papers were primarily used to sterilize increased money supply from privatization and FDI. When the privatization proceeds declined, repo papers changed the purpose becoming a tool for maintaining banks' positive expectations in order to prevent escape of capital from branches operating in Serbia to their headquarters. Let us recall that repo papers issued by the NBS, along with state bonds, which were used in maintaining external liquidity and budget liquidity, not only attract hot money, but also increase the cost of capital for corporate sector and households causing crowding out. For instance, in 2012 the average interest rate in Serbia in EUR amounted to around 12%.

In addition to the direct consequences of the government's missteps in transition, there are certain problems arising from its failure to act. There are several omissions in this respect. First, delay in the restructuring of state-owned companies operating in the fields of natural monopoly and network technologies (electricity, gas,

telecommunications, railways, air transport, etc.) and the emergence of new nomenclatura as a consequence of implementation of party property criteria in formation of management bodies of those entities. Second, allowing companies undergoing restructuring (with more than 50 thousand employees) to stay on the budget for an unlimited period of time due to political reasons. Third, low level of investments in infrastructure as a consequence of an unskilled administration and/or red tape. Consequently, an inadequate infrastructure keeps burdening the private sector of the economy with its inefficiency and does not sufficiently contribute to budget stability and job creation.

The appetite for investment in the real sector has been reduced as a result of appreciated FX rate and inadequate infrastructure, but also due to high cost of capital. The NBS impacts on the cost of capital, *inter alia*, through the policy rate. Since the onset of the global crisis of 2008, the policy rate in Serbia has been extremely high (up to seven times in some periods) in comparison to the economies that served as role models when opting for the policy of inflation targeting.

The policy of inflation targeting without a nominal anchor leads to the new contradiction of "strong currency in a weak economy" which is the main reason for a limited development of the tradable sector. Appreciated FX rate encourages import and discourage export, thereby acting in favor of further deindustrialization. Owing to deteriorating macroeconomic fundamentals of the system, the return on investment of the companies from the real sector could turn out to be unfavorable despite an adequate level of value creation. Inadequate profitability leads to the indebtedness growth in case of a maintaining activity level or to the effect of lost growth due to abstaining from investment. The growth of private debt adversely affects current account position as well as overall debt level (public + private). When debt is growing faster than income, the situation becomes unsustainable.

Issuing debt instruments cannot eternally compensate for the misconceptions of economic policy and gap between consumption and production. Also, it is politically unacceptable that the deficits made by one generation are constantly debt-financed and thus transferred to the next generations and/or re-inflated, i.e. lead to redistribution in the same generation between those who save and those who spend.

Anti-crisis program requires radical conceptual changes in conducting economic policy. Specifically, in order to ensure recovery it is necessary to match income and expenditure (the principle of hard budget constraints) by implementing austerity measures on the expenditure side, at the same time eliminating output gap by increasing investment spending, which, in turn, fuels the growth of revenue. These processes are interrelated. Namely, in maintaining liquidity (external and internal), apart from cost reduction, the expansion of the production of tradable goods and services is the best way to reduce import and increase export, and consequently, to achieve net positive effect on current account.

Anti-crisis program

Structural crisis cannot be overcome without an anti-crisis program. Those who believe in built-in self-restoring mechanism of the invisible hand of the market in an economy that doesn't abound in natural resources, which is small, uncompetitive and with diminishing population, with highly liberalized trade, without reserves which could be used to mitigate new stressors, in the period of double-dip recession in the EU as its immediate surroundings, are condemned to failure.

The anti-crisis program implies involvement of the government's visible hand. Serbia cannot make a turnaround in macroeconomic performance and achieve sustainable development without a proactive government that is capable of aligning new level playing field with reindustrialization goals, investing and/or attracting investors. Besides, the upward global trend in the prices of commodities and energy will constantly intensify inflationary pressure, further deepening the existing fractures of the system. Naturally, the new role of the government does not suppose going to the opposite extreme, i.e. towards the annulment of the market.

Reindustrialization should enable the elimination of structural imbalances, which leads to visible signs of recovery in the medium term and sustainable development in the

long term. It triggers rather radical shift in the economy, affecting both its anatomy and physiology. In order to realize the aforementioned, it is important to synchronize industrial development, as a principal factor of sustainable development, with two other core processes, i.e. fiscal consolidation and elimination of output gap. The first step in the right direction (or zero step) includes activities that should be undertaken in the short run, but which are also in accordance with the vision of long-term development.

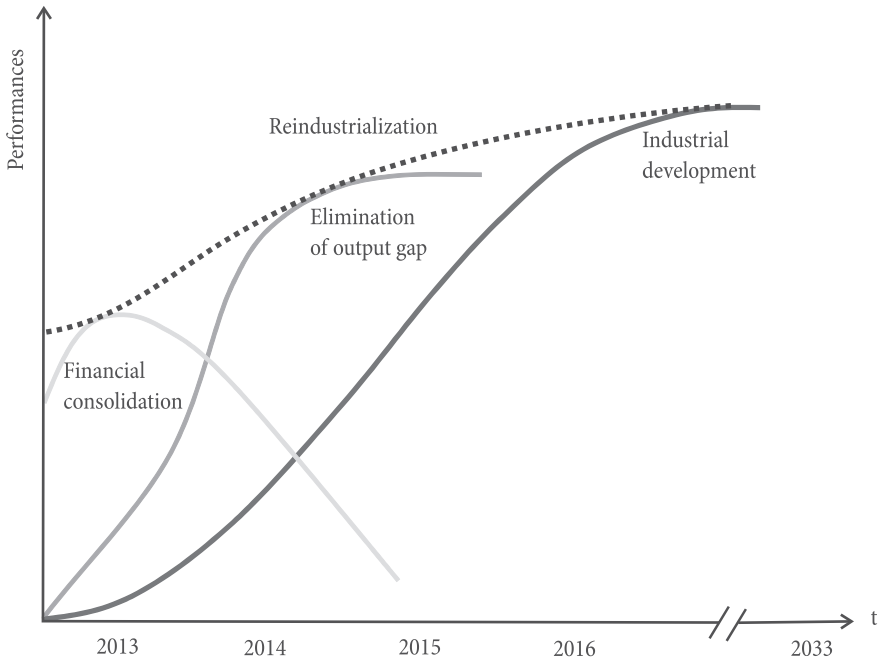
In fact, the anti-crisis program synchronizes three processes: (i) fiscal consolidation, (ii) elimination of output gap, and (iii) industrial development. All three processes of the anti-crisis program start at the same time, but have different durations and various scopes of impact on the growth of economic performance (see Figure 7). Fiscal consolidation will take effect in 1-2 years and output gap elimination in 2-5 years. The full effects of the industrial development will be felt in the period up to 20 years. The aforementioned processes must begin as soon as possible. All processes take place simultaneously. Cumulative effects of the anti-crisis program can be observed at the envelope of curves portraying performances of its core processes. Narrowing down the focus of anti-crisis program exclusively to financial consolidation, while neglecting elimination of output gap or industrial development, leads straight to bankruptcy.

Fiscal consolidation produces effects in the short run, especially in terms of initializing an increase in economic expectations. The new Government has managed to avoid bankruptcy mainly due to the program of fiscal consolidation implemented so far. Even though the fiscal consolidation is a necessary condition, it is just one of the steps on the path to sustainable development. Macroeconomic balance will be established only when the transitional output gap has been eliminated. Also, this process clears the way for the industrial development based on new technological platforms that will boost competitiveness and ensure sustainable economic development in the long run.

It is realistic to expect that the implementation of fiscal consolidation will for some time rely on the issuance of debt, including the sale of government bonds and/or taking loans from international financial organizations for maintaining macroeconomic stability and supporting structural adjustments. However, in addition to further borrowing, it is advisable to refinance the existing debt. The main reason for this is low cost of capital from international sources during the crisis 2008-.

Debt issuance can stop only when the transitional output gap has been eliminated as a result of the growth in the tradable sectors in which Serbia has comparative advantage. Sectors with comparative advantage include the sectors whose potential for growth lies in available resources

Figure 7: Three main processes of the anti-crisis program



(minerals, fertile land, skilled labor force), accessible and favorable sources of financing and position rent, all of which have potential to drive the output expansion. The tradable sectors have positive impact on external liquidity, which consequently leads to fiscal balance. Countries similar in size to Serbia are considered to be on the path of sustainable development if they export 50-70% of their production or if their export is greater than import. Today Serbia exports less than 30% of its GDP, while its import exceeds export.

In the case of Serbia, sectors with comparative advantages are: energy sector, agriculture, food processing linked with agriculture, and metallurgy. The government can take an active part in expansion of these sectors thanks to the fact that in these sectors the state is an exclusive owner, co-owner or could easily become an co-owner (for example, by conversion of debt into equity in the case of state-owned banks that have collaterals of privately-owned companies which are insolvent). In parallel with the expansion of these sectors, it is reasonable to count on the growth of the sectors based on position rent (telecommunications, infrastructure, logistics, and tourism).

However, the growth of export cannot be permanently based on the expansion of production in the sectors with comparative advantages, since it rests upon extensive development. For the time being, intensive development strategies are not feasible in Serbia. Unfortunately, the output gap cannot be eliminated by pursuing the most lucrative activities, but by doing what currently can be done. However, the expansion of the sectors with comparative advantages enables buying time before further reorientation (as soon as the output gap has been eliminated) towards other sources of competitiveness growth, primarily based on technological development and innovation. Competitiveness improvement can be achieved through an intensive industrial development based on new technological platforms.

The proposed strategy leads to the structural changes that produce effects in the long run. In the meantime, we should undertake some actions that will prepare a conceptual framework for the implementation of the strategy (the zero step). This step is rather urgent and consists of activities which the Government and the NBS could carry out in an ultra-short term in order to adapt the economic environment to suit the needs of interested investors and start as soon as possible with the elimination of output gap, which should be done in accordance with the reindustrialization strategy.

In order to do that, the Government is to take following activities: (i) to establish the Fast Response Office aimed at providing reliable assistance reliable real-time assistance to potential investors, (ii) to enact the Law on Planning and Construction, (iii) to enact the Labor Law, (iv) to fully implement the concept of corporate governance in state-owned companies, and (v) to establish the constituencies that will take charge of reindustrialization (a sector within the Ministry of Economy or the Ministry for Reindustrialization). On the other hand, the NBS has to implement following measures: (vi) to reduce obligatory reserves for the commercial banks which means more credits for tradable sectors, and (vii) to prepare the framework for new monetary model and stable FX rate policy that will favor investment in the real economy.

Last but not least, reindustrialization does not imply the revival of bankrupt companies. Reindustrialization triggers three processes at a time. First, the expansion of vital companies from tradable sectors. Second, the revitalization of state-owned companies and companies undergoing restructuring (or business controversial companies) that could help eliminate output gap. Third, introduction of start-ups in private and public sectors based on new technology platforms.

Economic policy proposals

Today, there is a universal acknowledgement in the world's most developed economies that the crisis 2008- could not be overcome by undertaking the measures and activities that were its direct causes (deregulation, securitization, privatization, and outsourcing) and that the time has come to conceptualize new economic policy platform. When market forces fail, government will come in to pick up the pieces. In the meantime, prosperous economies from developing part of the world have pursued a different economic policy platform for long time, which has enabled them to be more resilient to the effects of the

global crisis, which actually emerged as a consequence of the misconceptions from the developed part of the world.

As far as Serbia is concerned, the standard approach that suggests continuation with neoliberal approach by focusing on inflation, pro-cyclical conditionality (budget cuts and tightening of interest rates), and labor market flexibility could be counterproductive since they led to further deepening of output gap, fiscal instability, and difficulties in functioning of the state. Inflation in Serbia was double-digit in six of the last ten years. In the whole period, neither the targeted levels were reached, nor the inflation corridor was respected. For example, inflation target in 2012 was 4% with tolerance band of + 1.5% and -1.5%, while actual inflation (CPI base) was 12%. Besides, inflation targets have never been defined according to theoretical level of 2%. Also, using certain austerity measures makes sense only for prosperity stage of business cycle to keep the economy from overheating, but not in downturn when the economy is, in fact, in an under-heated mode. Finally, labor market flexibility is difficult to achieve in Serbia due to high switching costs and high level of unemployment.

New conceptual platform of economic policy should have other priorities: (i) real economy (instead of finance and services), (ii) investments (instead of consumption), (iii) savings (instead of credits), and (iv) deployment of local capacities in order to trigger production growth (instead of relying on imports). The shift in mindset is at the heart of the new policy framework in terms of replacing a brokerage mindset with an entrepreneurial one.

There is firm evidence [9] that progressive economies direct investments towards the tradable sectors, capitalizing on comparative advantage (in the early stages of economic development) or competitive advantage (in the later stages of economic development). Instead of inflation (low and stable) as a dominant goal of economic policy, some other goals should also be taken into consideration including: output gap (low and stable), sustainable employment, GDP structure (emphasis on the real economy), price parity of other types of assets (first of all, FX rate), and establishment of dynamic equilibrium between the real economy and financial sector (instead of insisting exclusively on financial system stability). In order to successfully achieve the extended list of goals, the central bank will have to renounce a part of its independence. Namely, the new structure of goals requires a close cooperation between the monetary power and the government. Also, new conceptual platform of economic policy is conceived as a combination of industrial policies and new macroeconomic policies that are based on automatic stabilizers, especially in monetary and fiscal spheres. As a result, industrial polices lead, and macroeconomic policies follow.

In industrial policy FDI are not considered as a basis for sustainable development, since in the medium term they adversely affect the growth due to the effects of transfer prices, profit repatriation, and potential gap in case of exit. New financial arrangements should enable investment without further increase in debt. The arrangements that meet the previous criterion are: (i) joint ventures up to 50% ownership for foreign partner (no casting vote JV), primarily in the sectors where Serbia has comparative advantage (energy sector, food processing, and telecommunications), (ii) concessions, with a special emphasis on the types of arrangements such as Build-Operate-Transfer (BOT) in infrastructure, metallurgy, transportation, logistics, and tourism, and (iii) Private-Public Partnerships (PPP) in utility companies and public services. A particular focus should be put on financing by sovereign wealth funds (SWF) from the countries with immense foreign currency reserves (Russian Federation, People's Republic of China, Gulf countries, Norway, Indonesia, etc.). Today's global investment arena is marked by a dominant role of SWF over FDI.

Regardless of the orientation to finance industrial development predominantly from capital raising by introducing strategic partners, it is not realistic to expect that, at least in the medium term, Serbia will be able to implement its anti-crisis program without having funds provided by international financial organizations. When considering these funds, it is necessary to draw a distinction between financing counter-cyclical macroeconomic policies and capital investments financing, having in mind that importance of the latter stems from their counter-cyclical nature. According to the new vision of development based on reindustrialization, supporting development projects with financing provided by the lenders such as WB, EBRD,

KFW DEG, etc., and by SWFs will allow easier access to IMF funds for counter-cyclical macroeconomic policies. Economies that are solvent, thanks to expansion of tradable sectors, can easily raise funds for maintaining short-term liquidity. Economies lacking dynamic development are forced to issue debt to maintain liquidity (external and internal). But, rising indebtedness increases the country risk and cost of capital, slowing down the rhythm of development.

Also, new economic policy platform has to be consistent with the development trends in the global economy. The changes are significant and relate to: (i) new model of capitalism, (ii) chaning role of industrial policies, and (iii) new priorities of technological development.

As for the model of capitalism, it has now become evident that the model of liberal capitalism has been mostly abandoned in the emerging economies. In order to streamline their progress in catching up to the most developed economies, the developing economies have assigned a special role to the government in their economic policy platforms, especially in the field of industrial policies. The countries from BRICS and "next 11" are cited as typical cases. They have adopted a model of the "managed capitalism" in terms of *R. Rajan* [9, p. 58]. The active role of the state in industrial development does not imply protectionism, but a subtle support to tradable sectors and infant industries, without intention of eliminating the market forces.

However, competitiveness requires an adequate technology. Export of competitive products (usually low-end) and import of modern technology (usually expensive) needed for their manufacturing create current account deficit that is financed by more debt, which leads to capital account deficit. As a result, such development model could be unsustainable, generating deficits in balance of payments, current account and capital account. The only way to avoid a development trap caused by the terms of trade is to develop own technology. But, the development of cutting edge technology requires time and intelligent government. By expanding production in the sectors with comparative advantage and position rent, intelligent government is buying the time and creating the ground for switch towards investments in the development of new technologies.

The modern capitalism is characterized by a change in attitude towards business elite, particularly in terms of adjusting tax and banking systems in order to encourage entrepreneurial instead of rent-seeking mindset. Also, when it comes to cross-border investments, FDI are losing primacy over the investments of SWF, which results in a growing importance of geopolitical factor to the allocation of investments, especially in basic resources (food, energy, water, etc.). In modern times, it is more important to whom you are connected than who you are.

Nowadays industrial policies have a central place in emerging economies, but they are gaining importance in the devoloped economies in crises. In both group, the main focuses of industrial policies are: basic resources, on the one hand, and high-end products, on the other. Massive production of durables is no longer on the radar of industrial policies because of hyper competition and the China syndrome.

Today, technology is a major driver of competitive advantage and environmental sustainability. In new context the main challenges of technological development include: (i) climate change, (ii) food safety, (iii) sustainable energy, (iv) integrated transport, and (v) the economic consequences of pro-ageing. Another problem associated with the previous challenges relates to the economic consequences of possible solutions, again due to well-known market imperfections (asymmetric information and external effects). In search for solutions to the previous challenges, the EU defined 36 technological platforms that should provide the base for its future competitiveness and the seeds of industrial policies.

The government-led industrial policies, mainly focused on the tradable sectors (with export and anti-import goals), are at the core of the new concept of conducting economic policies for Serbia. Industrial policies are formulated for the priority sectors. The priority sectors include: sectors with comparative advantages and sectors with competitive advantages.

According to the new economic policy platform, industrial policies lead while "hard" policies (monetary and fiscal, primarily) follow. Industrial policies and macroeconomic policies are synchronized with other policies such as regional development policy, population

policy, and competitiveness policy. The reindustrialization accounts for dominant position of the real economy and dynamic equilibrium between the real economy and financial sector, and it is also directed at achieving the goals of three main anti-crisis processes (see Figure 8).

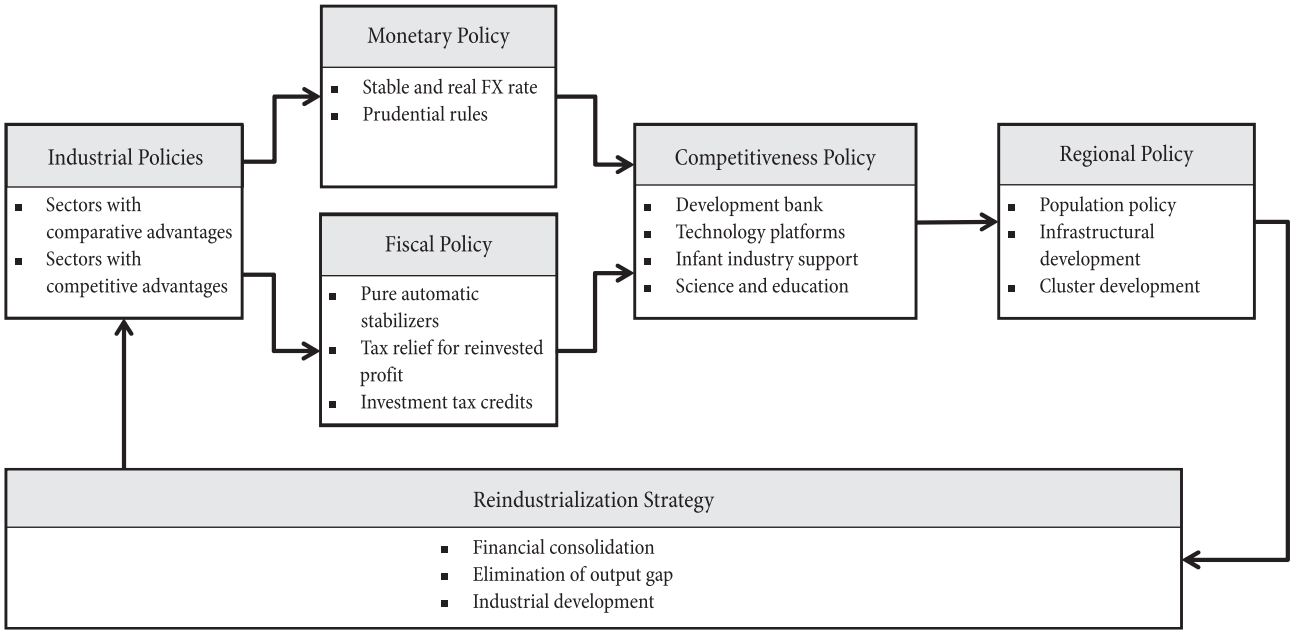
Therefore, industrial policies are the backbone of the new economic policy framework. Their primary strategic goal is to enable the growth in the tradable sectors, which leads to import substitution and export expansion, i.e. to sustainable positions of current account and capital account.

In order to achieve the above-mentioned goal, it is necessary to define appropriate industrial policy measures. For instance, the key measures in the energy sector are as follows: full-cost pricing, feed-in tariffs corrections, selection of strategic partners, establishing corporate governance in state-owned companies, and introduction of stimuli for the development of new energy and efficiency technologies. As far as pricing policy is concerned, the convergence of the electricity price towards the EU average would automatically cause an increase in value of state-owned company Electric Power Industry of Serbia (EPS) of at least EUR 1 billion. This situation would encourage strategic partners to invest more in this sector, which would further intensify the impact of the investment multiplier on other sectors. The experience of Turkey, which a few years ago replaced non-economic prices of electricity with economic prices, has shown a positive impact on investment, production growth, export and budget stability (given that electricity is considered commodity). Feed-in tariffs should create positive expectations in the renewable energy sector. Selection of strategic partners is associated with geopolitical repositioning of the country. Corporate governance should ensure efficient and ethical management practices in state-owned companies. Economic stimuli for the development of adequate technologies strongly encourage the development of other industries.

Within the new economic policy framework, macroeconomic policies are based on automatic stabilizers, especially in monetary and fiscal spheres.

In monetary policy, FX rate plays the role of a key automatic stabilizer. The current policy of regulated floating FX rate does not encourage reindustrialization. To recall, the policy that relies on targeted inflation as the main tool for achieving macroeconomic stability is not effective under conditions of serious structural imbalances causing recession or deflation, as well as under conditions of cost-push inflation, which precisely characterize the case of Serbia. Furthermore, this policy turned out to be counter-productive because of the treatment of capital inflows in the periods of massive privatization that were increasing money supply, thereby leading to an artificial overheating of the economy. Status of privatization proceeds as a form of export rather than divestment triggers increase in money supply and undermines the level of output. It

Figure 8: Policy platform for reindustrialization



is even more interesting to notice that these substantial funds did not re-enter the economy through investments (for example, by the agency of the Development Bank), but instead, by increasing money supply, they created inflationary pressure and, consequently, the need for restrictive monetary policy measures. By means of the sterilization of a part of money supply and maintaining FX rate stable through selling currency reserves exactly to the buyers of securities that the NBS had issued, privatization proceeds ended up in the bankig sector (the largest part) and abroad (a considerable part). Also, the monetary policy, escaping from the inflation caused by its own mistakes, led not only to decapitalization of financial sector, but also to really appreciated RSD and cost of capital increase, i.e. to the outcomes that unequivocally act against the real economy.

As far as FX rate policy is concerned, there are several options. Fixed FX rate is best suited to reindustrialization. Fixed FX rate encourages the expansion of real economy since it includes predictability in the calculation of the effects of capital investments, providing a clear framework for assessing the profitability of alternative investment strategies and corresponding business plans. Finally, a country that aspires to integrate into the EU must have a fixed FX rate[6].

When determining the level at which FX rate is to be fixed, one should take into consideration the purchasing power parity of a domestic currency in relation to reserve currencies, i.e. the alignment of FX rate, as a price of domestic currency, with the competitiveness of the national economy. It can be concluded that the current level of RSD relative to reserve currencies is in stark contrast to the level of competitiveness. Namely, there is an obvious competitiveness gap between the Serbian economy and the economies whose currencies serve as benchmark for determining FX rate. In an economy that has a competitive disadvantage, the parity of the price of domestic currency with the level of competitiveness can be established only by the devaluation of currency. Namely, fixed FX rate must reflect the reality. Real FX rate acts as a macroeconomic automatic stabilizer because it stimulates export and discourages import, thereby enhancing the current account and budget stability. On the other hand, opting for fixed and really appreciated FX rate may be hazardous, as it may cause serious problems in current account (for example, the case of Croatia) given that it simulates import and discourages export.

A monetary model that advocates the policy of fixed FX rate is a currency board. The currency board has been widely used. So far this monetary model has been implemented in about 70 countries, including some neighboring countries (Bosnia and Herzegovina and Bulgaria, for example).

Another possible FX rate policy aligned with reindustrialization comprises a FX rate that is favorable to export activity (depreciated value of local currency), but that at the same time ensures macroeconomic balance. For instance, China has applied this kind of FX rate regime for a long time. However, such FX rate policy is based on a superior calculation of cost components (the cost of natural resources and labor, primarily), which is difficult to achieve in most countries, including Serbia. The third option would be adopting a FX rate adjusted for inflation differential in the EU.

Each of the aforementioned FX rate policies could be implemented in order to enable the macroeconomic policy to function at its full capacity, i.e. to focus on conventional monetary instruments (reserve requirements, policy rate and open market operations).

The change in FX rate policy does not imply giving up inflation control as one of the main targets of economic policy. Anti-inflation policies should always serve to set up barriers against price increases, adhering to the principle of full employment. The elimination of output gap through expanding the real economy leads to a balance between aggregate supply and aggregate demand. In addition, anti-inflation policies require appropriate adjustments in incomes policy (wages and pensions) to prevent additional imbalances (demand inflation or deflation). One of the barriers to growing inflationary pressure may consist of determining the public-sector wages in accordance with output and productivity.

New monetary policy must take into account both price control and growth. In this respect, it is necessary for the NBS and the Government to make joint efforts

6 Among others, the "father" of Euro and Nobel Prize laureate *R. Mundell* and eminent monetary economist *S. Hanke* [5], [6], [7] support this view.

to reduce the policy rate and country risk, respectively. The cost of capital can be reduced to an acceptable level provided that the policy rate drops considerably.

Also, we should not neglect the political consequences resulting from the change in FX rate regime and adoption of the policy of real value of RSD having in mind a foreign currency clause in the existing retail and corporate loans, as well as some feasible solutions for mitigating the negative effects of policy shift. In addition to appropriate accompanying measures, the change in FX rate regime also requires good timing (e.g. introduction of strategic partners in natural monopolies and network technologies).

The fiscal policy should also be based on automatic stabilizers. Today, a general consensus has emerged that "clean" fiscal stabilizers such as unemployment compensation and benefits play a key role during recession. In the fiscal sphere, some other measures can also be implemented to boost the spirit of reindustrialization including tax holiday for investors in the priority sectors or tax relief on reinvested profits.

However, the truth is that the success of macroeconomic policy depends more on monetary measures than on fiscal ones, as it is well-known that when monetary and fiscal policies are in contradiction, the economy will follow monetary policy measures (*M. Freedman*'s rule). In a word, the critical success factors of the growth in the real economy come from monetary side (money supply, cost of capital and FX rate).

Priority sectors for reindustrialization

As we already identified, the key sectors for reindustrialization are: (i) sectors with comparative advantage, and (ii) sectors with competitive advantage.

(i) *Sectors with comparative advantage.* The expansion of sectors with comparative advantage is primarily aimed at eliminating output gap, ensuring fiscal stability and buying time before the industrial development based on new technological platforms happens. For Serbia, the main sectors with comparative advantages are as follows:

1. Energy
2. Agriculture
3. Food processing
4. Dairy
5. Metallurgy
6. Infrastructure
7. Transport and logistics
8. ICT
9. Tourism

(ii) *Sectors with competitive advantage.* The sectors with competitive advantage are the most important engine of future industrial development that will be based principally on the use of advanced technology. In the sectors with competitive advantage, there is the largest difference between the level of value added and costs. In the case of Serbia, this group of sectors includes:

10. Construction
11. Metals processing
12. Vehicles
13. Pharmaceutical
14. Agricultural machinery
15. Military
16. Pro-ageing

Industrial policies are conceived having in mind the characteristics of each priority sector (sector-specific policies). Macroeconomic policies (monetary and fiscal, above all) actually tend to lubricate the industrial policies in the priority sectors. Macroeconomic policies function by means of automatic stabilizers.

The development of regulatory framework (regulation + institutions) must have a "zero tolerance" in terms of compatibility with the relevant regulatory framework and specific guidelines in the EU. Once this condition has been met, the strategies of economic entities will become compatible with the EU regulations as well as with the economic development goals of the national economy.

The first step in the elimination of output gap through expanding production in the sectors with comparative advantage consists of finding strategic partners that would be interested to buy equity in the state-owned companies from energy sector, agriculture, food processing, logistics and infrastructure. On the other hand, the industrial development and build-up of the sectors with competitive advantage highly depend on the development of conceptual infrastructure and Serbia's integration into the EU and its techno-economic space (36 European technology platforms).

Despite the fact that Serbia is a small and underdeveloped country whose economy is unbalanced, impotent and out of tune, it does not mean that we have to give up the big ideas like, for example, the development of technology platforms that are the building blocks of future competitiveness. In this respect, the effects of economies of scale and scope should be taken into account. For instance, the development of nuclear medicine as part of pro-ageing industry energizes the development of pharmacy, health tourism, transportation, etc. Furthermore, the previous orientation puts emphasis on the role of science in the economy and creates opportunities for an active involvement of the technocratic elite in economic development, which has been completely off the radar of policy makers in the last period. The aforementioned should ensure the development of the tacit knowledge, especially in the domain of new technologies, which is considered nowadays as a critical success factor in creating competitive advantage of each national economy. Moreover, tacit knowledge opens up the possibilities of self-employment through the development of business incubators, as well as small and medium-sized enterprises that capitalize on technological breakthroughs and their commercialization. *H. Simon's* empirical studies [10] indicate that such enterprises are seen as the hidden champions of competitiveness, which is particularly true in the most competitive economies like Germany.

A government that places a high priority on technological development by strengthening the role of University, scientific institutes and R&D units in companies, is actually carrying out the scientification of society. In that way, the government is preventing the spread of populism, largely promoted by media that today represent a real threat to sustainable economic and social development, since they lead people (especially young generation) in the wrong direction, causing the feelings of alienation and defeatism, as well as decadence.

The economy that formulates its anti-crisis program on the basis of pro-investment mindset should have enough specialists in the field of project management. Experts in this field must have a certified expertise (e.g. PMP certificate), experience and potential for advancement. The first step in the right direction would be to form a group of credible experts at the level of the Government within the Fast Response Office. The Office will be in charge of the following tasks: communication with potential investors, project documentation preparation, providing assistance in negotiations, drafting financial proposals, issuing temporary orders to speed up investments before the enactment of appropriate legislation, monitoring and follow-up of the project in the public and private sectors, etc.

Conclusion

In the last decade of the past century, sometimes designated as "decade of transition", Serbia actually was in confusion. Economic transition was slowed down due to geopolitical *status quo* and its economic consequences (dissolution of Yugoslavia's market, wars for former state heritage, economic sanctions, and physical destruction of infrastructure and production capacities). In the period after political changes in 2000, the economic transition accelerated but it was burdened with consequences of deindustrialization and severe political consequences of excommunication from the EU mainstream. Besides, the previous decade was also marked by certain missteps and oversights in strategy of economic transition by itself. As consequence, output gap has remained the main problem of the economy. It causes inflationary pressure, twin deficits (current account and budget), high level of unemployment, and related inconveniences.

In searching for solution, first we must face reality. The very essence of our reindustrialization proposal lies in the elimination of output gap. The main challenge raised by transitional recession in Serbia is to design a framework and road map for coordinated response to deindustrialization that recognizes the different constraints faced by individual sectors and industries. In order to do this, the reindustrialization has to accomplish three objectives. First, it should be conceptual platform for anti-crisis program and a strategy of sustainable economic development. Development of industrial economy is guiding idea for the structural changes, aimed at enabling the change in the existing institutional setting, which leads to the improvement of macroeconomic fundamentals of the system and elimination of deeply rooted structural imbalances. Second, reindustrialization should prevent

depopulation of the country, which logically goes hand in hand with deindustrialization. Third, reindustrialization is a prerequisite for political stability of the state that, having left several transitional entities in the recent history, finally has started its own geopolitical and economic transition but with economic burden and without allies.

Sustainable growth, low and stable output gap, and increase in competitiveness of the national economy are preconditions for political stability of Serbia and the completion of the EU accession process. In order to achieve these goals, it is necessary to take the following steps. First, the economic policy platform should be defined taking into account not only macroeconomic perspective, but also microeconomic (or business) one. Clear development priorities supported by appropriate industrial policies, stable and realistic FX rate, competitive cost of capital, comprehensive infrastructure, and explicit and codified tax system are the prerequisites for an investor-friendly business environment. Second, it is of paramount importance to carry out the restructuring of state-owned companies, especially in tradable sectors and services, and to ensure their operation on the principles that apply to the private sector, so that they can contribute to infrastructure development, improvement of current account position, and job creation. State-owned companies in network technologies and natural monopoly need to be governed by professional managers, guided by business plan and capital investments, all in compliance with the principles of corporate governance. Third, build up the infrastructure (conceptual and physical) from all disposable resources to enable the achievement of the previous goals.

Naturally, the implementation of reindustrialization requires a more complex economic policy platform that would create new level playing field enabling handshake between the government's visible hand (automatic stabilizers in monetary and fiscal spheres and industrial policies for tradable sectors) and invisible hand of the market providing selection environment for all economic agents. Our proposal is an attempt to restore balance between market and government with greater transparency and accountability, with short run actions consistent with long run vision, without irreversibility and asymmetries. Reindustrialization is a more dynamic and more sanguine way of moving the economy in that direction.

Our proposals are not based on redistribution of wealth and factors of production, but rather on value creation. Even with economically effective and socially fair mechanisms of redistribution in place, the economic development of Serbia could not have been established in a sustainable manner at least due to an insufficient level of wealth for redistribution. Moreover, the cornerstones of our proposal include investments in the tradable sectors and intelligent state that directs development towards tradable sectors through regulatory rules and/or acts as an investor. Such a state sticks to the principle of hard budget constraint in terms of adjusting expenditures to revenues. Delay in the implementation of the reindustrialization does not diminish its relevance, but actually increases switching costs and postpones positive effects.

The proposed strategy of reindustrialization is not only a framework for resolution of transitional recession and a road map for sustainable development, but also a prerequisite for the geopolitical survival of Serbia. Moreover, this strategy should be a conceptual platform if Serbia wants to be a part of the EU club. Serbia will be able to join the EU only if it increases output by using its comparative advantages that enhance investment and trade with the EU partners, imposes hard budget constraint (both macro and micro), creates stable currency and financial system, and develops an explicit and codified tax system, all attractive to investors (in the tradable and non-tradable sectors). Without these, the burden remains intact and capacity for quick response will wane. The previous is of paramount importance because the age we are witnessing is the age of transformative global discontinuity.

Our proposals do not analyze the political dimension of the problem, which, of course, constitutes an essential element of a complex equation of reindustrialization. Reindustrialization should start immediately with a synchronization of three complex, mutually interdependent and subtle processes which, in fact, require investment of an immense political capital, whose effects are uncertain and can be expected in the time period that is longer than the duration of a usual political cycle.

However, reindustrialization must be seen as critical not only from economic, but also from political perspective. The economy is the foundation of a society. Experience

shows that sustainable economic development and political stability at this level of economic development are based on tradable goods and services, i.e. on the real economy (industry and agriculture). Reindustrialization could solve the crisis of confidence, enabling Serbia to return to industrial economy development model. It largely depends on the statesmen, not politicians, and their readiness to first and foremost consider the economic consequences of the political decisions, giving priority to the return on investment over the return of voters, and taking the lead. Other alternatives seem like moving chairs on the Titanic.

Statesmen know when to take advises from knowledgeable people in order to find logical and feasible solutions. You cannot change personal feelings influenced by the national culture mindset, but you can change mind setting by developing new level playing field and, thereby, start to change this mindset.

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MATCHING COMPENSATION SYSTEM WITH THE TYPE OF ORGANIZATIONAL CULTURE[1]

Slaganje sistema kompenzacija sa tipom organizacione kulture

Abstract

The paper explores mutual impact and alignment of organizational culture and compensation system in a company. The starting assumption is that both impact the behavior and performance of employees and that their harmonization is very important for successful functioning of an organization. The mechanism by which the culture of an organization impacts the employees and managers' compensation system is described, but also vice versa, i.e. how the compensation system impacts the shaping of organizational culture. Starting from the classification of organization culture types known as Competing Values Framework, the compensation system characteristics that are compatible with certain types of organizational cultures are described in detail. It is shown how the purpose and aim of the compensation system, rewarding criterion, the role of the leader, portion of incentive payments, development and formalization of the performance appraisal system, selection of performance criteria and their nature, time horizon of performance appraisal, and development and importance of benefits differ in different types of organizational cultures.

Key words: *organizational culture, motivation, compensation*

Sažetak

U radu se istražuje međusobni uticaj i slaganje organizacione kulture i sistema kompenzacija u preduzeću. Polazna pretpostavka je da oboje utiču na ponašanje i performanse zaposlenih, te da je njihova usklađenost veoma važna za uspešno funkcionisanje organizacije. Opisan je mehanizam uticaja organizacione kulture na sistem kompenzacija zaposlenih i menadžera u njoj, ali i obratno, kako sistem kompenzacija utiče na oblikovanje organizacione kulture. Polazeći od klasifikacije tipova organizacione kulture poznate kao Model konkurišućih vrednosti, detaljno su opisane karakteristike sistema kompenzacija koje su kompatibilne sa pojedinim tipovima organizacione kulture. Pokazano je kako se svrha i cilj sistema kompenzacija, kriterijum nagrađivanja, uloga lidera, udeo stimulativnih nagrada, razvijenost i formalizovanost sistema ocene učinaka, izbor kriterijuma ocene učinaka i njihova priroda, vremenski horizont ocene učinaka, razvijenost i važnost beneficija razlikuju od jednog do drugog tipa organizacione kulture.

Ključne reči: *organizaciona kultura, motivacija, kompenzacija*

Introduction

There is a mutual and two-way impact between the organizational culture and the system of a company employees' compensation. Not only does the company culture significantly impact the shaping of the system of company employees' compensation, but also the compensation system in the company significantly influences the shaping of its organizational culture. Thus, harmonization of organizational culture and compensation system in a company ensures their synergetic and positive impact on company performance [26], [6]. For company management, it is extremely important to know the nature of the relationship between the two organizational components in order to ensure their positive effect on achieving the company's goals.

Organizational culture and compensation system are actually two efficient mechanisms for initiating, directing and controlling human behaviors in organizations [15]. The only difference is in the nature of the two mechanisms.

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Organizational culture directs the organization members' behavior from within or intrinsically, through their internalized assumptions, values, norms, and attitudes. The members of organization behave according to their values and norms that are highly determined by the organizational culture. On the other hand, compensation system directs the organization members' behavior from the outside or extrinsically, by rewarding one and not rewarding or punishing other behaviors. In this case, people repeat the rewarded ones, and avoid all other behaviors. If the organizational culture and compensation system guide the behavior of employees in the same direction, towards the same pattern of behavior, then their impact will be synergetic, so the total strength of directing the organization members' behavior will be greater than the sum of the strengths of their individual impacts. On the other hand, if the organizational culture would direct the organization members' behavior in one direction, and compensation system in another one, these impacts would annul one another and their strength would be significantly smaller. Organizational culture would then, by its values and norms, neutralize the portion of compensation system's impact on organization members' behavior and vice versa. In this case, neither the organizational culture nor the compensation system would have a significant impact on everyday decisions, actions and interactions of the organization members, so their importance would be smaller, and their value in use, as a management tool, would be significantly reduced. Therefore, it is extremely important that the organization's management provide consistency between compensation system and cultural assumptions, values, norms, and attitudes. This may be done by harmonizing the compensation system in the company with the characteristics of its organizational culture type.

In this paper, the relationship between organizational culture and compensation system will be presented and analyzed in detail. First, compensation system and organizational culture will be shortly presented. Then, in order to present the mechanism of the bidirectional impact, i.e. how the compensation system impacts organizational culture and the way in which organizational culture impacts the shaping of compensation system, will be analyzed. Subsequently, two-way relationship between the organizational culture and compensation system will be operationalized, specifically by identifying the features of compensation system which correspond to different types of organizational cultures.

Compensation system

The employees' compensation (rewarding) system consists of different types of material and nonmaterial rewards that the company uses to compensate the employees for their work and contribution to achieving the company goals [4]. The compensation system is one of the most powerful management tools for motivating, shaping, and correcting the employees' behavior. Basically, people repeat the rewarded behaviors and avoid the ones for which they are being punished. This simple logic enables managers to, by adequately choosing the rewards as well as the behaviors and performances that will be rewarded, precisely shape the employees' activities, so they would be in accordance with the organization's goals. Managers should define what behaviors the employees should demonstrate in their everyday work and what results they should achieve, so that those behaviors and results would in turn be rewarded [8]. Employees will, wishing to obtain rewards, direct their actions towards the rewarded behaviors and results, while they will disregard all other behaviors and results. A lucid thought of an expert in the field of human resources management shows that the things are not quite so simple. He asserts that: "Companies do not get from their employees what they want, but what they are paying for." This judgment not only clearly shows the importance of harmonization of the compensation system with the strategic goals of the organization, but it also shows how difficult it is to achieve that. Namely, it often happens that a company publicly proclaims one form of behavior as desirable and rewards another one in practice [18]. For example, a company proclaims that the basis of its strategy is innovativeness and that this is what it actually requires from its employees while, on the other hand, the review of the company's compensation system actually reveals that the employees are rewarded for everything but innovativeness: for discipline, regular

coming to work, work productivity, materials saving, etc. Why does this happen? In most cases, this happens because managers have a tendency to reward what they can measure, and it is often not what is important and what they want from employees.

Compensation systems, in the broadest sense, include both material and nonmaterial rewards. Material rewards comprise direct and indirect earnings, while nonmaterial rewards consist of various acknowledgements, status, opportunities, and contexts that the company offers to its employees [12]. With respect to material rewards, compensation systems consist of two key components: direct and indirect earnings [4], [25]. Direct earnings comprise all direct payments by the organization to the employees for their contribution to achieving of the organization's goals. Direct earnings include basic salary and incentive payments. Basic salary is fixed and it is paid on the basis of the work performed by the employee at his/her work place. It depends on the complexity and quality of the tasks the employee performs at his/her work place, and not on the results he/she accomplishes. This is why all the employees at the same job position should have the same basic salary. Also, the basic salary of an employee stays the same unless he/she changes the job position and unless the company decides to increase the basic salaries of all employees due to increase of the costs of living. The second part, or form, of direct earnings is incentive payments. It is variable in nature, meaning that it can be changed on monthly, quarterly, or yearly basis. It is individualized, which means that it is not the same for all the employees working at the same job position. Incentive payments differ in the basis for payment. Thus, there are performance based pay, competence or knowledge based pay, as well as incentive payments paid on the basis of the employees' loyalty, i.e. the number of years of working at the company [8]. There are several forms of incentive payments: bonuses, raises, special rewards, stock options, etc. As a rule, bonuses are single instance rewards, mainly performance based. Raises are rewards which increase the basic salary and, once awarded, they are in most cases permanent. They are most often awarded based on loyalty, but may also be awarded on the basis of enhanced competence, knowledge, and experience of an employee, and even on the basis of the employee's performance as well. Performance based pay (bonuses) can be individual and team, depending on whose performances make the basis for its payment. A special form of group bonus is the bonus awarded to all employees at the end of the year (the so-called thirteenth salary). The portion of incentive payments in total employee's salary can extremely vary and be in the range from 0% to a 100%. It varies from company to company, but it can also differ within a company depending on the type of work performed. Thus, salespersons and managers will always have the highest portion of incentive payments in employee's total earnings in a company. Basically, the greater the degree of the employees' discretion and their impact on the results, the greater the need for the portion of their salary to be incentive, and not fixed, in character.

Indirect earnings or benefits are all those appropriations given by the organization to the employees indirectly, in various forms, as a reward for their employment in the organization [8]. These appropriations are also material in nature and have a financial form, but they are not expressed in terms of money and are given to the employees in other forms. There are several basic groups of benefits. Some benefits might take the form of indirect earnings that provide a certain degree of security to the employees, such as health insurance, retirement and disability income insurance, social insurance, life insurance, paid leave, vacation, etc. Yet, other kinds of benefits include different forms of appropriations to employees related to their work performance, and often also to their job position in the organization: use of company car, lap-top computer, cell phone, free fitness, various clubs' membership, etc. Those benefits are often also the reflection of an employee's status in the organization (status symbols) and are directly dependant on the employee's position on hierarchical ladder.

Performance appraisal system is a particular organizational system so closely connected with compensation system that many authors believe that it is actually a part of the compensation system [14]. It consists of regular, planned and formalized monitoring, measuring and evaluation of individual and group performance of the employees, and giving information regarding the appraisal to the

employees, as well as to other users of the said information in the company [12]. Employees' performance appraisal is used as a tool for motivating, directing and development of employees. Since in most compensation systems in modern companies at least one portion of the employees' earnings depends on their performance, therefore it is necessary to also monitor and measure the said performance in some way. Performance appraisal can, on the one hand, be undeveloped, informal and subjective, and, on the other, it can be developed, formalized and objective [17]. In the first option, leaders (in smaller enterprises) or managers (in larger companies) monitor and evaluate the performance of their subordinates in everyday work. They do this informally, spontaneously, and without a specific procedure and explicitly defined and well-known appraisal criteria. In the context where a developed, formalized and planned performance appraisal system does exist, there are a clear and explicit performance appraisal in the company, evaluators who have a formal obligation to conduct the appraisal are appointed and clearly defined appraisal criteria. Performance appraisal is conducted according to several criteria, usually from three to seven, and the criteria themselves are explicitly formulated and the employees are familiar with them. In order to build a formalized performance appraisal system in a company, the following should be defined: appraisal participants, appraisal dynamics, appraisal methods, criteria and range, appraisal procedure, and the use of the appraisal results [21]. Employees' performance appraisal may be conducted by the organization's leader, higher-level managers, colleagues, subordinates, the employees who evaluate themselves, and external parties (e.g. mystery shoppers) [4].

Performance appraisal criteria in companies can be based on measuring the following: employee's personal traits, his/her behavior, or the results he/she achieves [21]. Managers value the most the performance appraisal based on direct measuring of the results that are expected from an employee at his/her job position. For example, for a production worker, this would be the number of manufactured items, while for a field salesperson it would be the volume of sales. But, sometimes it is not possible and/or it is not enough to measure just the accomplished result. How can the result of work of an engineer in a company's R&D sector be measured? Or, is it enough to measure just the volume of sales achieved on the market by a salesperson and ignore his/her long-term relationship with the customers? In this case, it is necessary to also measure employee's personal traits, such as extraversion or orderliness, as well as his/her behavior at work such as, for example, initiative and discipline. The traits or behaviors that most directly lead towards the desired result or which the desired result depends on, are selected.

Depending on how performance appraisal is conducted, the criteria are divided into quantitative and qualitative. Quantitative criteria are those based on quantification of the desired result, traits, or behavior. They are in their nature most often objective, because performance appraisal is conducted based on objectively identified quantity of the result. Qualitative and subjective criteria are on the opposite end. These are the criteria where it is not possible to perform quantification, but performance appraisal is conducted based on subjective appraisal of the evaluator. Results are most often measured through quantitative criteria, while traits and behavior are usually appraised through qualitative criteria. Finally, performance appraisal criteria can in their nature be internal or external. Internal criteria are the ones that measure traits, behaviors or results important for efficient and harmonious functioning of a company. These are, for example, cost savings, discipline, and interpersonal relations of the employees. External criteria are the ones that measure traits, behaviors and results important for positioning of the company in its environment. These are sales, market share, new products, customer satisfaction, etc. There are several dimensions of the employees' performance that are usually monitored and evaluated: 1) performance quantity; 2) performance quality; 3) performance time dynamics (meeting the deadlines); 4) performance efficiency (productivity, effectiveness, savings); 5) autonomy, initiative, innovativeness, and readiness to accept changes; 6) interpersonal influence and influence on the climate in organization; 7) work-technological discipline [17]. The time horizon of performance appraisal can be relatively short (monthly), of medium length (quarterly or semi-annual) and relatively long (annual appraisal).

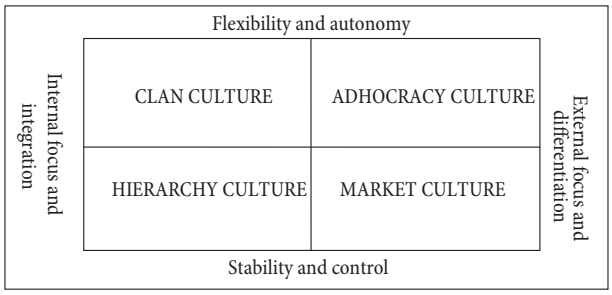
Organizational culture

Organizational culture is "a system of assumptions, values, norms, and attitudes, manifested through symbols which the members of an organization have developed and adopted through mutual experience and which help them determine the meaning of the world around them and the way they behave in it" [16, p. 72]. The importance of organizational culture stems from the fact that it is a kind of a reservoir of collective meanings in an organization which determine every collective and individual action and decision [22], [26]. Organizational culture is the most powerful means for understanding human behavior in organizations [1]. The comprehensiveness of organizational culture impact on people's behavior in organizations emerges from every single action, reaction or decision of each member of organization being, in some degree, conditioned by the meanings imposed on people in the organization by the organizational culture. This is why every decision and behavior of individuals and groups within an organization is a manifestation of organizational culture.

A summary of numerous theoretical and empirical works, the aim of which was to identify the organizational culture content, shows that this content may be structured in two large and heterogeneous groups of components: cognitive and symbolic [24], [2]. The main difference between them is in their nature. Cognitive elements of organizational culture include the organization members' cognitive structures with their elements: assumptions, values, attitudes, and norms. Cognitive structures of the organization members represent a source of mutual meanings that the organization members assign to the world surrounding them, and they are the basis of every organizational culture [24]. Symbols represent the visible part of organizational culture that can be heard, seen or felt, and which manifests, represents and communicates the meanings produced by cognitive elements of the culture [23].

A concrete form of the impact of organizational culture on an organization and management is reflected in the fact that components of an organization and management differ in different types of organizational culture. In other words, different types of culture in organizations imply different models of compensation systems. Therefore, in order to analyze the impact of organizational culture on compensation system, we must describe different types of organizational cultures. In the literature, there are numerous classifications of organizational culture types. Competing Values Framework, the work by *Cameron* and *Quinn* and their associates [7], is probably the best known and most used one. According to this classification, organizational cultures are differentiated on the basis of two fundamental criteria: 1. Flexibility, changes, dynamism *versus* stability, order, predictability; 2. Internal orientation, integration, harmony *versus* external orientation, differentiation, competition. Based on these two dimensions of organizational cultures, a four-field matrix (see Figure 1) may be constructed, in which each of the four fields contains one of the four basic types of cultures: clan culture, hierarchy culture, market culture, and adhocracy culture.

Figure 1: Competing values framework



Source: [7]

The characteristics of individual types of organizational cultures in the Competing Values Framework [7] are as follows:

Clan culture. In this type of organizational culture, the metaphor for organization is an extended family or clan. Organization is a very friendly place for its members and it resembles an extended family. The leader of the organization is considered the head of the family, but also a mentor, who most often practices the authoritative leadership style. People are bound by tradition, dedication and loyalty. The relationship between the organization and an individual is not based on a mere transaction of money for work. Instead, the employee owes loyalty to his/her organization, and the organization in return offers certainty in the form of a long-term employment. The identification of the employees with the organization is strong and the

feeling that their organization is "something special" is highly developed, hence it is no wonder that the employees are proud of their organization. A long-term commitment to human resources development is emphasized, and a great importance is ascribed to cohesion and work ethics. Success is defined based on customer satisfaction and the very employees' satisfaction. Organization is oriented towards support and highly values teamwork, consensus and participation, care for people, and individual growth [10]. The importance of commitment is emphasized, and people are incited to express ideas. In general, the degree of formalization in the organization is low, hence a large number of business processes happen spontaneously and informally. The distribution of power in the organization is hierarchical, with a protruding figure of the leader who concentrates almost all the power in his/her own hands and shares it only with few of his/her closest associates. Managers treat the employees paternalistically, often emotionally, and they base this relationship on frequent communication. Culture does not incite entrepreneurial behavior of the employees.

Hierarchy culture. Organization with this type of culture is highly rational, formalized and structured place. Formal procedures and rules guide everyday work of people. The most important thing is to achieve efficient, harmonious and smooth functioning of organization; hence it is not surprising that the organization is treated like a machine. People are bound by following the same rules and procedures. The emphasis is on long-term efficiency, low costs and harmonious functioning. Stability, predictability and certainty of employment are highly valued. Internal and control orientation in this type of culture form orientation towards rules in which rationality, procedures, hierarchy, authority, and labor division are emphasized [10]. The attitude of the employees towards the company is transactional and rational, and not emotional. People give to the organization only what they are paid for. The degree of formalization is very high, and there are a large number of procedures, rules, directions, and the like. Also, in this type of culture, the organization is depersonalized and based on positions, roles and structures, not on people. This type of culture enables the employees to harmonize their private life and career. The distribution of power in the organization is uneven and hierarchical, because it is concentrated at the organization's top. However, unlike clan culture, the organization's management is not completely free in their action, because they also, like everyone else in the organization, must follow rules and procedures.

Adhocracy culture. This culture makes an organization a dynamic, creative and entrepreneurial place. People are incited and they are expected to take actions and assume risks. Leaders are innovators and the ones who take risks. People in the organization are connected by the desire for experimenting and trying out new things. In the long-run, the emphasis is on growth through obtaining new resources. Success in the organization is measured by innovations in technology, products or services. Individual initiative and autonomy are encouraged. External orientation and flexibility in this type of culture implicate the orientation towards innovations and include changes, innovations, information seeking, anticipation, openness, and experimenting [10]. The distribution of power in this type of culture is even and egalitarian, since the employees, who are the source of innovations and changes, should have power in order to create and implement them. Accordingly, the leaders in these types of cultures practice a democratic leadership style.

Market culture. With market culture, organization is oriented towards result – the main concern is to get the job done. People are expected to be competitive, and targeted and result oriented behavior is also expected. Leaders encourage hard work, achievement of the results and competitiveness among employees. People are bound by the desire for success. In the long run, the emphasis is on winning the market and achieving measurable results in it. Success is measured by market share and sales, as well as by financial indicators of business operations. Strong competition, both on the market and within the organization, is highly valued. The combination of external focus and control in this type of culture results in orientation of managers and employees towards the following goals: rationality, performance, accomplishments, responsibility, and performance based pay [10]. Market culture is based on a strict, short-term contractual relationship between an individual and the organization. Within this contractual

relationship (which is both formal and psychological), the employee only exchanges his/her immediate output for immediate rewards (most often money). The employee is responsible for achieving a certain level of performance, and the organization is responsible for rewarding this performance level. Performance enhancement by an individual also brings an increase in his/her reward. Instead of feeling of unity, market culture promotes independence, individuality, competition, and taking care of personal interests. The relationship between managers and employees is a strictly "business" one, formal and rational, based on contractual relationships between the organization and an individual.

Mutual influence of organizational culture and compensation system

In this part of the text, it will be shown how organizational culture impacts the shaping of compensation system in a company, but also vice versa: how the compensation system impacts creating and changing the values and norms of organizational culture. First, the mechanism of organizational culture's impact on the compensation system will be described, and afterwards the compensation system's impacts on the organizational culture will be illustrated.

Organizational culture mostly influences the compensation system in three ways: 1) by modeling the desired behaviors that are rewarded; 2) by determining the dimensions and the ways of measurement of the employees' performance; 3) by impacting the type and the manner of distribution of the rewards [15]. Organizational culture influences the compensation system by determining, through its assumptions and values, *what* will be rewarded and *how*. Culture actually defines the model of desirable behavior which is rewarded, and thus sets the fundaments of the compensation system. According to some authors, organizational culture plays this role by influencing the company strategy [5], [20]. Namely, with its values and assumptions, culture defines the framework of corporate strategy, which in turn determines a necessary behavior of the employees in order to implement the strategy. For example, if a bureaucratic culture with values of efficiency, rationality, stability, introvert perspective, formalization, standardization, and specialization is developed in a company, the company's strategy will probably be led by costs, and the desired behavior, which will be rewarded in the compensation system, will probably imply productivity, effectiveness, precision, meeting the deadlines, persistence, savings, etc. But if an organic culture, emphasizing the value of innovations, initiative, changes, flexibility, and extrovert perspective, is developed in a company, the company strategy will be differentiation with respect to competition, and the desired behavior, which will be rewarded in the compensation system, will imply initiative, innovations, autonomy, achievement, risk taking, readiness to change, etc.

Organizational culture defines not only the target behavior that will be rewarded in the compensation system, but also the way in which this target behavior is identified, monitored and measured. Organizational culture impacts the dimensions and results of the target behavior to be monitored, measured and rewarded. This means that organizational culture impacts not only the compensation system, but also the performance appraisal system which is very closely connected to the compensation system [3]. Some organizational cultures, through their values and norms, favor certain performance dimensions that are more often used and receive greater importance in these cultures. Thus, for example, if organizational culture implies the strategy of leadership with respect to costs and the desired behavior which implies efficiency, productivity and stability, then it is very likely that the criteria of performance quantity, performance efficiency, performance time dynamics, and work-technological disciplines will have a dominating influence in appraisal of individual performance of employees. If organizational culture implies the strategy of differentiation and the desired behavior which implies effectiveness, initiative, flexibility, and innovations, then it is very likely that the criteria of performance quality, initiative and readiness to change, and interpersonal influence will dominate the performance appraisal system.

Through its assumptions and values, organizational culture impacts the selection of the type of rewards in the company: what is the relative importance of nonmaterial

with respect to material rewards; what is the relative importance of indirect with respect to direct salary; what is the relative importance of performance based pay, job position based pay and competence, knowledge and experience based pay in the overall compensation system. Organizational culture also impacts the relative relationship between fixed and variable (incentive) rewards, as well as the type of these variable rewards and their share in the overall compensation system. For example, in the cultures which emphasize the values of stability and avoidance of uncertainty, changes, and risks, the share of variable rewards in overall compensations will be significantly smaller than in cultures which hold the values of flexibility and tolerance to changes, uncertainty, and risk. The cultures of flexibility and changes will practice a wider use of more risky and stimulating rewards carrying a greater risk, such as stock options, phantom stock, and the like.

Compensation system influences organizational culture in two ways: as a symbol and as a behavior determinant. Compensation system (or rewarding system) is a very important symbol of organizational culture. It manifests and reflects the assumptions, values and norms contained in the organizational culture. Symbols have several roles in an organization and by each of these roles the compensation system as a symbol influences organizational culture [23]. The primary function of symbols is to represent the organizational culture's content. By interpreting the symbols, the content of organizational culture can be understood. Thus, the compensation system also shows to employees, more or less explicitly, what are the values and norms of the organizational culture. The second function of symbols is to evoke and initiate internalized assumptions, values and norms, and thus immediately direct the behavior of individuals. Through the meaning they manifest, the symbols suggest how we should react and behave in a given situation. This means that the compensation system, as a cultural symbol, will direct the employees' behavior in the direction harmonized and consistent with cultural assumptions, values, and norms. The third important function of the system of symbols in an organization is socialization. In the process of socialization or "learning the culture", symbols convey meanings to new members of the culture. In the process of socialization, the new members of the culture must accept the assumptions, values and norms that make its content. In this process, symbols play an important role, because they are the only channel through which new members of the culture can comprehend cultural assumptions, values, and norms that are to be adopted. One of the sources of learning cultural assumptions, values and norms is also the compensation system. A new employee in a company very quickly and clearly learns to "read" from the compensation system what is valued in the company and what not, what is important and what not, which behavior is acceptable and which not, and which behavior is rewarded and which not. Finally, the role of symbols in an organization is also the change of culture. Manipulation of symbols is a completely legitimate way of changing organizational culture's values and norms. If the organization's leader wishes to change the culture, then he/she, consciously or unconsciously, immediately reaches for changing the symbols. The old symbols, carrying the meanings to be abandoned, are then cancelled and new ones, communicating new meanings to be accepted, are introduced. Thus, if we want to change the culture of a company, an entire array of symbols needs to be changed, and among them is, certainly, the compensation system.

Besides by means of symbols, the compensation system also influences the organizational culture by means of shaping and directing the behavior of the members of organization [12]. Through the rewards it awards or denies for certain behavior and results (or lack of them), the compensation system directly impacts the organization members' behavior. Employees very quickly learn to repeat the behavior bringing the rewards according to the compensation system in effect and to avoid the behavior that brings punishment or does not bring rewards. The well-established behavior pattern of the members of the organization, emerging from the functioning of the compensation system, can be consistent or inconsistent with the cultural values of the organization and the behavior that these values imply. If the employees' behavior induced by the compensation system is consistent with the cultural values, then the compensation system will, not only as a cultural symbol, but also as an organizational system

in itself, impact the strengthening and stabilizing of the organizational culture. Then, it will, through symbolic but real directing of the employees' behavior by means of rewards or punishments, strengthen the cultural values. But, if the behavior towards which the compensation system directs the employees is inconsistent with cultural values, then the compensation system will, through this behavior, weaken, degrade and, eventually, change the organizational culture. Inconsistency between compensation system and cultural values can emerge according to some plan, as in the case when the leader uses the compensation system as one of the mechanisms for changing the culture, but it can also emerge spontaneously, when for some reason the compensation system is changed in such a way that it starts to direct the employees' behavior in the direction opposite than the one in which cultural values direct them. Then, the compensation system will direct the employees to behave in the way they do not find legitimate, because it is inconsistent with the existing cultural values and norms. In this situation, the compensation system forces the employees to behave and work in the way they find wrong, harmful, immoral, or unacceptable. In this manner, the employees enter the state of cognitive dissonance [11]. It is the state in which people's behavior and actions diverge from the values, norms, and attitudes they believe in. This is the reason why the state of cognitive dissonance is very unpleasant and frustrating, and therefore people strive to escape it as soon as possible. They can do this in two ways. The first and the easier one is to return to the behavior consistent with their values. In this case, the culture will be strengthened and the compensation system will have no real impact on the employees, so it will probably be changed. But, if the compensation system survives and if it continues, by means of rewards and punishments, to direct the behavior of the employees in the direction opposite to the one in which the culture of organization is directing them, then people will resort to a different way of escaping the cognitive dissonance. They will harmonize their behavior with their values by changing them. This will be the beginning of the process of organizational culture's change, because old cultural values and norms will be abandoned, and the new ones will appear instead, harmonized with the behavior implied by the compensation system. This is, actually, how change of organizational culture happens with the help of the compensation system.

Compensation system features across organizational culture types

Based on the described mechanism of mutual influence of organizational culture and compensation system, it can be concluded that their synchronization provides harmony, balance, and consistency in company management, and thereby better performance as well. Concrete empiric evidence regarding mutual synchronization of organizational culture and compensation system was provided by *Kerr* and *Slocum* [19] in their research which included 14 companies in the USA. They differentiated two compensation systems in the observed companies: hierarchical system and performance based system. The two compensation systems in the examined companies were strongly correlated with two types of organizational culture: clan culture and market culture. We will operationalize the relationships between organizational culture and compensation system, building exactly on the arguments provided by *Kerr* and *Slocum*. The aim is to provide the company management with a tool that would enable them to achieve harmony between organizational culture and compensation system, and thereby provide their synergetic positive effect on the company performance. Operationalization of the relationship between organizational culture and compensation system is possible through determining the compensation system's features that match specific types of organizational cultures. When this is established, the company management must do the following: 1) Identify the organizational culture type in their company; 2) Identify the features of the compensation system in their company; 3) Identify the gap or differences between the organizational culture and the compensation system; 4) Take actions to change and adapt the compensation system to comply with the organizational culture, or vice versa. In the remaining part of the text, basic assumptions will be established regarding the compensation system's features that match specific types of organizational cultures. Thereby, we will start from *Cameron* and *Quinn's*

[7] classification of organizational culture types, already described in the previous text.

In different organizational cultures, compensation systems have different purpose. Namely, compensation systems, just like other management tools, should help the management solve the main problems that the organization faces. In different cultures, the perception of what are the main organizational problems is very different, and this changes the purpose of the compensation system. Thus, in clan culture the compensation system should help integration into the collective and creation of family-like environment. The compensation system should enable establishing of close relationships between employees and creating the feeling of belonging and community. In market culture, the main problem is how to achieve maximum performance, so the purpose of the compensation system is to incite the employees to put the effort into achieving the results. The aim of compensation system is to stimulate the employees to achieve the best possible performance and also to differentiate, in this process, the employees according to their abilities and desire to achieve performance. In adhocracy culture, the main problem of organization is to achieve innovativeness, so the purpose of the compensation system is to build a context in which acceptance of changes, creativity, and innovativeness will be stimulated. Finally, in hierarchy culture the main problem of organization is how to control the behavior of the employees, so the compensation system serves precisely this particular purpose. It should provide that the individual and group actions, behaviors and decisions stay within the prescribed procedures, structures and systems.

The basis or criterion of awarding rewards in a compensation system emerges from its purpose. The compensation system in clan culture is built on loyalty which assumes the highest position in the pedestal of values. Therefore, loyalty and dedication to the organization as well as contribution to harmony and integration of the collective are required from the employees and rewarded. In market culture, performance on the market takes the central position, therefore the compensation system is based precisely on it. This is why the rewarding criterion is the result (both individual and organizational) accomplished on the market, and it is most often expressed in financial form. The compensation system in adhocracy culture is based on creativity, innovativeness and changes; hence all this is, along with abilities and readiness of an employee to learn and grow, the basic criterion for rewarding in this type of culture. In hierarchy culture, the starting point of the compensation system is tasks and structure, which should enable control and predictability of the employees' behavior. The rewarding criterion in this culture is efficiency in performing the tasks in the structure in the prescribed way, which is most often measured through productivity, savings, and discipline.

The role of the organization's leader in creating and exploiting the compensation system is also different across cultures in organizations. Through their values and norms, different cultures shape different roles of leaders in organizations, and therefore their roles in the implementation of compensation systems are different. In clan culture, the leader is, generally speaking, the "*pater familias*"; hence it is also his role in the realization of the compensation system. The leader has a great power in the organization and, in the compensation system, he/she gives rewards or punishments based on his/her own impression about the contribution of individuals and groups in the organization rather than based on systematic measurements of their performance. In the rewarding process, expression of emotions is often exhibited both by the leader and the employees. Rewards are often more important as the symbol of closeness between the leader and the employee, than as material gain. In market culture, the role of the leader is to incite individual and group efforts toward accomplishing results. The leader acts as a distant evaluator, someone who appraises, rewards and punishes performance, and also differentiates those who are and who are not able to deliver results. The leader does not act emotionally, but technically in the process. In adhocracy culture, the role of the leader is to generate, stimulate, direct, and channel the creative energy of the employees in order for them to create innovations and initiate changes. This is why the leader acts as the employees' mentor and also very often sets an example for others, serving as a sort of a role model. It is clear that the rewarding process is highly emotional, because the leader must also use emotions in order to incite initiative and creativity, development and

learning in the employees. In hierarchy culture, the leader has the role of administrating the organization. In this culture, organization is viewed as a machine, so the leader must through rewards and punishments, among other things, also provide its harmonious functioning. Unlike clan culture, the leader must, in the rewarding process, act within the limits of strict rules of the compensation system. The process is highly formalized, and therefore the very role of the leader does not imply emotions.

The portion of incentive payments in total earnings is important feature of compensation system. Basically, this portion can range from 0% to a 100%, but it most often ranges between 20% and 40%. The portion of incentive payments differs according to categories of the employees. As a rule, it is the largest for managers and the employees who have high autonomy in their work, such as sales representatives. The portion of incentive payments depends in part on cultural values, that is, on the organizational culture type. Generally speaking, incentive payments will be more important in those cultures that stimulate employees' autonomy, as well as changes, innovations and risk, than in cultures that are focused on stability and in which the employees have no autonomy. Adhocracy culture imposes innovation on the managers and employees as a purpose of organization's existence. Therefore, this culture stimulates the employees to make changes, take risks, create innovations, and tolerate independence. Adhocracy culture also gives the highest degree of autonomy and discretion in behavior to the employee. Therefore, it is only logical that, out of all the types of cultures, the portion of incentive payments in total earnings will be proportionally largest in adhocracy culture. In contrast, the culture that emphasizes values of stability, controllability, hierarchy, and efficiency will certainly imply a small portion of incentive payments in total earnings. This is why it can be expected that this portion will be smallest in hierarchy culture with respect to all other types of organizational culture. This expectation is additionally supported by the fact that the employees in this type of culture usually have the lowest autonomy, and the employees' behavior is completely regulated by structures and systems. Market culture stimulates employees and managers to achieve results on the market, which often implies taking autonomous actions, accepting risks and accepting, or even creating, changes. However, since in this culture innovations and changes are not a goal in themselves, but a means to achieve financial results, and since the degree of employees' autonomy is somewhat lower, therefore the inclination to changes and risk in this culture is slightly lower than the one existing in adhocracy culture. Consequently, the portion of incentive payments in total earnings will be high, but it will be somewhat lower than it is the case with adhocracy culture. Clan culture implies the central role of the organization's leader, who also undertakes all the changes, takes risks and creates innovations. The rest of the employees are expected to just perform entrepreneurial actions that the leader initiates. Therefore, it is not necessary that the employees take autonomous activities for which they would be rewarded by incentive payments. Unlike hierarchy culture in which employees' behavior is regulated by systems and structures, in clan culture this regulatory mechanism is slightly "looser" because the leader cannot control the behavior of all the employees to such an extent. This is why it sometimes suits the leader that the employees show initiative and autonomy. For all these reasons, in clan culture the portion of incentive payments in total earnings is very low, but not as low as is the case with hierarchy culture.

Cultural values and norms influence not only earnings, but also the performance appraisal system which is, as it was already indicated, a part of the compensation system in broader sense. Several characteristics of employees' performance appraisal system depend on cultural values and norms, that is, they depend on the type of organizational culture [9], [13].

The degree of development and formalization of performance appraisal system depends on the type of organizational culture. In clan culture, organization is observed as an extended family or clan in which relationships are not formalized. Therefore, the formalization of structure, and even of all the systems in the organization, is low. It is the same case with performance appraisal system. Since in this type of culture everything is informal, the way in which evaluators appraise the performance will also be informal. Performance appraisal of all employees is done,

as already indicated, by the leader of the organization based on his/her personal "impression". There are no explicitly and in advance formulated criteria for conducting the appraisal. The criteria are mostly in the mind of the leader and he/she does not usually publicly announce them. The process of performance appraisal is not systematic, since marks are given on case-by-case basis, when the leader observes a very bad or a very good result of the employees. The leader often does not give feedback on performance appraisal to the employee, but keeps this information to himself/herself and, based on it, makes the decisions about rewards or punishments as well as the employee's promotion. Hierarchy culture is at the opposite extreme. This culture, in which organization is viewed as a machine, implies high formalization of the processes, as well as development of structure and systems in the organization. This is the reason why in hierarchy culture performance appraisal system will be highly developed and formalized. Performance appraisal criteria are numerous, predefined and announced. The evaluators are predefined, as well as how they conduct the appraisal. The appraisal procedure is formalized, and tools (software, documents) that help the process are developed. Appraisal is systematic, conducted on a regular basis and according to a predefined procedure. Feedback about performance appraisal is given to both the employees and the human resources department. Performance appraisal is used for both rewarding of the employees and their promotion and planning of their training. In market and adhocracy cultures, it can be expected that performance appraisal system is less developed and formalized than in hierarchy culture, and more than in clan culture. It can also be expected that performance appraisal system in market culture is slightly more developed and formalized than in adhocracy culture. The reason for this is that market culture is focused on achieving results on the market. In order to determine this result, it is necessary to measure the performance of entire organization, but also of the groups and individuals in it. In addition, in this culture, quantitative results expressed financially are appreciated the most and they are precisely enclosed in the performance appraisal system. In adhocracy culture, changes, innovations and creativity are the most important, and they are much harder to "capture" by the performance appraisal system than financial results. Therefore, performance appraisal system is developed in adhocracy culture, but it cannot be as important, developed and formalized as it is in market culture. A good deal of criteria important for performance appraisal in this type of culture is qualitative in character, and whether the criteria are met or not can be verified only by means of subjective methods.

The nature of performance appraisal criteria is different in different organizational cultures. It depends on what is measured by the performance appraisal, as well as on how the appraisal is conducted. The answer to the question what is measured is given in the basis for the criteria. According to the described performance appraisal criteria, four types of organizational culture can be differentiated. In clan culture, qualitative, subjective and internally oriented criteria are favored. Since the focus in this culture is on internal harmony, harmonious interpersonal relations and people development, and since the leader in this culture has a role of the "father of the family", therefore he/she will be the one who conducts performance appraisal and will do so based on subjective impression about the contribution of individuals and groups to the development and maintaining of harmonious relationships in the organization and to the development of the people within it. While appraising the employees, the leader is oriented towards their traits and behaviors, rather than towards their results. In hierarchy culture organization is viewed as a machine; hence performance of individuals and groups is measured by their contribution to the functioning of the "machine" through performing of their tasks in accordance to the defined structures, systems and procedures. This contribution is quantified and objectively measured whenever it is possible. This is why the employees' results, and not their traits and behaviors are the focus of performance appraisal. In this matter, the orientation in performance appraisal is internal and directed towards enabling harmonious functioning of the organization. Market culture favors performance appraisal criteria with external orientation. Since organization is in this culture completely focused on the result achieved on the market, it is therefore clear that the criteria for employees' appraisal will be based

on their ability to contribute to achieving results on the market, such as sales revenue, market share, margin and stock turnover. The result of individuals, groups, as well as the entire organization is, whenever possible, measured objectively, quantitatively and, preferably, in financial form. Just like in hierarchy culture, in this culture as well the employees' results and not their traits and behaviors are the basis for performance appraisal system. Finally, performance appraisal criteria that suit adhocracy culture will be qualitative and subjective, and externally oriented. Adhocracy culture is focused on innovations, and the employees are appraised according to their ability to, through their creativeness, contribute to innovations. In most cases, it is not possible to quantify and objectively measure this contribution of the employees, and therefore qualitative and subjective performance appraisal criteria are used. Since the success of the organization is measured by its leading position on the market, the performance appraisal criteria will have external orientation. For similar reasons, employees' appraisal is based more on their traits and behaviors, than on their results.

Aside from the nature of criteria, organizational culture also determines the performance dimensions that will be measured, monitored and evaluated. According to the described values and norms of the four types of organizational cultures, we can assume that certain performance dimension will be favored in each of the culture types. Thus, the most important performance dimension to be appraised in clan culture will be interpersonal influence on the collective work environment. Market culture will, with its values and norms, favor performance quantity, while hierarchy culture will imply the use of performance efficiency as the dimension of the measured result. Finally, in adhocracy culture it is only natural that autonomy, initiative, innovativeness, development and learning, but also performance quality emerge as the dominant performance dimension.

It can be assumed for a reason that organizational culture impacts both the performance appraisal time horizon and employees' rewarding. The time horizon refers to time interval in which performance is appraised and rewards are awarded to the employees based on their performance. It can be short, ranging from one to three months (quarter), medium-length, ranging from three to six months, and long, ranging from six months to one year and even longer, up to several years. Organizational culture with its assumptions, values and norms significantly impacts the time horizon of the entire business operations, and therefore it also impacts the time horizon of performance appraisal and rewarding. Based on the knowledge about the values and norms contained in specific types of organizational cultures, it can be assumed that market culture will have the shortest performance appraisal and rewarding time horizon. It is followed by hierarchy culture and clan culture, while adhocracy culture will have the longest time horizon. Market culture is oriented towards achieving results on the market, in particular quantitative results, expressed financially and objectively measurable. Since these results can be relatively easily determined on the market in a month time or in even shorter period, hence the performance appraisal time horizon of every person in the company will be very short. Not all employees have performance that is directly measured on the market, but the principle of short-term determining of the achieved results is easily transferred from the level of the entire organization to organizational units and all employees. Hierarchy culture treats organization as a tool, a machine to serve the interests of the stakeholders. This machine must be efficient in order to justify its existence, and this effectiveness is evaluated through achieving the specified performance in a short period of time. Therefore, the time period of evaluating the successfulness of the entire organization, and also its units and even employees, is also short. In contrast, in adhocracy culture, achieving of innovations and changes is most important. This, however, usually requires a lot of time. This is why in evaluating the results of the entire organization, and even of its employees, a relatively long time horizon is used, usually one year or longer. Clan culture is focused on a long-term development and learning of the employees, as well as on integration of the collective. This in itself implies a long deadline for evaluating the successfulness of the organization as a whole, and thus also the results of its units and employees.

Organizational culture type also impacts the importance and the degree of development of the benefits

system. Benefits have a twofold role in an organization. They are, above all, the system of direct appropriations of the company to its employees, who, through benefits, acquire additional material gain over their direct earnings. On the other hand, benefits are important status symbols. Benefits systems are most often structured in such a way that people at higher positions have benefits that are greater and of finer quality than the ones of those at lower positions. Thus, enjoying certain benefits, such as the use of company car, tells more about the status that an individual has in the organization. For this particular reason, the developed and hierarchically structured benefits systems are compatible with organizational cultures which contain values of uneven distribution of power in an organization. Such are clan and hierarchy organizational cultures. In these cultures, it is important that the power of individuals and groups are differentiated and clearly displayed, so benefits are used as an instrument for achieving this goal. The fact that power is differentiated on different bases, based on hierarchical level in hierarchy culture and based on closeness to the leader in clan culture, is in this case of little importance. In clan culture there is one additional reason for importance of benefits system. This culture is based on the idea of the development of the collective and care for the employees. Benefits are precisely the way for a company to show concern about its employees' well-being. On the other hand, market and adhocracy organizational cultures contain the values of even distribution of power in an organization. Since organization strives to level, and not to differentiate the power, thus benefits become less important as status symbols and thereby also less developed. They do not fade completely because they still have their basic function of indirect earnings, but they are certainly less differentiated, less developed and less important in the organization.

A summary of the characteristics of compensation systems according to organizational culture types can be viewed in Table 1.

Conclusion

Organizational culture and compensation system are in the relationship of mutual dependence and mutual impact. Since both organizational culture and employees' compensation system influence, in different ways, the behavior and performance of employees and managers,

Table 1: Characteristics of compensation systems according to organizational culture types

	Clan culture	Market culture	Adhocracy culture	Hierarchy culture
Purpose and aim of the compensation system	Integration of organizational members	Stimulation of performance	Change and innovation generation	Control of behavior
Basis (criterion) of rewarding	Loyalty (years of service), commitment, contribution to integration	Performance on the market (sale, profit)	Innovativeness, initiative, learning and development	Efficiency in performing of tasks
Role of managers in appraising and rewarding	"Father"	Distant evaluator	Role model, mentor	Administrator
Portion of incentive payments in total earnings	Low	Very high	High	Very low
Development and formalization of PA system	Informal and undeveloped	Developed and formalized	Averagely developed and formalized	Highly developed and formalized
The nature of performance appraisal criteria	Qualitative, subjective, internal, based on personal traits and behavior	Quantitative, objective, external, based on result	Qualitative, subjective, external, based on personal traits and behavior	Quantitative, objective, internal, based on result
Performance appraisal criterion	Interpersonal influence	Performance quantity	Innovativeness, performance quality	Performance efficiency, discipline
Time horizon of appraisal and rewarding	Long	Short	Long	Short
Benefits	Developed, important	Undeveloped, unimportant	Undeveloped, unimportant	Developed, important

therefore it is extremely important to harmonize their influences. If cultural values and norms would guide the behavior of employees and managers in one direction while the rewards and punishments in the compensation system guide it in a different direction, this would weaken the influence of both the culture and the compensation system, decrease the efficiency of management and, eventually, endanger the performance of organization. Therefore, it is important for the company's management to know the mechanism and direction of mutual impact of organizational culture and compensation system.

Organizational culture determines the compensation system by shaping, through its values and norms, the target behavior and results to be achieved by the individuals and groups in a company and also by the company as a whole. Organizational culture also determines the criteria for appraisal of work and results of everybody in the organization, as well as the type of rewards to be distributed in the organization. On the other hand, compensation system influences shaping of organizational culture by imposing on the employees certain behaviors which imply very particular values and norms. Compensation system also influences the culture as a symbol of cultural values and norms, since it clearly shows to the employees what is valued and rewarded in the organization.

Matching compensation system with organizational culture increases the efficiency of managing the company. Therefore, it is useful for company management to know the features of compensation systems that match different types of organizational cultures. The purpose and aim of compensation system, the basis or criteria for rewarding, the role of the leader in compensation system, as well as the portion of incentive payments are important characteristics of compensation system that are different in different types of organizational cultures. Also, development and formalization of performance appraisal system, selection of performance appraisal criteria as well as their nature, and also performance appraisal time horizon should be harmonized with values and norms of organizational culture. Finally, development and importance of benefits are different in different types of organizational cultures. Knowing these facts, company management should provide the harmony between compensation system and organizational culture that exist in the company. This can be done by changing the compensation system or the organizational culture, or both.

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COMPETITION POLICY AND THE IMPACT OF MARKET STRUCTURE ON COMPANIES' PROFITABILITY

Politika zaštite konkurencije i uticaj tržišne strukture na profitabilnost preduzeća

Abstract

Competition policy has a role to ensure equal conditions for all market participants. This policy enables the realization of effective competition, which is a prerequisite for economic and broader social progress. To make competition policy be of a good quality it must be based on the findings of economic science, in particular the one concerning industrial organizations and relationships among market structure, conduct and performance of companies (SCP). The analysis of these relationships is the way for identifying market imperfections and the consequences that these imperfections have on society as a whole. The paper promotes economic analysis in the field of competition through empirical evaluation of industrial organization findings. Empirical research has shown a statistically significant positive impact of the change in market share on the change of the profit margin of companies operating in the Serbian beer market. Given that this market is highly concentrated, any increase in market share increases profit margin, and vice versa. Empirical research conducted in the paper is a sound basis for the professional and economics-founded application of modern competition policy measures aimed at preventing and punishing anti-competitive behaviour.

Key words: *competition policy, market structure, market share, non-competitive behaviour, profit rate*

Sažetak

Politika zaštite konkurencije ima ulogu da obezbedi jednake uslove za sve tržišne aktere. Takva politika vodi ostvarivanju efektivne konkurencije koja je preduslov ekonomskog i šireg društvenog napretka. Da bi politika zaštite konkurencije bila efikasna, mora da se bazira na nalazima ekonomske nauke, posebno industrijske organizacije i veze struktura-ponašanje-performanse kompanija (SCP). Analiza ovih relacija je način za identifikovanje tržišnih ograničenja i posledica koje ta ograničenja prouzrokuju za društvo u celini. Rad afirmiše ekonomsku analizu u sferi zaštite konkurencije kroz empirijsku evaluaciju nalaza industrijske organizacije. Empirijsko istraživanje je pokazalo statistički značajan pozitivan uticaj promene tržišnog učešća na promenu stopu poslovnog dobitka kompanija koje posluju na tržištu piva Srbije. S obzirom na to da je ovo tržište visoko koncentrisano, svako povećanje tržišnog učešća povećava i stopu poslovnog dobitka, i obrnuto. Empirijsko istraživanje sprovedeno u radu predstavlja osnovu za stručnu i ekonomski fundiranu primenu savremenih mera politike zaštite konkurencije usmerenih na prevenciju i kažnjavanje nekonkurentnog ponašanja.

Ključne reči: *politika zaštite konkurencije, tržišna sturktura, tržišno učešće, nekonkurentno ponašanje, profitna stopa*

Introduction

The state defines the complex of regulatory and system measures which create the environment for the expression and fulfilment of individual and collective interests. The state, acting in various spheres of life, defines and achieves goals of economic and social development. Therefore, important task of the creator of this development is to find an optimal combination of different policies (*policy mix*).

One of the most important spheres of state's direct and indirect actions is the economy. The complexity of

economic relations and interactions of economic agents produces the complexity of the regulation of this field. Therefore, economic policy has a task, within its system orientation, to define the goals of economic growth, determine the position and role of business entities, to develop methods, and implement appropriate means to achieve these goals.

Modern economies have commercial character. The market as a regulator of economic trends arises in them, as well as the state whose actions should allow unhindered expression of economic participants' interest. There are many modalities of the relation of the state towards the market. Excessive interference of the state has a direct impact on limiting the role of the market. It follows that the state should create a favourable environment for the expression of preferences of individuals and society as a whole, so that the market is left to ensure economic efficiency with its operation.

Pragmatic orientation related to the issue of free market is often limited to the withdrawal of the state from the economic flows regulation. This pragmatism involves the selective approach and inclusion only in cases when economic freedom of economic entities is threatened. The state, in this way, occasionally participates in business events when it is considered that these are activities that distort free competition, such as the fusion of certain companies, acquisitions, or mutual share in the capital of firms in the same field. On the other hand, the state itself is a monopoly and it must regulate monopolistic position of the public sector and achieve higher level of social welfare.

Efficient state easily removes visible defects and adapts to the demands of a modern economy. It should introduce methods of decentralized decision-making in the public sector and gradual deregulation. Along with deregulation it needs to create a powerful and efficient economic system as a prerequisite for achieving the maximum social welfare.

In designing the objectives and methods of transforming the economy, it is often started from the norms of liberal market economy, i.e. the existence of an integral market and the universality of market mechanism activities. Glorification of market power in regulating economic flows does have its limits. The market alone does not always work satisfactorily. There are fields, branches, and activities in which the functioning of the market does not give good results from the standpoint of economic entities and society as a whole. In such cases, the state with its economic role appears as a substitute for the market or as a supplement to the activities of the market mechanism.[1]

A much larger dilemma is related to the need for intervention in the case of limited competition and high concentration in certain markets. Often, the question arises of whether the strengthening of market position results from its corporate efficiency and its competence, or non-competitive practice of the corporation and the state [11, p. 121]. Monopolistic and oligopolistic structures can be the outcome of spontaneous strengthening of the market power of economic entities through competitive bidding. If it is a fair competition with no artificial advantages, the process can be useful to society. However, the problem occurs if the market situation changes based on state's activities that favour only some market participants through, for example, legal acts and subordinate regulations, privatizations, tenders, etc. The problem also arises when the improvement of economic entities' performance occurs from the lack of state response in the case of the abuse of already created dominant position. The reason for this is most often the ineffective competition policy.

In both cases, the increase in profitability is the result of the limitations of market structure. It is therefore essential to record and analyse the external sources of market participants' performance improvement, among which we can distinguish the market structure, especially its element – the market share. As a proof of this claim, the paper will show that there is a connection between the increase in market share and companies' profitability

1 The public sector has traditionally been under the strong, often exclusive influence of the state regulation. Products and services of the sector meet mainly essential, individual, and general social needs, which is why the state is engaged in the organization of production and provision of products and services, as well as the control of their quality and quantity. Industries with significant external effects, are also the area of state regulation, especially if ecological conditions for survival and sustainable growth are threatened. Also, industries with the so-called stagnant technology, such as mining or parts of agricultural production, due to their importance, require state protection. There is also a need for state intervention in the markets of products with inelastic demand because of the protection of the living standards of population.

growth in the market with a high concentration, such as the Serbian beer market. The intention of the empirical analysis is to show economic policy makers, including competition policy, that there is the need for *ex ante* effect on the competitive conditions in the industries, and the need for vigorous action in cases of abuse of monopoly position.

The impact of economic policy on the character of market structures

The economy is a subsystem that has parallel relationships with other segments of society. It takes care that human activities are used in the most efficient manner with the least expenditure of limited resources. However, economic freedom contains the latent danger of self-destruction. Economic trends have an inherent tendency toward growth and merging to create a dominant position and provide the highest possible profit. Such activities typically result in limiting the freedom of other market participants. These tendencies, unfavourable for society as a whole, should be disabled with preventive measures and legal sanctions.

Competitive rivalry includes the forms of competition within the existing markets, taking into account the barriers to these markets entry. This includes rivalry in prices, but also the change and improvement of production and sales techniques. All these forms of rivalry have implications of the level of technical efficiency of production, consumption standards, allocation of resources between sectors, and the evolution of market structure.

Economic policy seeks to provide an optimal balance of different objectives. All objectives should promote effective competition and the optimal allocation of limited resources. Economic efficiency, which is achieved through the optimal allocation of limited resources, is compatible with other economic objectives, such as: (1) the integration of markets; (2) consumer welfare, which increases with the increase of the level of competitiveness; (3) the protection of consumers in the context of individuals' general protection; (4) the distribution of income (wealth) and the dispersion of the wealth to a greater number of individuals, in proportion to their contribution to the achievement of joint income; (5) the protection of small and medium-sized companies by increasing the number of competitors (without the protection of incompetent economic entities); (6) regional, structural, and social balance, which is reflected in state interventions targeted at the area of balanced regional and industrial development and increase of employment.

The above objectives are very different, and difficult to achieve simultaneously. Therefore, some measures of economic policy are oriented towards the realization of a certain goal, without realization of or even with a negative impact on other objectives. The goals are not fixed and immutable. Depending on the circumstances in a particular market, some of them will be more important than the others. At some point in time some of the goals may be the focus of economic policy makers, and at some other point some other goals. Also, the intensity of the implementation of measures will be different at different times and for different purposes. In all of this, political commitment to solving specific problems has a significant role and the hierarchy of these objectives depends on the constellation of actors' power in the political scene. Regardless of all of these controversies, economic policy should lead to prosperity, freedom, equality, and social justice.

In the case of small number of large companies in a market, the potential abuse of market power affects the reduction in output and increase in price compared to the market with no such abuse. The reason for this behaviour is the realization of monopoly extra profits, which reduces consumer welfare. The loss of consumer welfare motivates the state to intervene to prevent the abuse of monopoly position and affirm healthy competition. State interventionism aimed at fostering effective competition can be made through the following activities:

1. Preventing connection of corporations and division of large corporations to smaller ones. This measure influences that the market is less concentrated.
2. Direct impact on corporations' conduct by limiting the increase of product sales prices, in order to prevent pricing at socially unacceptable level. Also, the state sanctions any agreement between corporations that threatens free competition, whether it is common pricing, production volume, etc.
3. The state affects the conditions of competition with

other various measures. These measures are related to fiscal policy, employment policy, environmental policy, etc.

When it comes to state interventionism, the key question is related to the two perspectives of the need for state interference in economic developments. The first perspective is against any kind of intervention, while the latter one requires significant interventionism in order to eliminate market failures. The most important representatives of the first perspective are members of the Chicago School. Supporters of the school felt that some firms are large because they are more effective than the others and that the efficiency allows them to be more profitable than the competition. It follows that punishing large corporations actually means punishing success. Any deviation from the anti-competitive conduct is only a short-term phenomenon, as economic activity tends to return to a state of natural balance, i.e. effective competition. Large profits encourage other economic entities to be more efficient and become equal competitors to large corporations so that the market returns to competitive conditions without the need for any intervention or assistance by the government [10, p. 15]. [2] The prevailing opinion is that economic entities should be left to organize themselves in a way that suits them in order to be more efficient [3, p. 690]. Advocates of interventionism see economic problems, including those in the sphere of competition, in the shortcomings of the market. Correcting the shortcomings allows better working conditions for both competitors and consumers. Advocates of this approach are the supporters of the Harvard School of economic thought.

In analysing the impact of the state on economy one should be careful. The role of the state is important, but it certainly should not be over-emphasized. The state influence on market environment and, through it, on the conduct of economic entities is justified if it ensures the development of free competition and corporate governance in accordance with their evolving capacities, potentials, and market characteristics.

2 This uncompromising attitude of the Chicago School encountered a criticism by other authors, including a claim that the school, with its attitudes, promotes ideology rather than science. For more details see in [4, pp. 37-48].

Competition policy

One of the primary intentions of the market-oriented economy is the provision of competitive market conditions, i.e. the development of a competitive market structure. Competition is seen as a process of constant changes in which the profit and usefulness are the main motives of economic activity. In an open market economy there is an increase of social welfare only with discreet and selective control and intervention by the state over the conduct of economic entities.

No matter what market is in question, we can expect that the firms with the lowest costs, regardless of the market price, will have the greatest chance of success. Starting from the rational conduct of firms, their pricing policies are expected to establish a price that can attract customers and ensure maximum profits. Under these conditions, low cost and rapid growth cause transfer of market shares from less efficient to more efficient companies. The mechanism of transfer can have the effect of feedback on the efficiency in terms that less efficient company gets motivated – if it wants to restore or increase market share it must reduce costs and innovate business. In this way, transfer and innovative market mechanisms have a positive effect on allocative efficiency, because the reallocation of output and resources occurs towards the most efficient and most profitable investments.

However, the outcome of this process can be market position strengthening of a small number of successful companies. Repeated success from the past and high profit, achieved by the actions of economy of scale or increased innovative capacity, can result in a small number of large firms winning the market. This process can theoretically lead to the elimination of all competitors and the absolute dominance of a company. Then we talk about pure monopoly. If, in practice, there is such a tendency, the process is spontaneously finished in the dominant form of monopolistic or oligopolistic structure.

Monopoly position significantly changes the conditions of competition in the market. It reduces the pressure to increase efficiency. The market price is higher, and the offer is lower than in conditions of effective competition. High fixed costs and reduced economic efficiency of

large companies cause the retention and strengthening of the existing positions, primarily through a policy of high (monopoly) prices. Thus, the motivation to improve products and production reduces. The result is a decrease in efficiency in this type of market and limitation of new market players to enter.

In an open market economy, there is a need for defining and implementing economic policy which needs to support the effective functioning of production and exchange. The term efficiency in this sense means the likelihood to meet domestic demand for goods and services, to implement sufficient amount of personal products abroad, and to enable the accomplishment of the target functions of market participants. In analysing the impact of economic policy we will confine ourselves on competition policy as an important segment of economic policy, which determines general conditions for economic entities' conduct in the market [21, p. 38]. It is assumed that the regulation of economic conduct should ensure achieving efficiency of the economy and society. This means that competitive behaviour should be stimulated and monopolies and other restrictions regulated to ensure the production of products and services of sufficiently high quality at an affordable price and low costs. Effective competition is therefore a desirable state. If it does not exist, it should be established by the measures of competition policy.

The mission of the competition policy is to level the conditions of competition in all market segments. The openness of individual markets is the condition to encourage enterprises to cost-efficiency, innovation, and inventiveness. Increasing welfare in companies increases the overall welfare. Undisturbed competition, which includes free movement of goods, services, capital, and people, creates space for synergy between different factors.

The main task of competition policy is to establish and preserve competition by eliminating activities of companies or the state which affect the weakening of competition, as well as to improve conditions for free trade. Competition policy seeks to provide a delicate balance of different goals to promote effective competition. One of the most important is to protect market participants from excessive market power of companies and the misuses that can arise from this. In this way, the social task is assumed which is essentially to protect individuals and companies. Another important goal is to improve the business capabilities of company, particularly the provision of technical and technological progress. These goals lead to the raising of living standards and overall social progress.

Of course, there is no guarantee that protection of competition would meet the overall goal to raise the level of operational efficiency of manufacturers. Frequently, there is a possibility of conflict of various economic policy measures, which can threaten competition. This happens when there is a gap between the promotion of competitive conduct through competition policy, on the one hand, and the reduction of competitive conduct induced by other aspects of state policy, on the other hand. These other aspects are mainly related to the maintenance of the "national" interest through providing assistance to certain industries (agriculture, shipbuilding, new technologies), mainly due to an increase in employment. It is even more drastic if the aid is intended for specific market actors, which leads to unfair favouritism of several over other actors. This activity is especially risky if implemented without clear and transparent rules and procedures.

In the relevant literature in this sphere the emphasis is on welfare loss due to integrations, the increased power of monopolies, and restriction on free trade. That is why, in light of current economic and political relations, it should be pointed to the necessity of direct and indirect regulation of the conditions of competition applying adequate measures of competition policy, which must take into account the conclusions of the economic profession especially those related to industrial organization and the relationship that exists between the market structure, conduct, and performance of market participants. Relationship that exists between the market structure, conduct, and success of corporations is the key for identifying market imperfections and the consequences that these imperfections have on society as a whole. It is one of the reasons that competition policy focuses on the relationship so that *ex ante* would impact mitigating or completely eliminating the factors that create or enhance non-competitive behaviour.

Relationship between market structure, conduct, and performance of companies

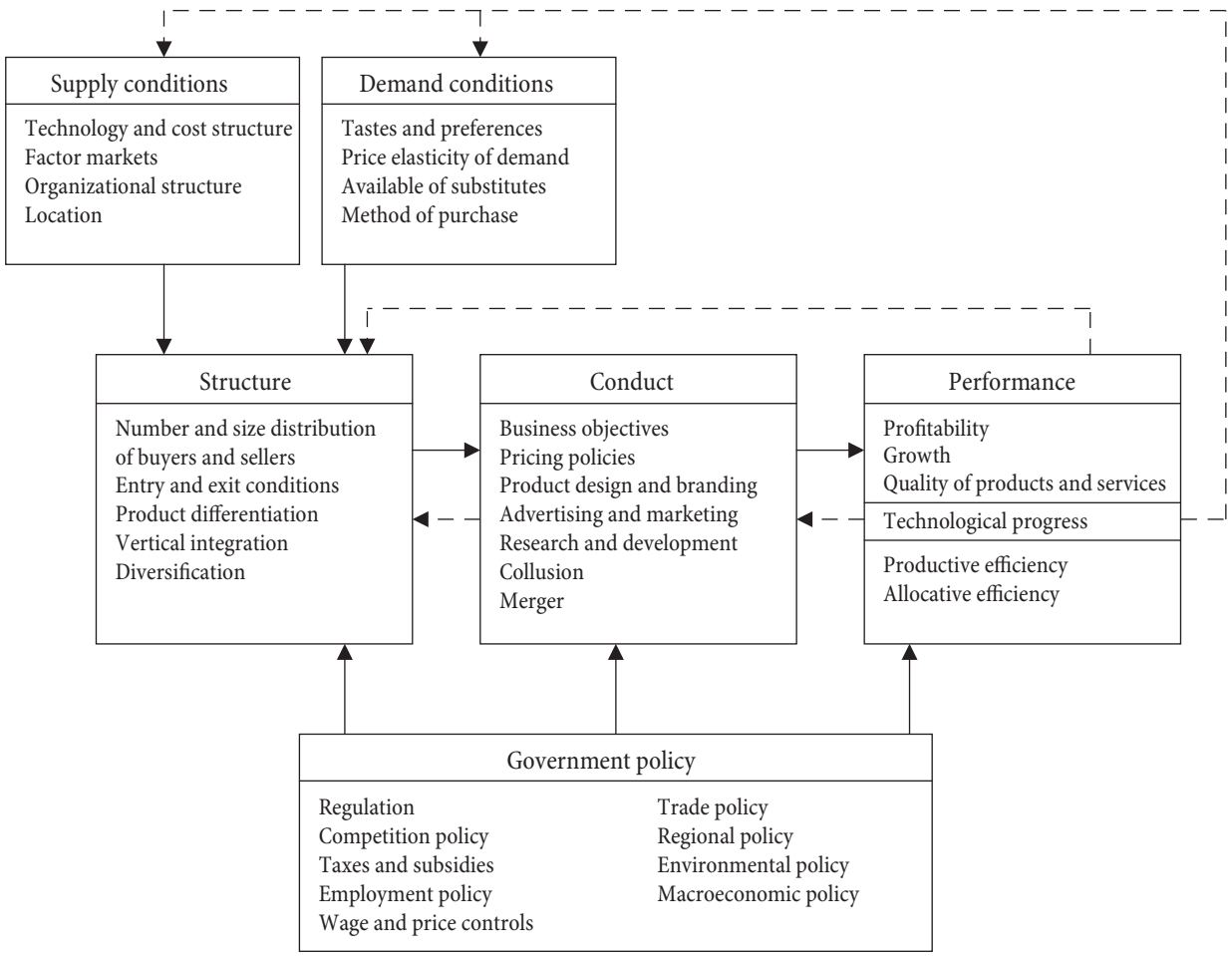
In order to estimate the degree of market imperfections, market participants' conduct, and the abuse of monopoly position it is important to analyse the relationships that exist between market conditions, conduct, and performance of economic entities. The first works in the field called industrial organization were related to the so-called structure-conduct-performance paradigm.[3] This paradigm was created with the aim of developing a theory that would explain the conduct and performance of corporations through the analysis of empirical data [10, p. 6]. A number of studies within this approach have shown that there is a positive correlation between the concentration of supply and the average profit rate in the industry. In industries where the level of supply concentration is higher the average rate of profit in the industry is higher as well [2, p. 323]. The thesis of this approach is that market structure affects the conduct of companies, which affects their performance i.e. profitability as the most important and most frequently mentioned performance [9, p. 133]. Market structure and market share of individual corporations are seen as the main sources of non-competitive conduct. They largely determine corporate conduct and thus affect their performance.

Figure 1 presents the influences and relationships that exist between market structure, conduct, and performance of corporations, i.e. the logic of SCP paradigm.

As shown in Figure 1, in the model, the main relationship is between market structure, conduct, and performance of individual economic entities. This relationship explains the logic of the model and the main direction of influence in it.

3 The structure-conduct-performance paradigm (SCP paradigm) was created in the mid-twentieth century, in the works of Bain and Mason. Information see in [2, pp. 293-324] and [14, pp. 1265-1285].

Figure 1: Structure-conduct-performance paradigm



Source: [10, p. 7]

The market structure consists of its characteristics and morphology, so that the classification goes from perfectly competitive, monopolistic and oligopolistic competitive market, to pure monopoly. The aforementioned market structures in reality are rarely seen in their original form. Real market structures are usually somewhere between the basic versions, where indicators of its concentration and inequality have the greatest impact on the recognition of market structure [6, p. 63]. The number of criteria used for classification is different. Some authors use only one criterion, while others use a combination of criteria to determine to which market structure belongs some market [22, pp. 142-145], [12, pp. 111-114]. Characteristics of the markets are subject to slow and periodic changes, so that in a short run they are considered to be fixed categories. Some of the criteria used to classify market structures are: the number of buyers and sellers and the distribution of their market share; the conditions of entry and exit from the market; cross price elasticity of demand; product differentiation, and vertical integration and diversification.

Conduct of corporations and strategic actions taken depend primarily on the characteristics of the market itself in which these corporations operate. The market structure affects the definition of corporations' business goals and the implementation of their pricing and non-pricing policy [9, pp. 135-136]. Some of the major components that define the conduct of corporations are [10, p. 8]: corporate business objectives; pricing policy; design, branding, and advertising of the product; research and development; agreements among corporations and corporate connectivity. A company has at its disposal a number of options, and the choice of one or more of them largely depends on market conditions.

Performances are the final outcome, the results of corporations' operations. They are significantly influenced by the market structure and corporations' conduct. Important performance indicators are [10, p. 10]: profitability; growth; quality of products and services; technical progress, and production and allocative efficiency. These indicators represent a wide range of success measures. Profit is a target function of a company when it comes to the interest of the owner, and in the case of managers growth is its target function. When it comes to society, the goal is to achieve productive and allocative efficiency.

Figure 1 displays some feedbacks in the relations performance-conduct, conduct-market structure, and performance-market structure. The feedback performance-market structure is particularly interesting, which indicates that there is an impact of performance on market structure. This means that, as structure directly determines the success of the corporation, so does the success directly affect the structure. Large profits that are the product of a limited market motivate economic entities to further limit the market so the profits would be even higher. On the other hand, large profits motivate new companies to enter the market which can reduce its concentration. From the feedback connections from the performance and conduct towards the structure, it can be concluded that economic entities are not passive actors whose conduct and performance depend on the environment in which they operate, but are active participants that affect the business environment.

In all these correlations the influence of economic policy of the government is very important, which is achieved through legislation and a number of different policies, such as: competition policy, regional development policy, tax policy, trade policy, etc. The government impact is focused on market structure and directly on the conduct and performance of corporations.

The impact of companies' conduct on the character of market structures

The analysed impact of market conditions on business policy and the results of corporate actions is facing significant problems. Among them we can distinguish the impossibility to precisely determine which variables belong to the structure, which to the conduct, and which belong to the performance of corporations. Thus, for example, product differentiation, vertical integration, or diversification are considered structural (market) variables. In fact they are, but since these are the variables whose level of achievement is defined by the corporations themselves, they can be classified in conduct.

Defining performance as a measure of the success of corporate activities is also very questionable. The question is whether it is possible to have a single measure

of performance. Profit rate is often used as a measure of success, although it could happen that investors who prefer less risk invest money in a business that makes less profit. From this it follows that measuring success according to the short-term profit is not necessarily a good indicator of success. Profitability should be put in the context of investment risk and time frame in which profitable business is expected.

Many of the variables used for characterizing the structure, conduct, and performance of corporations are hard to measure. The question is how to measure the level of vertical integration, or to determine the existence of an agreement between corporations. Measurement problem also occurs in determining the degree of limitation of the market. Mistakes are often made in the exclusive use of concentration indicators. This is done primarily because they are relatively easy to calculate. The use of only these indicators overemphasizes their importance, which is not good because other factors are not taken into account such as barriers to entry, history of market development, corporate culture and the like [10, p. 16]. Large restriction in the use of concentration indicators is the fact that most of today's companies have a differentiated product range which makes the use of conventional concentration indicators very complex [7, p. 103].

The problem of the researches is also the fact that they most often study the relationship that exists between structure and performance of corporations, while conduct is taken as a given variable. An additional problem is the absence of dynamic analysis since the short-term equilibrium is explored. There is no explanation of the structural variables evolution and impact of current conduct and performance on the future structure. From this it follows that the SCP paradigm is suitable only for the current (static) assessment of the situation and impact that this situation has on economic entities, their conduct, and performance.

These critics point to a number of shortcomings and limitations of the analysed paradigm. What dominantly prevails through all the criticism is overly passive role of corporations, which is manifested by the fact that they adapt to market conditions in order to maximize their performance, and if they affect them it is sporadic and weak. It follows that paradigm should be improved by understanding that the relationship between structure, conduct, and performance is a two-way process, so there is no assumption that the market structure is the most important component. There is also an active influence of a company on market conditions.

Alternative to the researches is the analysis of the impact of economic entities' conduct on the market structure [10, p. 298]. [4] As a result of this approach, a number of authors tried to analyse the competitive conditions by monitoring corporate conduct. This approach is firmly established on the basis of microeconomic theory, especially the theory of oligopoly. It answers the question of how firm's conduct affects the structure of the market. This creates space for a wider variety of possible outcomes, because it suggests that the market structure, among other things, is the result of a strategic conduct and interactions of economic entities that operate in it [8, pp. 6-7].

Empirical researches within this approach try to explain companies' conduct when they determine the equilibrium level of output and prices. However, in practice the standard equality between marginal revenues and costs is not usable due to lack of data, which requires a model which based on the available data finds the equilibrium price and quantity. The models, which represent practical realization of this idea, are Rosse-Panzar revenue test and Bresnahan-Lau's mark-up test, which due to the volume of work we are unable to to present on this occasion. We shall focus primarily on the relationship between market structure and performance of corporations, seeking to clarify the interaction that exists between the market structure, conduct, and performance in a specific market of Serbian economy.

The impact of market share on companies' profitability: Example of Serbian beer market

In accordance with all of the above on the role of the state in the relationship between the market structure, conduct, and performance of corporations we have started empirical

4 Approach which analyzes the conditions of competition through the prism of the companies' conduct and by which they are not treated as passive elements, but rather as active agents that affect the market structure, is called the new empirical industrial organization (NEIO).

research of specific market of Serbian economy. The aim of this section of the paper is to examine the impact of market share on the profit rate, and to shed light on the conduct which is between the two analysed components of the relationship structure-conduct-performance of companies. Due to the relatively short time series of data at our disposal, we have not been able to measure the impact of concentration indicators, but we decided to measure the impact of market share degree on the profit rate. Of course, we have started from the assumption that the market share is an important component of the market structure, and that the profit rate is an important element of successful business corporations. The starting assumption and also the hypothesis of this study is that *changes in the market share have a positive impact on the profitability of corporations*. To support this view and the definition of initial hypothesis, we can distinguish the works of foreign authors who have studied the relationship between market share and profit rate: *Shepherd* [20], *Szymanski*, *Bharadwaj*, *Varadarajan* [24], *Ailawadi*, *Farris*, *Parry* [1] and *Sungwook*, *Wolfinbarger* [23].

Methodology and data sources

According to the defined objective the paper investigates the effect of the market share degree on the profit margin, as a measure of corporations' profitability. This impact is measured on the example of Serbian beer market. Market share is determined using the income from the sale of individual economic entities from the beer production (business code 11.05) [15, p. 24] for which we can say with great certainty that they are engaged in the production and sale of beer, while the profit margin is determined by calculating the ratio of operating profit or loss of individual companies and their operating income. Incomes from the sale were used for measuring market share, since they represent the real sales value during the financial year regardless of when the product was created. On the other hand, using the category of operating profit (loss) in measuring the profitability, the effect of other incomes and expenses (financial and extraordinary), which are not the result of the main business activity of analysed corporations, was eliminated. The analysis was based on data obtained by the Business Registers Agency of Serbia [16], [17], and the data that are available on the website of the agency [18].

Before moving to the study of the analysed market and relationships between market share and profit margin, economic entities whose principal business activity is the production of beer are carefully selected (business code 11.05) in order to reach those entities for which we can truly say that are engaged in the production of beer. Within the company with business activity 11.05, the companies that are not engaged in production but the sale of beer were also included; then there are beer houses whose inclusion in the analysis is meaningless because of the insignificant market share considering they sell their products in a single facility. There are also associated persons whose incomes blur the realistic assessment of producer's market position, so we omitted them from the analysis. After a thorough examination of data obtained from the BRA, we came up with a list of 18 economic entities for which we can say with great certainty that are engaged in the production of beer of which 12 are "large" breweries with a long tradition, and 6 are local breweries whose combined market share does not exceed 0.04% so we did not include them into the analysis. The sample included all corporations, beer manufacturers, whose market share in 2007 was 1 per cent or more. That meant the inclusion of 9 out of 12 "large" breweries, which at the time of the commencement of the research were active. The data were collected only for the years in which the breweries actually operated, or for which we had credible information. The research covered the period between 2007 and 2011.

On the basis of the obtained data a preliminary assessment of the beer market, which contains the characterization of market structure and estimation of the level of its limitations, was performed first. This was followed by the panel data analysis in order to assess the relationship between market share and profit margin.

The following indicators of concentration and inequality were used for determining the limitations of the market:

1. Concentration ratio of the four largest corporations [26, p. 95]: $CR = \sum_{i=1}^{4} s_i$;

2. Herfindahl-Hirschman index of concentration [13, p. 336]: $HHI = \sum_{i=1}^{n} w_i s_i = \sum_{i=1}^{n} (s_i^2)$;

3. Gini coefficient [10, p. 203]:

$$G = \left\{ \frac{\sum_{n=1}^{N} \sum_{i=1}^{n} x_i}{0{,}5(N+1)\sum_{i=1}^{N} x_i} \right\} - 1 \text{ ; and}$$

4. The index of relative entropy [10, p. 203]:

$$RE = \frac{E}{\log_e(n)} = \left[\frac{1}{\log_e(n)} \right] \sum_{i=1}^{n} s_i \log_e \left(\frac{1}{s_i} \right),$$

which was used in this form for the comparability of results between different periods.

In addition to this analysis the panel analysis was performed as well, which involves observation and analysis of the conduct of a number of entities over time. Specifically, this analysis involves repeated measures on the same entities over time, in order to examine the relationship between the observed phenomena [25, p. 2]. This analysis constitutes the central part of the research. Data analysis was performed in the statistical program *EViwes7*.

Preliminary assessment of the situation in Serbian beer market

Serbian beer market can be characterized as a typical oligopoly market in which there is one dominant firm with a market share of about 50%, that is Apatin brewery from Apatin, one firm – a great follower with a market share of around 25%, Carlsberg Serbia from Čelarevo, one firm – a mediocre follower with a market share of around 15%, the United Serbian breweries, which are currently two active breweries (Brewery Novi Sad and Brewery Zaječar) and a small number of followers with great potential, among them the BIP from Belgrade with a market share of 4 to 5%. In this group with BIP are Jagodina brewery, Niš brewery, and Valjevo brewery, whose aggregate share is in the range up to a maximum of 10%. There is a group of once great but now breweries in decay which, due to poor privatization, completely disappeared or are in bankruptcy proceedings. These are Vršac brewery, Bečej brewery, and Zrenjanin brewery. There is a small number of local breweries in the market that have been established in recent years whose combined market share is below 0.04%, which therefore have no impact on Serbian beer market [17], [18]. Their market share is so small that they have insignificant impact on the relevant local beer market, and are not the subject of our analysis. Based on these above data it can be concluded that the beer market is characterized by high concentration and inequality in the distribution of supply, as displayed in Table 1.

Table 1: Selected indicators of concentration and inequality in the Serbian beer market

Year	CR4	HHI	G	RE
2007	90.05	3033.06	0.633	0.626
2008	95.97	3792.13	0.667	0.543
2009	96.45	3680.92	0.664	0.550
2010	97.00	3581.69	0.665	0.546
2011	97.20	3554.95	0.633	0.569

Source: Authors' calculations based on [16] and [17]

As can be seen, the beer market is a very limited market according to all indicators of concentration and inequality. What is characteristic for all parameters (except CR_4, which is constantly growing) is that they are relatively stable at a high level. The high level of concentration and inequality affects the operations of all corporations in the industry. The effect is positive for those with large and negative for those with small market share.

Research results

Analysis of data on the impact of market share on the profit margin of corporations in the Serbian beer market gave the results shown in Table 2 and Table 3.

Table 2: Descriptive statistics of the sample

	Profit margin (pm)	Market share (ms)
Mean	-0.195776	0.118934
Median	-0.143400	0.045400
Maximum	0.335700	0.537900
Minimum	-1.104100	0.005500
Std. Dev.	0.346095	0.168641
Skewness	-0.948103	1.576726
Kurtosis	3.385732	4.029303
Jarque-Bera	6.396662	18.79804
Probability	0.040830	0.000083
Sum	-8.026800	4.876300
Sum Sq. Dev.	4.791256	1.137591
Observations	41	41

As shown in Table 2 the sample consists of 9 companies whose market share and profit margin were analysed in the period between 2007 and 2011. The largest market share in the sample is 53.79%, and the smallest 0.55%, and the average market share 11.89%. As far as profit margin, the highest rate was 33.57% and the lowest -110.41%. The average rate of operating profit (loss) was -14.34%.

As it can be seen from Table 3, there is a statistically significant positive impact of market share on the profit margin. Namely, research has shown that in the observed sample of corporations in Serbian beer production, one per cent of change in market share leads to a change in profit margin of 4.44% in the same direction. When the market share of the corporations increases its profit margin also increases, and vice versa. It is important to note that 79.51% of variations in profit margin can be explained by changes in market share, or the relation given in Table 3. *In this way, our claim is proven (research hypothesis), i.e. the change in market share has a positive effect on the profitability of corporations in the sector of Serbian beer production.*

Based on the analyses presented in Table 3, the impact of market share on the profit margin can be displayed through the regression equation in the form [25, p. 10]:

$$Y_{it} = c + \beta_1 X_{it} + \alpha_i + u_{it} \qquad i = 1,2,...n \qquad (1)$$

where Y_{it} is the dependent variable of the *i* entity (company) in year *t*, X_{it} is an independent variable of the *i* entity in year *t*, β_1 is the coefficient before independent variable, α_i is an unknown segment for each entity, and u_{it} is the residual, or statistical error. It follows that we have the following regression line for the analysed sample that shows the impact of the change in market share on the profit margin:

$$pm = -0{,}72 + 4{,}44ms + \alpha_i \qquad (2)$$

where *pm* is the profit margin, and *ms* the market share.

Concluding remarks regarding the research and recommendations for future researches

Based on the obtained results it can be concluded that the Serbian beer market, which does a high level of concentration characterize and inequality in the distribution of market share there is a statistically significant positive impact of market share on profit margin. The increase in market share of 1% leads to an increase in profit margin of more than 4%, as the decrease of 1% decreases this rate by more than 4%. The connection between these two phenomena is very strong, which is indicated by the value of *p* (*p = 0.0267*). Statistical significance would probably be even greater if we had longer time series and greater number of data.

Thus the results indicate that corporations seek to achieve great market share as a guarantee of successful operation measured through the profit margin. This is strong evidence that the market structure, through one

Table 3: Results of the Panel data analysis

Dependent Variable: Profit margin (pm)
Method: Panel Least Squares
Date: 07/13/13 Time: 06:33
Sample: 2007 2011
Periods included: 5
Cross-sections included: 9
Total panel (unbalanced) observations: 41

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.723568	0.226525	-3.194214	0.0036
Market share (MS)	4.437683	1.893478	2.343668	0.0267
Effects Specification				
Cross-section fixed (dummy variables)				
Period fixed (dummy variables)				
R-squared	0.861677	Mean dependent var		-0.195776
Adjusted R-squared	0.795077	S.D. dependent var		0.346095
S.E. of regression	0.156672	Akaike info criterion		-0.604137
Sum squared resid	0.662743	Schwarz criterion		-0.019015
Log likelihood	26.38481	Hannan-Quinn criter.		-0.391068
F-statistic	12.93806	Durbin-Watson stat		1.602252
Prob (F-statistic)	0.000000			

of its major elements (market share), affects corporations' conduct that leads to achieving higher profit margins.

Our research has some limitations, which are the basis for some future researches. Limitations can be systematized in the following categories. The first one is the availability of data. The research was performed on the example of 9 breweries in the period of 5 years. Both of these elements are characterized by the lack of data, but the circumstances in which the research was conducted did not allow us to reach a larger number of data, especially if it is known that systematized record of financial statements in the BRA was not kept until 2006. In perspective, the time frame for the analysis will be larger and the research more representative. Another limitation is related to the extrapolation of the regression line obtained. Although the regression line gives conclusions on the impact of change in market share on the profit margin, which can be used for prediction, this is impossible concerning the values that significantly deviate from those included in the sample. It can be concluded that the predictions may be applicable only for values that are within the taken values of market share, as well as for those that are outside the taken values, but at the same time close to the maximum and minimum values of the market share in the sample. All extremely distant values of the independent variable which would be taken have a high probability of erroneous conclusions. Third, in the future researches other indicators of business performance should be analysed as well, not just the profit margin. Profit rate is often used as a measure of success, though it may happen that some companies in the short term sacrifice it in order to achieve better market position, mainly by using the policy of low prices.

Notwithstanding all these limitations, the research showed that there is a strong relationship between market share and profit margin in Serbian beer production, and that this should be a clear signal to the regulatory authorities for additional monitoring of corporate conduct in this market. For this reason, this approach can be a starting point for further research of corporate conduct, in particular the facts of whether the corporations further limit market conditions to improve their performance, measured by profit. This is particularly true in markets that are highly concentrated, and Serbian beer market is one of them.

Conclusion

In the economic literature there are two approaches to the analysis of the mutual influences of market structures on the one hand, and conduct and performance of economic entities on the other hand. The first is based on the market situation and the impact it has on the market participants, i.e. from the premise that performance depends on a factor that is beyond company's influence, while the second approach is based on corporations' conduct and the impact on the market and its structure [5, p. 2]. The first one is static, structural view of the problem, and the other one a dynamic view of the relationship between market structure, conduct, and performance of corporations.

Both approaches assume that the main goal of every company is maximizing the performance, especially profit, and a long-term balance of both market participants and the entire market. The difference between the approaches is in starting assumptions: first approach assumes that the balance has been achieved, while the second approach is aimed at maintaining balance. This leads to a fundamental difference in the two approaches to the treatment of market participants as passive or active factors, which influence the market structure and conditions of competition.

The role of economic policy in the creation of market structures is in accordance with these differences. By reducing the degree of market concentration and eliminating barriers to entry and exit, the state can influence the reduction of individual profits of economic entities. The starting point is that a high concentration influences the non-competitive conduct of economic entities, which provides them with a great profit at the expense of social welfare. [5]

Contrary to the above paragraph, numerous authors from the camp of liberal economists claim that the monopolization is a temporary phenomenon, and positive correlation between concentration and profitability is seen as the result of business efficiency and the size of a company, and not of its monopoly position. Larger firms achieve economy of scale more efficiently, which

5 Because of the claim that the main reason for non-competitive conduct and realization of great profit is the market structure, this approach is named structuralist approach to the study of the relationship between market structure, conduct, and performance of corporations. Information see: [19, pp. 3-16].

allows them greater profit. Starting from the idea that the efficiency of a firm is more important to the evaluation of its performance than the market structure itself, the authors recommend that greater importance should be focused on the conduct of firms and not the characteristics of the industry. Economic entities are not just passive actors whose conduct depends on the market structure, but are active participants in the creation of competitive conditions. This approach suggests that the market structure is the result of strategic interactions between companies, not just the result of external factors influence. From this it follows that studying the relation between market structure, conduct, and performance of a company requires a comprehensive analysis that includes in itself the specificity of the activity itself, but also the individual entities operating in this sector. The key argument of this theory is that the existence of large corporations and high level of concentration do not always have bad implications for social welfare. Competition is also possible in industries where there are few participants if there is a real threat of new competitors' entry [8, pp. 6-7].

In accordance with different approaches to the analysis of the relationship between market structure, conduct, and performance of market participants recommendations for economic policies are different as well, particularly for anti-monopoly policy. Anti-monopoly policy is required to have a proactive approach in which focus will be sectorial analysis of corporations' conduct and the influence of market structures on corporate performance. Policymakers, regardless of the question of whether conduct affects the structure or vice versa, should apply all possible measures that will lead to achieving greater economic efficiency and effective competition. An effective competition policy should, with preventive and repressive actions, contribute to the social welfare, which is also its most important role. Strengthening capacities in the economic analysis is a prerequisite for the successful implementation of that role.

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FOREIGN DIRECT INVESTMENT AS EXPORT FACILITATOR IN SERBIA'S APPAREL INDUSTRY[1]

Strana direktna ulaganja kao pokretač izvoza u srpskoj odevnoj industriji

Abstract

The attraction of foreign direct investment, especially export oriented FDI has been one of the main economic policy goals for Serbia since the start of transition in 2001, backed by incentives for attracting this type of investment. The apparel industry is one sector that has drawn significant amount of FDI, and where the link between FDI and exports is emerging strongly, as confirmed by data presented in this article. Appearance of several multinational investors, particularly from Italy, led to positive spillovers on Serbian apparel industry in terms of specific products production and their export on foreign markets, especially "panty hose, tights, stockings & other hosiery, knitted or crocheted". In 2012, Serbia's exports for this product represented 1.8% of world exports, ranking Serbia 10th in the world and hence representing a rising niche export. Recent investments of big industry players like Benetton will have further positive effects on export and employment in years to come, provided that the government engages in activities to improve branding in addition to continued investment incentives and policies aimed at advancing infrastructure, education and general business climate.

Key words: *FDI, export, apparel industry, Serbia*

Sažetak

Privlačenje stranih direktnih investicija, posebno izvozno usmerenih, jedan je od osnovnih ciljeva srpske ekonomske politike od početka tranzicije 2001. godine. Razni podsticaji su pruženi stranim investitorima da bi se odlučili baš za Srbiju kao odredište. Jedan od sektora koji je privukao veliki broj stranih direktnih investicija, posebno iz Italije, i gde je sve vidljivija veza između SDI i izvoza, je odevna industrija Srbije. Investicije nekoliko multinacionalih preduzeća u Srbiju podstakle su proizvodnju specifičnih proizvoda i njihov izvoz na strana tržišta. Uticaj SDI na izvoz proizvoda odevne industrije se najbolje može videti kroz podatak da je Srbija u 2012. po izvozu čarapa zauzela 10. mesto u svetu, uz udeo od 1,8% u svetskom izvozu, što predstavlja izvoznu nišu. Investicije velikih igrača kao što je Beneton, tek treba da daju pozitivne rezultate kada je izvoz i zapošljavanje u pitanju, uz dodatno angažovanje države radi unapređenja imidža zemlje i nastavak podsticaja investitorima i mera koje imaju za cilj unapređenje infrastrukture, obrazovanja i opšte poslovne klime.

Ključne reči: *SDI, izvoz, odevna industrija, Srbija*

Introduction

The attraction of foreign direct investment, especially export oriented FDI has been one of the main economic policy goals for Serbia since the start of transition in 2001, backed by incentives for attracting this type of investment. More than 12 billion Euros of foreign direct investments reached Serbia in the period between 2005 and 2010 [17] but the impact on export and economic development is yet to be researched. The apparel industry is one sector where the link between FDI and exports is emerging strongly and this link will be studied in further detail in this article.

The research methodology includes both literature review (presented below) and a field study of Serbian apparel industry conducted in March-June 2013. Following a review of primary sources such as Serbian trade statistics, Business

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Registry Agency data and world trade statistics – ITC and secondary market research, the information collected was used to formulate questionnaires for interviews with sector stakeholders, including manufacturers, associations/clusters, relevant organisations, government officials and other sector experts. The questionnaires were designed to provide both quantitative and qualitative information and to encourage practical, timely and market-based recommendations from a total of 35 stakeholders. Field interviews were conducted both through direct interviews and focus groups, in several towns in Serbia, namely Ada, Arilje, Belgrade, Novi Pazar where there is a concentration of apparel producers. The companies were selected to allow for geographic and product diversity, while ensuring that subsector small and medium size enterprises (SME) leaders are included (list compiled of companies noted in previous studies and based on recommended by associations and peers). Key government officials, industry leaders and experts have also been interviewed. Only aggregate results are here presented to preserve anonymity of interviewees (*Note:* This study was supported by the Swiss Economic Cooperation Office as a basis for further activities in promoting exports of Serbian apparel.)

Literature review

Several researchers have studied the role of foreign investment in transition countries and the government policy to attract FDI. *Roman* and *Padureanu* [16, p. 1] have shown that developing and emerging countries' priorities in last decades shifted towards international capital flows, as a complementary way to finance domestic economic growth. In their opinion Central and Eastern Europe countries seek foreign direct investments as a critical component to solving the capital deficit problem. *Lemi* underscores that in economies where domestic private investment is very low and where foreign capital is crucial to increase production/productivity and transfer technology, policy makers provide different forms of incentives to attract FDI [12, p. 3]. *Harding* and *Javorick* explain that policy makers believe that FDI can contribute to a foster economic growth by bringing additional capital, creating jobs, and transferring new technologies and know-how across international borders. They also deduct from recent empirical evidence that FDI may also lead to positive productivity spillovers to local firms, particularly in the supplying industries [9, p. 3].

Sultan further indicates that FDI can promote exports of the host countries by enhancing the productivity and productive capacity of the host country by increasing capital stock, transfer of technology, managerial skills and upgrading the skills of the local workforce through training [21, p. 1]. He specifically stresses the importance of vertical FDI for export development:

"…If the motive for FDI is to reap the benefits of host country's comparative advantage so as to produce at relatively low cost, such investments are likely to promote trade and hence complement trade. Such FDI is called export oriented or vertical FDI" [21, p. 1].

United Nations Conference on Trade and Development in World Investment Report 2002 "Transnational Corporations and Export Competitiveness" confirms this, highlighting that FDI has both direct and indirect effect on host country's export. The direct effect refers to export by foreign affiliates themselves. The indirect effect includes spillover effect of multinational companies on local firms' export activities [22, p. 152].

Kutan and *Vuksic* consider that the positive supply capacity effects arise when FDI inflows increase the host country's production capacity, which, in turn, increase export supply potential. Such effects arise because the multinational company may have superior knowledge and technology, better information about export markets, or better contacts with the supply chain of the parent firm than local firms [11, p. 1]. The theory indicates that positive effects of inward FDI on a host country's exports may be expected when the host country and a home country have different factor intensities. In this case, the multinational enterprise (MNE) may outsource some segments of its production process to the host country and export these (intermediate) products back to the home country (as well as to other countries). Similarly, when the host country has a cost advantage and costs of trade are low (as compared to the trade costs of the home country), the host country may be used by the MNE as an export platform for serving its home market, as well as other markets.

Lemi [12, pp. 3-4] concurs that the positive spill-over effects are benefits generated through the transfer of technology, managerial and marketing skills, and the network effect of marketing (through reduced costs of marketing to penetrate foreign markets following the footings of the affiliate firms' exports). The impact of FDI on a domestic firm's productivity is crucial for the host countries as domestic infant industries are expected to learn from foreign firms. *Aitken* [1, p. 2], [1, p. 12] has tested and confirmed two effects of foreign direct investment on domestic enterprises. The author used a panel of more than 4,000 Venezuelan plants between 1976 and 1989, deducing that increases in foreign equity participation was correlated with increases in productivity for recipient plants with less than 50 employees, suggesting that these plants benefit from the productive advantages of foreign owners.

One immediate channel for positive export spillovers is by domestic firms learning from the export activities of foreign subsidiaries in the host country through information externalities. Subsidiaries may have easier access to information on foreign markets because they form part of a multinational enterprise. Exporting involves fixed costs, such as the establishment of distribution networks, creation of transport infrastructures, investment in advertising to gain public exposure, research about the foreign market to gain intelligence on consumers' tastes, market structure, competitors, regulations and so on. These may be lower for MNEs as they already have knowledge and experience of operating in foreign markets and can benefit from network economies and know-how of managing the international marketing, distribution and servicing of their products. This information could spill over to domestic firms [6, p. 4].

Sultan points out that the export of a country is directly affected by FDI in the following two ways. First, FDI converts import-substituting industries to exporters. In many of the import substituting products like home appliances and automobiles products, FDI combines its advanced technology with the available cheap labour of the developing countries and produces and exports the products at internationally competitive prices. Second, FDI leads to exports of new labour-intensive final products. By providing links to final buyers in different countries including the home country, FDI helps enhance exports of labour and technology intensive final products of the host countries [21, p. 2].

Metwally [14, p. 381] tests the relationship between FDI, export and economic growth in three countries, Egypt, Jordan and Omen, during the period from 1981 to 2000 by using a simultaneous equation model. The result suggests that the export of goods and services is strongly influenced by the inward FDI in these three countries. *Lipsey* demonstrates that one of the main contributions of inward direct investment in some cases has been to introduce new industries to a country or drastically change the composition of production [13, p. 5].

Similarly, *Castejon*, *Woerz* [3, p. 2] stress that the potential for positive spillovers does not solely depend on a country's overall absorptive capacity, but also on which sectors or industries in the economy receive FDI. Authors underline that the impact of FDI differs, depending on country specific absorptive capacity or stage of development as well as on the sectorial and industrial structure and allocation of FDI. *Ekholm et al.* [4, p. 5] highlight that effects of FDI on export will depend on the development level of technological and human capital of the domestic producers. One specific channel through which domestic firms may increase their productivity and export competitiveness in tradable goods and services industries is simply by copying the operations of the foreign producer. This may be facilitated by the mobility of workers previously trained in the MNE's affiliate. It is important to underscore that "FDI is not only from transnational companies; there are physical persons, investment funds or firms that are contributing to FDI flows. But transnational companies realize the majority of foreign direct investments especially by international mergers and acquisitions" [16, p. 2].

Castejon and *Woerz* arrive to an important conclusion that the effect of FDI in the same industry but in countries at different stages of development can be just as different as the effect of FDI in one country but in different industries. First of all, the results differ across individual industries. For a country's long-term prospects the type of industries receiving foreign capital is thus more significant than the aggregate amount of FDI flowing into a country [3, p. 8],

[3, p. 16]. They further caution that effects of FDI depend on many factors, notably the legal system, regulations, infrastructure, human capital endowments, and the complexity of the technology [3, p. 7]. If the host economy does not provide an adequate environment in terms of human capital, private and public infrastructure, legal environment and the like, many of the spillovers that may potentially arise from FDI cannot materialize [3, p. 8].

Serbia's apparel industry development

In the past, the apparel industry accounted for a significant portion of production and exports of Serbia, amounting to USD 890.5 million in 1991 or 19% of total exports and employing 118,647 people. Nonetheless, in the first decade of the 2000s, the competition from low labour prices in Asia, combined with dilapidated technology in Serbia as a result of a decade of conflict and economic sanctions in the 1990s, led to a sharp decrease in the Serbian apparel production and exports. The industry dwindled to a third its size during the last decade of transition in terms of employment (or almost a sixth compared to 1991), first as a result of the privatization and restructuring process and then with the World Economic Crisis (employment fell by 26% between 2004 and 2006, and by another 16,2% which is 3,926 jobs lost since 2008 [20, p. 180]. Serbian apparel industry now employs 24,142 people in 1,054 companies and it generated USD 406 million exports in 2010 and USD 478 million exports in 2011 and it is expected to generate further exports based on new foreign investments (see Table 1 and Table 2). The EU and the Western Balkans market almost exclusively absorb the apparel exports of Serbia, which is the case for all the countries in the region [19, p. 189].

There are two main products in apparel as identified by world trade statistics: *Product: 61 Articles of apparel, accessories, knit or crochet* and *Product: 62 Articles of apparel, accessories, not knit or crochet* (see Table 3). Serbia's exports represent only 0.2% of world exports for product 61 according to the most recent 2012 data, and its ranking in world exports is 51. Top five export destinations in this category are Italy, Germany, Romania, Bosnia and Herzegovina and the Netherlands. The most exported product in this category falls under code 6115 *Panty hose, tights, stockings & other hosiery, knitted or crocheted*. In 2010, the export in this subcategory was almost 190 million USD, rising to 227.8 million USD in 2012. Serbia's exports for this product (6115) represent 1.8% of world exports, ranking 10th in the world, and hence representing a niche export. Most of the hosiery production derives from Italian investment. In 2012 top five export destinations in this category were Italy, Russian Federation, Germany, Croatia and Romania [8].

Similarly, Serbia's export represents only 0.1% of world exports for product 62, and its ranking in world exports is 64. Top five export destinations in this category are Germany, Italy, France, Bosnia and Herzegovina and Montenegro. These five countries were the top export destinations in 2012. The most exported product in this category falls under HS code 6203 *Men's suits, jackets, trousers etc. & shorts*. In 2010, the export of this subcategory of product had value of almost 36 million USD, rising to 41.8 million USD in 2012 [8]. This was the key source of exports in the past and now part of LOHN business (two large public enterprises that still operate are Prvi maj that is mainly involved in LOHN and Yumco that also produces publicly procured uniforms, etc., in addition to SMEs in this sector), as well as bigger producers that have emerged since the 1990s, namely Mona, Zekstra, Luna, AMC, Nicolas, TFY, PS Fashion, Eminent, Beba Kids, Exit, Stig.

The World economic crisis has affected the Serbian apparel sector two-fold. On one hand, the markets have become even more demanding in terms of price and hence

Table 1: Number of companies in apparel sector in Serbia – 2010* (latest, 2012 data)

	Total	Micro	Small	Medium	Large
Total	83787	72191	8958	2129	509
Manufacturing	17282	13486	2668	894	234
Manufacturing Textile	486	398	62	22	4
Manufacturing Apparel	1054	770	214	56	14

Source: [19, p. 189]
* Micro = up to ten employees, Small = up to 50 employees, Medium = up to 250 employees, Large = more than 250 employees.

Table 2: Number of employees in apparel sector in Serbia

	2008	2009	2010
Manufacturing	360036	329491	345719
Manufacturing Textile	7412	6809	8178
Manufacturing Apparel	24142	22271	21743

Source: [19, p. 191]

cost cutting, with power purchase decreasing both in the immediate region and EU markets. As a result most companies decreased the number of staff and decreased salaries – or at least officially, returning in part to grey market with underreported staff and salaries. The cost pressure has rendered these companies even more sensitive to increased government charges, especially at local level. Many have stopped or decreased planned investments in enhanced capacities, new collections or certification, and almost all have reduced or even eliminated their marketing budgets. Clearly, such constraints are preventing companies from moving up the value chain to produce higher value added products. On the other hand, there is also a trend of some foreign, principally Italian garment producers relocating Serbia and although these are generally lower market brands they are contributing to employment and exports in the sector.

The key opportunity for Serbian apparel industry today is its flexibility to produce small orders efficiently, with short lead times due to proximity to markets and fabric producers and efficient transport and logistics linkages, coupled with a favourable trade regime (duty free access to EU, Central European Free Trade Area – CEFTA, etc.) and relatively low production costs for Europe of 0.09 EUR per

Table 3: List of products exported by Serbia
Product group: Apparel HS Code 61 and 62

Code	Product label	Exported value in 2008	Exported value in 2009	Exported value in 2010	Exported value in 2011	Exported value in 2012
'6115	Panty hose, tights, stockings & other hosiery, knitted or crocheted	203504	186971	189944	210318	227890
'6110	Jerseys, pullovers, cardigans, etc, knitted or crocheted	11625	9262	9851	16002	26435
'6109	T-shirts, singlets and other vests, knitted or crocheted	32646	33070	29824	28878	22402
'6108	Women's slips, panties, pyjamas, bathrobes etc, knitted/crocheted	17481	16932	17465	18240	18855
'6104	Women's suits, dresses, skirt etc & short, knit/croch	4857	3623	5195	9107	18081
'6107	Men's underpants, pyjamas, bathrobes etc, knit/croch	4969	4380	4803	6552	6732
'6112	Track suits, ski suits and swimwear, knitted or crocheted	3107	2886	1997	3256	5046
'6114	Garments, knitted or crocheted, nes	2641	1770	2159	2095	2078
'6117	Clothing accessories, knitted/croch	2556	1702	1237	1675	1800
'6106	Women's blouses & shirts, knitted or crocheted	2245	1365	3187	863	977
'6103	Men's suits, jackets, trousers etc & shorts, knit/croch	1262	1280	555	535	623

Code	Product label	Exported value in 2008	Exported value in 2009	Exported value in 2010	Exported value in 2011	Exported value in 2012
'6203	Men's suits, jackets, trousers etc & shorts	55753	38133	35774	46352	41868
'6204	Women's suits, jackets, dresses skirts etc & shorts	57693	34253	29770	38973	36535
'6212	Brassieres, girdles, corsets, braces, suspenders etc &parts	21433	14904	15126	17876	28646
'6206	Women's blouses & shirts	11886	10005	9788	12707	13972
'6202	Women's overcoats, capes, wind-jackets etc o/t those of hd 62.04	13717	7951	9708	13417	9403
'6205	Men's shirts	9979	6389	6129	8265	7837
'6211	Track suits, ski suits and swimwear; other garments	9175	11520	7910	8397	7345
'6210	Garment made up of fabric of heading no 56.02,56.03,59.03,59.06/59.07	54170	125657	3570	9784	6370
'6201	Men's overcoats, capes, wind jackets etc o/t those of hd 62.03	6865	4486	8308	7820	4705
'6208	Women's singlets, slips, briefs, pyjamas, bathrobes etc	4780	3316	2777	3322	3182
'6207	Men's singlets, briefs, pyjamas, bathrobes etc	5033	2763	2793	2994	2731
'6214	Shawls, scarves, mufflers, mantillas, etc	2333	1706	1900	2442	1639
'6209	Babies' garments and clothing accessories	1373	919	838	1256	968
'6215	Ties, bow ties and cravats	1937	843	635	890	679
'6217	Clothing accessories nes; o/t of hd 62.12	549	356	522	270	553
'6216	Gloves, mittens and mitts	165	161	177	268	227
'6213	Handkerchiefs	39	70	71	38	223

Sources: ITC calculations based on COMTRADE statistics until January 2012 and ITC calculations based on Statistical Office of the Republic of Serbia statistics since January 2012 [8]. Unit: US Dollar thousand

minute, with even lower rates reported by many surveyed companies of 0.06 and 0.007 EUR per minute. The average gross monthly salary in Serbia's apparel sector is 265 EUR [19, p. 62], with higher salaries of 350-400 EUR reported in knitwear subsector and lower than average salaries of around 200 EUR reported in other subsectors and South Serbia, i.e. Leskovac region), as confirmed by field research.

Moreover, Serbian companies' competitive advantages include design, full package and private label capabilities, as well as ability to offer collections to customers, with reliable, high quality production. The quality of apparel labour force is a current strength, but also a threat if the education system does not quickly reform to adapt to market needs. There are many local technical schools that have textile programs and universities that teach relevant skills such as design or chemical engineering but they have not aligned their curricula to market needs and education and industry have initiated some modest forms of cooperation to bridge this gap. Management skills for apparel industry could also be enhanced with further trainings as well as improved organizational structure.

While Serbia has traditionally cooperated with many foreign partners and has been one of the leading garment manufacturers for high selling brands (clients have included Zara, Mango, Benetton, Hugo Boss and many more), its goal should be to move from semi-finished production (cut-make-trim – CMT) to full package whenever possible (which has occurred in great part simply because CMT operations moved to Asia) and then to export of branded collections. One way to achieve this is to improve the quality of current apparel production, and another is to attract more foreign investment. The latter has already proved beneficial for Serbian exports since stockings now dominate exports as noted above, as a result of several Italian investments (Pompea, Golden Lady), as well as one local brand Rang. Another key investment is one of Benetton, which has contributed to greater employment, as well as expected future export growth.

It can be concluded that Serbia is a relatively inexpensive country for labour-intensive activities in Europe, especially apparel production. According to Organisation for economic cooperation and development – OECD, Serbia's productivity is also increasing as a result of privatisation, new investments and restructuring that led to shedding of a considerable amount of labour as noted above: "Assuming that output remains the same, Serbia can expect brisk productivity increases in the future in the textile and apparel industries" [15]. Increasing foreign investments in the sector, which bring new technology and skills, and hence higher productivity levels, further substantiate this optimistic forecast.

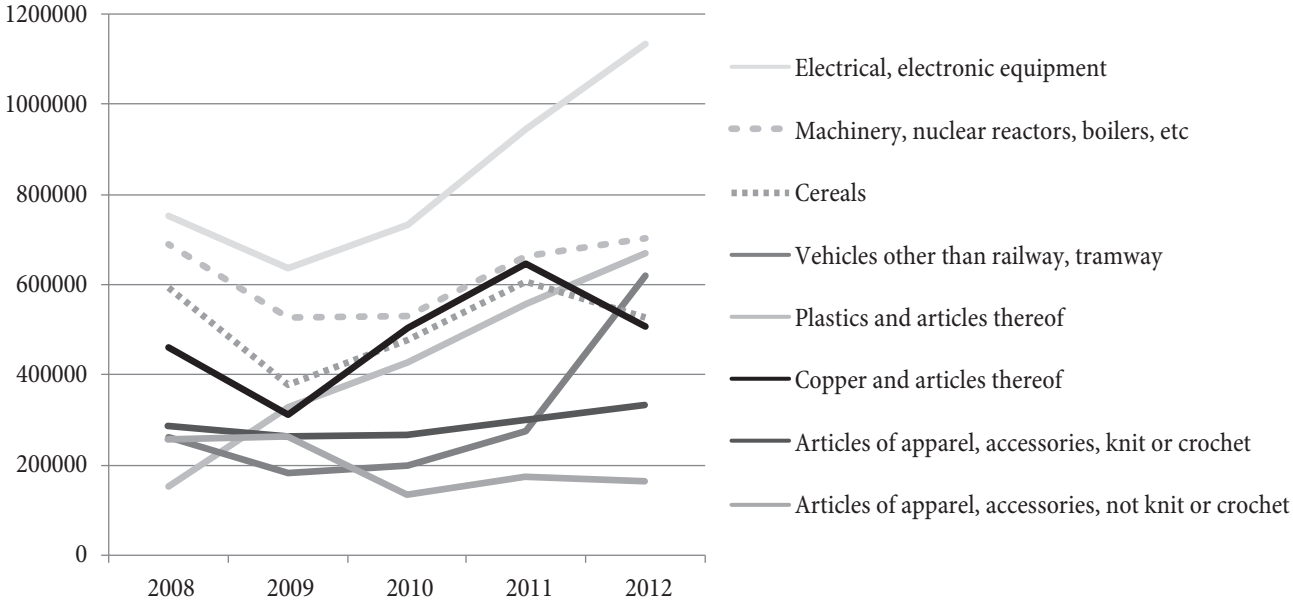
Production and exports figures

In 2012, apparel products (HS codes 61 and 62) in Serbia were the twelfth (61) and twenty-second (62) largest HS two-digit categories, representing 4.1% of total exports in 2010 and reaching USD 403.3 million. The country had a trade surplus in apparel industry of USD 131.6 million in 2010. In 2012 export for category 61 reached around USD 333.6 million, while export for category 62 in 2012 was around USD 167 million – totalling USD 500 million. This high export growth is attributed to foreign direct investment in this subsector of the apparel industry. Apparel, overall, has exhibited steady growth as shown in Figure 1.

Serbia's exports are almost exclusively to European countries. In 2012 the top destinations were in Europe and most were EU Member States, followed by CEFTA countries. The revealed comparative advantage of the apparel manufacturing industry in Serbia in 2007 was 2.6, indicating that the country has an advantage in apparel exports to the EU compared with the other Western Balkan economies. According to a World Bank study: "Serbia also appears to be improving its comparative advantage relative to the EU market: in the past few years the RCA [revealed comparative advantage] has gradually increased, indicating that apparel manufacturing firms are taking advantage of their advantages to supply European markets" [25].

As shown in Table 4, top five export destinations for category 61 in 2012 were: Italy, Russian Federation, Germany, Croatia, and Romania (see Figure 2). Italy is the primary export destination, and not coincidentally this is also the country of origin of the greatest FDI in apparel industry in Serbia. For category 62 top five export countries were: Germany, Italy, France, Bosnia and Herzegovina and Montenegro (see Table 5 and Figure 3).

Figure 1: List of products exported by Serbia



Sources: ITC calculations based on COMTRADE statistics until January 2012 and ITC calculations based on Statistical Office of the Republic of Serbia statistics since January 2012 [8]. Unit: US Dollar thousand

As succinctly concluded in a study done by USAID: The apparel sector had traditionally provided a large amount of Serbian jobs and exports. Prior to sanctions, Serbian companies produced garments for a wide range of US and Western European companies. Production was mostly conducted on a cut-make-trim (CMT) basis, where the materials are imported and only labour is added before re-export. Though Serbia was able to compete in these markets at the time, it was not high-value work. During the time of the sanctions, the global situation changed radically. With China becoming a major trading powerhouse, mass markets have been swamped with very-low-cost apparel. Serbia struggled to compete over the long run in this market. Jobs and exports dropped and firms were put at serious risk [23, p. 27].

Notably, since the trade liberalisation in 2001 it has become more profitable for many Serbian companies to import from Asia than to produce, which was even openly stated by one of the interviewed companies which shifted its business to less production and more imports although it had already made an investment into garment production. This explains in great part the disappearance of almost two thirds of the industry. On the other hand, imports are also a saturated business, and a competitive

Table 4: List of importing markets for a product exported by Serbia
Product: 61 Articles of apparel, accessories, knit or crochet

	Importers	Exported value in 2008	Exported value in 2009	Exported value in 2010	Exported value in 2011	Exported value in 2012
	World	288811	265166	267589	300140	333566
1	Italy	183901	169814	168663	170924	151262
2	Russian Federation	251	122	731	761	58446
3	Germany	48855	47162	45910	58481	53191
4	Croatia	2080	1869	1387	2815	14410
5	Romania	5359	7065	11438	17710	12514
6	Bosnia and Herzegovina	12044	10579	10044	8900	7896
7	Montenegro	11794	7524	5864	6648	7643
8	Netherlands	5689	5363	8275	12204	7020
9	France	3220	2438	4640	5026	3814
10	Slovakia	1023	70	298	2661	2893

Sources: ITC calculations based on COMTRADE statistics until January 2012 and ITC calculations based on Statistical Office of the Republic of Serbia statistics since January 2012 [8]. Unit: US Dollar thousand

Table 5: List of importing markets for a product exported by Serbia
Product: 62 Articles of apparel, accessories, not knit or crochet

	Importers	Exported value in 2008	Exported value in 2009	Exported value in 2010	Exported value in 2011	Exported value in 2012
	World	256879	263432	135796	175072	166884
1	Germany	50999	39247	39173	46269	44180
2	Italy	46719	26794	29458	36633	42523
3	France	20963	17294	14721	17720	18332
4	Bosnia and Herzegovina	11478	9506	10701	9668	9270
5	Montenegro	20866	10863	8890	8709	8736
6	Austria	6270	7773	7076	9503	8370
7	Slovenia	9990	7222	6759	7017	5609
8	China	731	1134	997	2598	2658
9	Poland	357	81	2367	4116	2504
10	Greece	4362	3825	2242	1585	2488

Sources: ITC calculations based on COMTRADE statistics until January 2012 and ITC calculations based on Statistical Office of the Republic of Serbia statistics since January 2012 [8]. Unit: US Dollar thousand

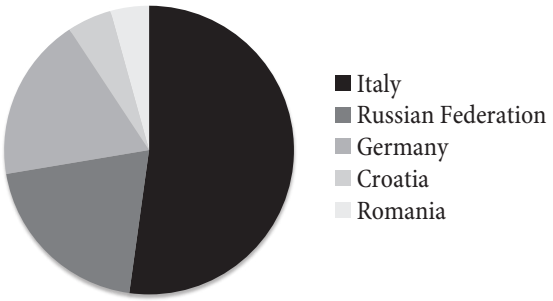
advantage of Serbia compared to Western Europe is attracting new investments and new source of growth for the apparel sector.

The value-added of the Serbian apparel manufacturing industry has been about 1% of the industry total since 2004, falling since 2008 as a result of the World economic crisis, and experiencing moderate growth in 2011[2], which can only be attributed to foreign investments in the sector (see Table 6 and Table 7).

Our research identified a number of obstacles that should be tackled to improve competitiveness of Serbian apparel industry. First, while the infrastructure in Serbia is relatively satisfactory, it should be improved to enable further cost competitiveness since the railways and Danube shipping are so dilapidated that they are not used, and while some parts of the country have better road infrastructure and access to cargo airports (especially in vicinity of Belgrade and Nis), Southwest part of Serbia has poor roads with a five-hour drive to Belgrade and the North of the country which connects Serbia with rest of European corridors. Energy is generally not an issue but there are electricity shortages that lead to waste, and some SMEs have been forced by the public electricity provider to invest into a transformer that becomes public property and is used for street lighting in addition to supplying electricity to the plant. The border management has improved, especially in the North allowing for efficient border crossing (once paperwork properly completed) but borders in the Southwest are particularly porous, allowing for unregulated trade, which is both a source of underreported exports and irregular imports.

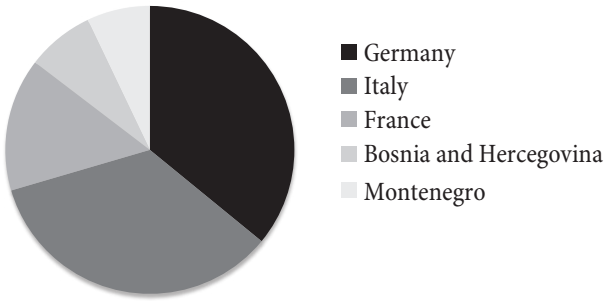
Serbia's small and medium size apparel producers complain of increasing and unpredictable government charges, complicated customs procedures (significant

Figure 2: Top five importing markets for product 61' exported by Serbia in 2012



Sources: ITC calculations based on COMTRADE statistics until January 2012 and ITC calculations based on Statistical Office of the Republic of Serbia statistics since January 2012 [8]

Figure 3: Top five importing markets for product 62' exported by Serbia in 2012



Sources: ITC calculations based on COMTRADE statistics until January 2012 and ITC calculations based on Statistical Office of the Republic of Serbia statistics since January 2012 [8]

Table 6: Industrial products in Serbia, 2010 and 2011

Manufacture of Textiles	Total 2010	Total 2011	Manufacture of Apparel	Total 2010	Total 2011
Cotton yarn, tons	1016	828	Leather clothing, thous. units	12	10
Woollen yarn, tons	33	24	Working clothing, thous. units	965	1021
Cotton fabrics, thousa sq m	8797	6019	Other clothing, thous. units	1579	2107
Woollen fabrics, thous. sq m	7	3	Underwear, thous. units	9534	8427
Household underwear, thous. sq m	966	834	**Hosiery, thous. pairs**	**200746**	**226395**
Carpets and floor coverings, thous. sq m	6430	5437			

Source: [19, p. 230]

amount of paperwork, difficulty in re-exporting procedures) and expensive access to finance. They acknowledge but do not seem to highly value assistance received in terms of grants for new employees distributed mainly in 2011 and inexpensive land available for those who decided to build plants in local industrial zones; instead, garment company managers are generally bitter and state to have insufficient support and increasing burden from the government. In terms of assistance, they are looking for good agents and direct contacts with buyers and distributors rather than general attendance in trade fairs without such prepared meetings. Certification does not seem to be required since most of the raw materials are imported (around 90%) and this is only an issue with some jeans producers whose buyers sometimes seek guarantees that environmental protection is ensured in processing, especially in dying, stone wash and sandblasting. As a result, most apparel producers consider quality standards too expensive and not worth the investment; several who have obtained ISO standard in the past do not plan to get recertified and only more successful companies developing own brands wish to introduce ISO.

At present, the apparel industry of Serbia has many unemployed textile workers, predominantly women, who lost their jobs through the privatization process. Sewers and technicians are educated in specialized secondary schools, evenly spread throughout the country while higher levels of education at specialized vocational schools and universities offer post-graduate education in related fields such as textile technology, fashion design, apparel technology, and management in the textile industry. Nonetheless, the surveyed companies claim that they need at least three months and often up to one year to fully train staff to use the new machinery (on-the-job training) and that there is a skills gap between what is taught in vocational high schools and what is required at workplace, mainly related to new technologies. The higher education also has some deficiencies, for instance producing designers who are artistic and creative but have insufficient knowledge of how the design could be used in the production process to produce a certain garment.

There are very few links between the education and business sector, with some positive examples emerging. For instance, one of the knitwear companies in Ada has established cooperation with the local technical high school, organizing seminars with a visiting lecturer from a German factory producing top knitwear machinery, who has been training both company employees and students based on new programs and machinery, with one machine physically located at the Ada technical high school. Another company from Novi Pazar has provided scholarships for two designers to attend the University of Novi Pazar, while the Novi Pazar jeans cluster ASSTEX also emphasizes cooperation with the local university since it has introduced programs relevant for this industry – textile and chemistry study programs (latter important

Table 7: Value added structure, 2010

	Value added at factor costs		Personnel costs		Gross operating surplus
	mil. RSD	%	mil. RSD	%	mil. RSD
Total	1.373,900	100	699,655	100	674,245
Manufacturing	399,389	29.1	229,170	32.7	170,219
Manufacturing Textile	4,533	0.3	3,448	0.5	1,085
Manufacturing Apparel	12,069	**0.9**	8,258	1.2	3,811

Source: [19, p. 186]

for the jeans dying process). Several companies from Arilje attested to have appreciated trainings for improvement of production supported by the German aid agency GIZ, while companies from Novi Pazar equally praised the trainings organized by USAID for the local apparel sector. Since such compliments are rare among managers of small and medium size enterprises in Serbia it could be concluded that the recognition of the value of these skills is genuine.

According to the Serbian Investment and Export Promotion Agency – SIEPA, the state of technological modernization in domestic textile enterprises is as diverse as the products themselves. High-level technological modernization is present in medium and large privately owned enterprises, which constantly introduce new machines and have begun introducing computer-aided systems for product design and production control. The machinery used is predominantly imported from Italy, Germany, and Japan and on average is less than 10 years old. The use of computerized systems for product manufacturing in small and medium sized companies is a positive sign of recovery and further promotes a dominant role of these companies in the overall industry. Socially owned enterprises, however, have machines, which are on average 10 to 30 years old. In these enterprises many operations within production lines are done manually [18, p. 9].

Surveyed companies in knitwear production and jeans production report a medium to high level of technology (for instance, many of the companies use Syrix, M1plus programming; large ZSK machines for embroidery, knitting machinery from Japan – Shima Sheik and German Stoll, German sewing machines, Turkish also, iron is Alberto Angelli, Gerber for jeans, etc.), and the same stands for new Italian investors producing stockings, while other apparel producers report low to medium level of technology. Interviewed companies across the board consider technology to be "very important" and new investments tend to be investments in technology, with some investments in new, enlarged production space and seldom investments made in other areas such as certification or promotion.

Figure 4 maps the Serbian apparel sector, accompanied by SWOT analysis presented in Table 8.

Figure 4: Serbian apparel sector mapping

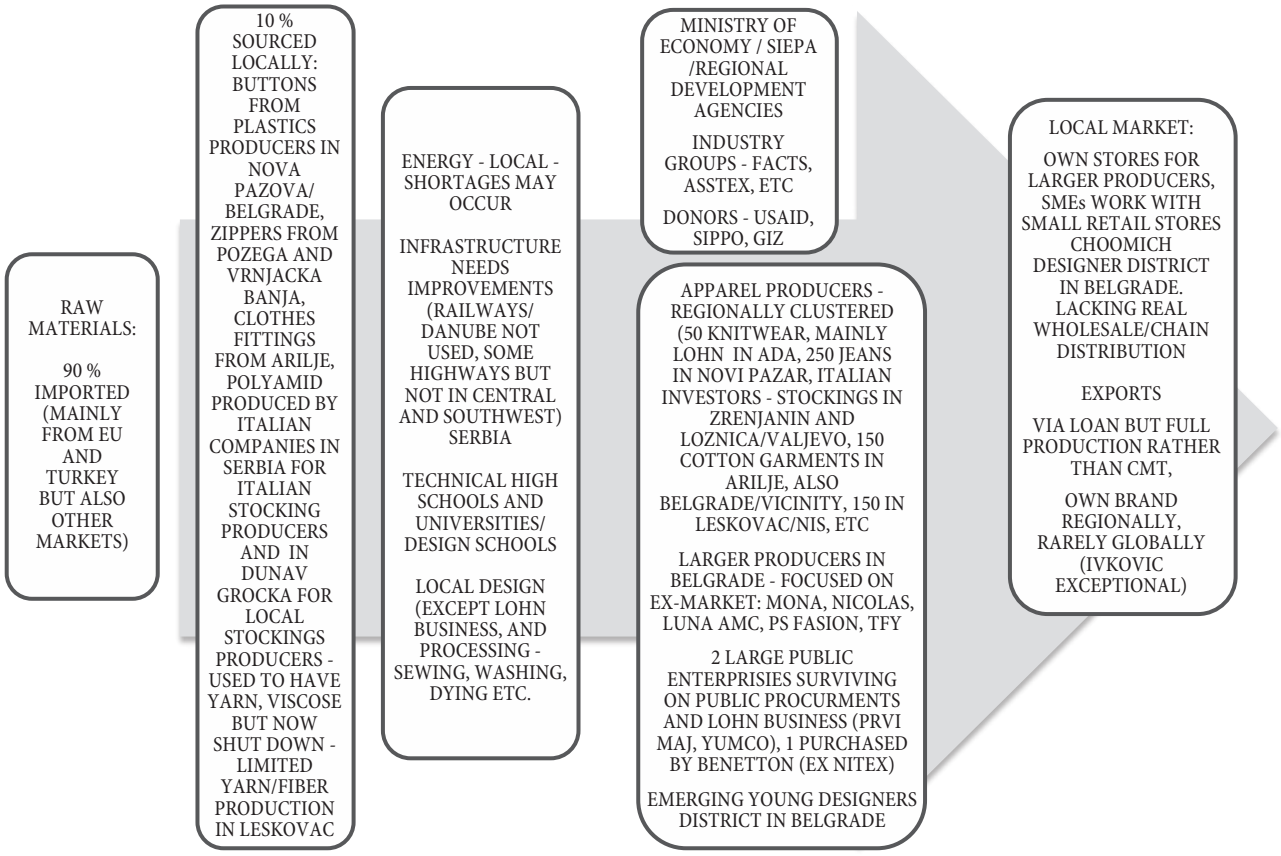


Table 8: SWOT analysis of Serbian apparel industry

Strengths	TREND
Low cost skilled labor force	↓
Quality manufacturing (tailor made not mass production)	–
Flexibility in manufacturing (small scale production possible)	↑
Competitiveness in price and controlled expenses – one production minute in EUR without transport costs – 0.08-0.09 (Weis Consulting Assoc. GmbH)	–
Strong tradition of textiles sector in Serbia	–
Geographic proximity to export markets (region and the EU) – quick delivery, transportation costs according to SIEPA 0.23 EUR per garment	–
Textiles agreement with the EU, CEFTA and a Free Trade Agreement with Russia, Turkey, etc.	–
Development of SME sector (some becoming more competitive and some closing after crisis)	–

Weaknesses	TREND
Gaps in pattern making and marketing – non existence of Serbian brand identity	↑
Highly dependent on imported fabrics (cotton, denim, wool) 90% of raw materials are imported, no or symbolic local production of quality raw materials, EURO 1 regulation demands – at least 70% of resources must be either local or EU origin	↓
High fixed costs (inadequate exploitation of large production capacity) higher than competitors	–
Serbia is not an EU member	↑
Government is slow to adapt to the needs of exporters	↓
16% large companies in social ownership-unprepared to compete with private companies (Jefferson Institute) [10]	↓
State-owned companies have old machinery 10-30 years old, too many employees, inefficient, price is not competitive, need for reconstruction and restructuring (Jefferson Institute) [10]	–
Low profit margins	↓
Rigid Labour Law	↓
Lack of Euro customs certification/skills in many companies	–
Expensive financing	–
Low level of cooperation both within industry and with government; low donor activity	–

Opportunities	TREND
Export to EU market (already exporting 70%) and Russia, as well as other markets with free trade access such as Belarus, Kazakhstan, Turkey…	↑
Secondary sources of high quality apparel for European retailers	–
Margins can be higher if logistics and quality needs can be met for full package market at the higher end	↑
Wage growth in central and eastern Europe countries increased prices in textile and garment – opportunity for Serbia	↑
Tax incentives and government funds to support industry growth, government incentives for exports	↓
Strategic partnerships with EU companies – easier access to market, better distribution channels	↑
Increased FDI in Serbian apparel industry	↑
Additional knowledge relative to design and more links between producers and designers	↑
Competitiveness through better operational procedures (some trainings held with support of donors)	↑
Branding strategies	–
Implementation of new technology in order to enhance productivity, quality and sophistication	↑
Improved access to finance can become a source for growth	↓
Better country branding and more assistance with marketing of Serbian garment brands is key to higher value added exports	–
More open public procurement could be a source of growth	–

Threats	TREND
Fewer foreign investors in textiles and apparel than in other major industries	–
Grey economy – more than 2,000 unregistered micro garment companies – mostly operating as home businesses. (SIEPA)	↓
Insufficient business linkages with foreign companies	–
Expensive commercial lending and red tape	↓
Strong global competition and continued imports of low quality and price products into domestic market (Turkey, China)	–
Labour cost increase	↓
Increased burden in terms of various government, especially local charges	↓
Some garment producers are relying on one partner and need to diversify to hedge risks	–

↑ = IMPROVING – = UNCHANGED ↓ = WORSENING

Foreign direct investment in Serbia's apparel industry

Foreign Direct Investment (FDI) inflows into the apparel industry in 2007 were EUR 4.8 million, or about 3% of total FDI inflows into Serbia, down from a peak of almost EUR 8 million in 2006. Total FDI inflow in Serbia from 2003 to 2011 showed that FDI reached its peak in 2006 with 3.4 billion EUR investments in that year (see Figure 5). Henceforth the FDI inflow decreased for four consecutive years. The first recovery and increase was seen in 2011 when FDI were around 2 billion EUR. The year-on year growth rate indicates that FDI inflows into the apparel manufacturing industry are increasing: the compound annual growth rate (CAGR) between 2004 and 2007 was 53%, and this trend continued after 2009.

The largest foreign investors in textile industry are: Calzedonia, Pompea, Golden Lady, Falke and Benetton.

In document "Foreign Investments in Eastern Serbia 2011" [17], it is cited that Italy invested around 2.3 billon EUR in Serbian textile industry, thus ranking first among foreign investors in Serbia's textile industry. Germany is on the second place with around 780 million EUR of investment in the sector.

If we analyse FDI inflow in the sector of "textile, apparel, leather and related products" we find that around 160 EUR million was invested in Serbia from 2007 to 2011 (see Figure 6). FDI in this sector peaked in in 2007 (54 million EUR), decreasing in 2008-2010 but then rising again. In 2011, FDI in textile industry amounted to 21.8 EUR million [7, p. 124].

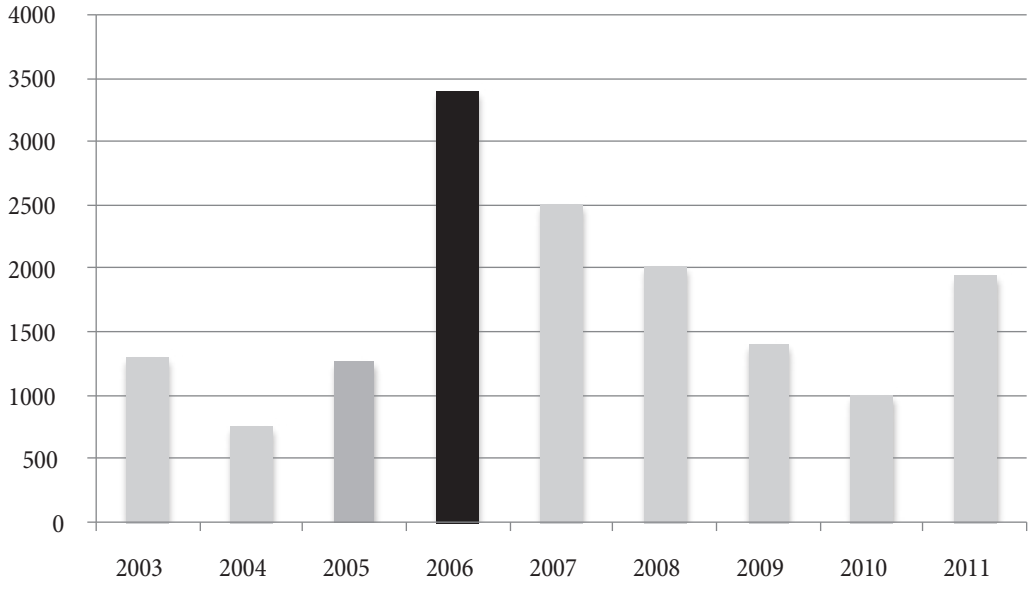
If we juxtapose the FDI in Serbia's textile industry to export of apparel, we see a strong correlation, presented in Figure 7.

Conclusion: Apparel competitiveness prospects for Serbia

OECD considers the apparel-manufacturing sector to be "undeniably attractive in the Western Balkans. This region is increasingly becoming a key location for the production of fast fashion and replenishable products for European markets and is of interest retailers and buyers looking to spread their sourcing activities across several geographic areas to reduce political and economic risk. For these reasons, the region can be expected to have a strong industry for quite a few years into the future. An advantage for this sector in the Western Balkans is its strong regional presence, including high export values, respectable levels of foreign direct investment and a large percentage of output, as well as competitive labour costs and close proximity to EU markets" [15, p. 50].

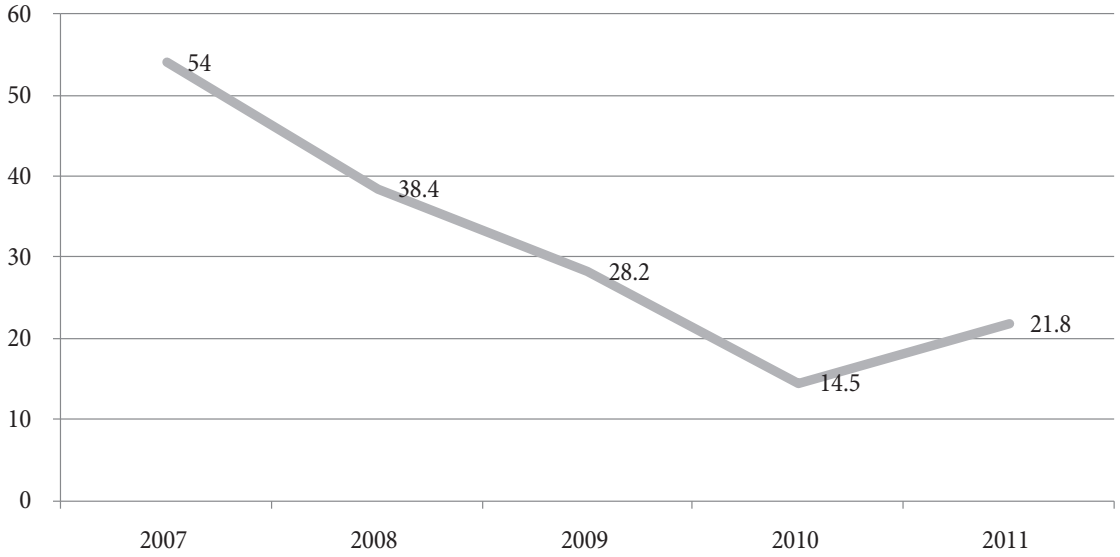
We concur with the World Bank consideration that, because of the close economic linkages, the Western Balkan

Figure 5: FDI inflow in Serbia in EUR million



Source: [7, p. 124]

Figure 6: FDI inflow by economic activity: Textiles, apparel, leather, related products, 2007-2011 (EUR million)



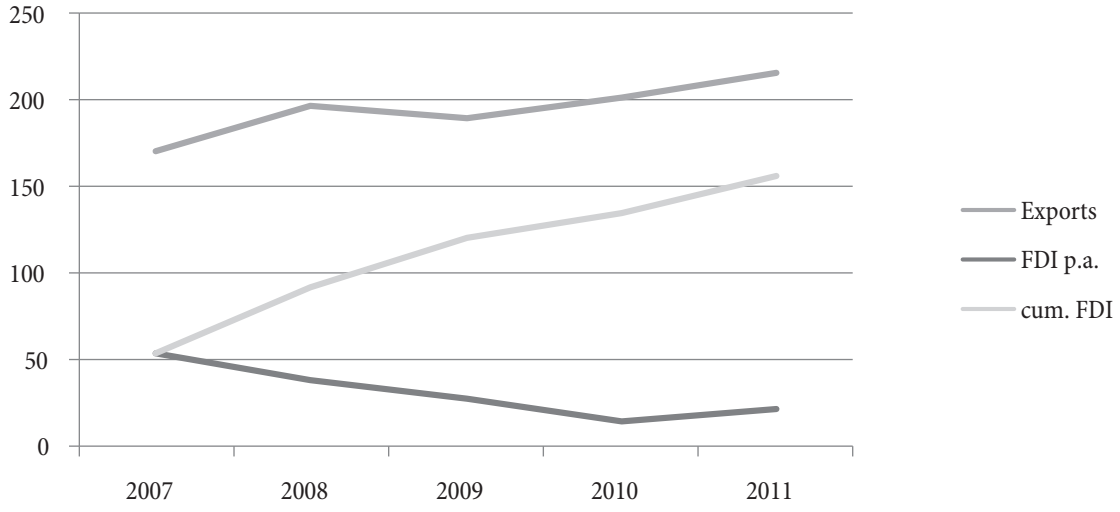
Source: [7, p. 124]

trade is highly correlated with developments in the EU. In Serbia, "in the first quarter of 2013, exports, driven by FDI and improved EU economic performance, have recovered noticeably, bringing hope for a better external position in 2013", and "although the region's exports to EU as a whole fell, Serbia's trade with the EU went up" [24, pp. 8-9].

According to Ernst & Young's attractiveness survey Europe 2013, "Coping with the crisis, the European way," Serbia is ranked 11th by number of FDI projects and 6th by jobs created:

Serbia performed well in terms of FDI in 2012, attracting 78 projects, up 16.4% year on year. FDI created 10,302 jobs in the country, which ranked sixth in Europe for FDI job creation. Serbian projects are among the most labor intensive in Europe, creating 132 jobs each on average. Nearly 90% of projects in Serbia came from European companies. Italian firms provided more than half of the resulting jobs, and companies from Germany and Austria were also big investors, mostly in manufacturing, with automotive components and machinery and equipment the leading sectors. Italian carmaker Fiat SpA announced plans for a €1.3b plant in Serbia, employing 2,400 workers, and applauded Serbian government participation in the joint venture and its provision of incentives, including tax breaks, infrastructure and training [5, p. 17].

Figure 7: FDI in textile industry and export of category 61', 2007-2011 (EUR million)



Source: wiiw Database on Foreign Direct Investment in Central, East and Southeast Europe, 2012, Short-lived recovery (analysis by authors of this article)

One more interesting data from survey is investors perceived attractiveness of one location versus actual number of FDI projects. The results show that only 1% of interviewed investors (808 international decision makers) from survey picked Serbia as the most attractive destination in CEE but in practice Serbia scooped 11% of CEE FDI projects in 2012. As stressed in the survey: "This glaring mismatch suggests these countries (Serbia and Turkey – perception 2%, actual number 13%) [5, p. 21] face perception problems among foreign investors. The governments of Turkey and Serbia may need to do more to educate business leaders about the opportunities their countries offer."

To conclude, this article confirms a strong correlation between foreign direct investment and export growth based on an analysis of the Serbian apparel industry, and specifically the subsector of "panty hose, tights, stockings & other hosiery, knitted or crocheted". It further identifies obstacles and prospects for development of the Serbian apparel industry, highlighting the need for improved branding in addition to continued investment incentives and policies aimed at advancing infrastructure, education and general business climate.

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COMPETITION IN INSURANCE MARKETS OF THE REGION OF FORMER YUGOSLAVIA

Konkurencija na tržištu osiguranja u regionu bivše Jugoslavije

Abstract

Competition is the essence of success [20], suggests *Michael Porter*, a leading scientist in the field of business strategies and competitiveness. According to *Porter*, competition defines validity of activities undertaken by specific companies which include innovation, culture, or practical implementation. Analysis of competition and competitive position is crucial for market success of each insurance and reinsurance company. In this paper, we focus to the analysis of the competition in insurance markets in the countries of former Yugoslavia. The main conclusion is that without an enhancement of competitive advantage, driven by improvements in productivity, innovation and costs, insurance companies will not be able to achieve successful business performance in the future. Improving competition in not only in the interest of individual insurance companies, but also of the market as a whole and thus the insured, given that the improved competition brings improved quality of service and lower insurance premiums.

Key words: *competition, market, insurance, former Yugoslavia*

Sažetak

Konkurencija je suština uspeha [20], upućuje *Majkl Porter*, vodeći naučnik u domenu strategije kompanija i konkurentnosti. Konkurencija po *Porteru* određuje ispravnost aktivnosti koje preduzima konkretna kompanija, a koje uključuju inovacije, kulturu ili primene u praksi. Analiza konkurencije i konkurentske pozicije ključna je za tržišni uspeh svakog osiguravajućeg i reosiguravajućeg društva. U radu se fokusiramo na analizu konkurencije na tržištima osiguranja u zemljama regiona bivše Jugoslavije. Osnovni zaključak je da bez unapređenja konkurentske prednosti, vođene unapređenjima u produktivnosti, inovacijama i troškovima, društva za osiguranje neće moći ostvarivati uspešno poslovanje u budućnosti. Unapređenje konkurencije nije samo u interesu pojedinačnih osiguravajućih društava već tržišta u celini, a time i osiguranika, s obzirom da unapređenje konkurencije donosi unapređen kvalitet usluga i niže premije osiguranja.

Ključne reči: *konkurencija, tržište, osiguranje, bivša Jugoslavija*

Introduction

In the last ten years, the impacts of the external environment have more than ever affected the activity of insurance companies, the manner in which operations are carried out, and the manner in which they will be carried out. If we look at competition as a market game in which the degree of competitive struggle depends on the number of market participants and their relative market power, it is clear that the size of the available capital to cover the risk and the degree of capitalization of individual insurance companies, as well as liberalization and deregulation, have the most direct impact on the competition and thus on the insurance market. In the region, a greater interest in securing competition in all markets, including insurance market, occurred together with privatization and deregulation that followed the overall efforts to transform the socio-economic system from a planned and orchestrated to a market economy system. Also, the trend of liberalization is present, i.e. opening of local, national markets to foreign competitors. Although in an uneven degree, there are foreign competitors in almost all countries of the region, which has been particularly pronounced in Slovenia since its accession to the European Union, and this year a similar trend can be expected in Croatia after its accession to the European Union.

The development of the insurance market is characterized by numerous indicators such as the absolute size of the insurance premium, the insurance premiums to gross domestic product and per capita, the share of life insurance

in the structure of total market premiums and the like. For these indicators to be at satisfactory level it is necessary that certain conditions are being fulfilled which, in the insurance market, encompass the availability of adequate capacity to accept risk, diversified range of insurance coverage and continued improvement in compliance with European and international standards. The fulfillment of these requirements is greater in the insurance markets where there is a higher level of competition. In view of these relations, the paper builds upon the basic premise that competition is one of the key factors determining the development of the insurance market. Our research in the paper is directed at analyzing the issue of competition in certain markets in the region. We direct our attention to the quantitative analysis of competition in order to indicate the relevance of the findings in relation to the thesis pointing to a significant impact of the competition in the insurance market on its development.

Competition in insurance market

Competition is the essence of success and failure [20], suggests *Michael Porter*, a leading scientist in the field of business strategies and competitiveness. According to *Porter*, competition confirms validity of activities undertaken by specific companies which include innovation, culture, or practical implementation. Analysis of competitors and competitive position is crucial for market success of each insurance and reinsurance company. Competition level is often measured by the number of market participants and influences the amount of insurance premiums and the quality of insurance coverage and related services. The low level of competition in the market means high concentration, which is a source of high profits. Research shows that in markets with low level of competition insurers have greater opportunities to achieve high profits [1], [3], [2], [12], [19]. Profits higher than in more competitive markets are the main reason for the lack of interest of insurers for greater market competition. Therefore, the role of the state is necessary, as it should control its policies and contribute to the improvement of competition.

Open and fair competition among market participants is good for both consumers and businesses. More competition means more choices and greater value for consumers. Also, more competitive business environment provides the basis for the exploitation of opportunities for advancement and achievement of business success on a level playing field. Open and healthy competition that is in the interest of both the insureds and insurance companies should be the basis of regulations on competition in the insurance market. For the society as a whole it is important that the insurance market operates on the fair grounds and recognizes the need to prevent monopolistic activity, or any activity that would be directed towards limiting or preventing competition in the insurance market. Perfect competition in the insurance market characterizes the conditions in which there is no manifestation of market imperfections [7]. However, in the market there are not always a sufficient number of subjects of supply and demand, complete freedom of entry and exit from the market, complete uniformity of product or full information symmetry. These limits require state intervention, but only if they have been realized.

The interest of the state that is sought to be achieved with insurance regulation is to provide insurance at an affordable price, the protection of policyholders, the confidence that insurers will pay compensation when damage occurs and to provide the framework for insurers to be effective [9]. In market conditions prices are determined by the law of supply and demand. However, completely free market mechanisms could not be established without fair insurance premium or premium high enough to cover costs and provide a reasonable profit, but also low enough to be accessible to policyholders. Too high insurance premiums that may arise in the case of a monopoly market are very negative for the insured, since such premiums could prevent the accessibility of insurance. However, the existence of the too low insurance premium could result in insolvency or inability of insurers to pay losses when they occur. State intervention in order to ensure fair premium is required and it is achieved in two ways: 1) indirectly, through solvency regulation that prevents uncontrolled and unfair competition, and 2) directly, by granting tariff premium. Regulation of market practice is focused on preventing insurers to set inadequately low insurance premiums compared to competitors, to set

different premiums for different policyholders in order to attract them to conclude a contract and to persuade insureds to leave the existing policyholders, as well as on preventing false advertising, while a special importance is given to the prevention of monopolistic market.

Thanks to liberalization, deregulation, privatization and de-monopolisation of national markets in many countries, including the countries of the former Yugoslavia, there is a rapid development of the insurance. Liberalization expressed through the removal of barriers to entry for foreign insurance companies in national insurance market has improved the competitiveness and development of regional insurance markets, particularly in the area of life insurance. Foreign insurers have brought new products, advanced techniques of risk management, advanced techniques of assets and liabilities management [16] and they had a special incentive in the field of life insurance whose rapid growth was recorded after the liberalization of national markets.

Competition and development: The insurance market in former Yugoslavia region

The link between competition level and the development of insurance markets in the countries of former Yugoslavia basically follows the general rules that indicate that more developed insurance markets occur mainly as a result of high competition. Below we analyze the development of insurance markets in the region and compare them with leading insurance markets, pointing to the competition in the insurance market in the region.

Two indicators have been commonly used as a measure of insurance market development in different countries – indicators of insurance density and insurance penetration. Insurance density indicator is essentially the average annual insurance premium per capita. This ratio is an indicator of spending on insurance by the average resident of a country that in the most appropriate way demonstrates the importance of purchasing insurance in the individual national economies. Indicators expressed in national currencies are usually denominated in euro or dollar, which may result in uneven measurements, depending on exchange rate movements, as well as on chosen day. Insurance penetration indicator is the share of insurance premiums in GDP, or, in other words, it is the ratio of annual insurance premiums to gross domestic product. This ratio implies the relative importance of insurance in a given national economy and is commonly used as an approximation of the demand for insurance. However, there are limitations of this information as it ignores the specifics of individual insurance markets and national economies, such as the existence of different levels of insurance premiums in different countries and the differences in the method of calculation of gross domestic product and its structure.

Table 1: Insurance premiums per capita in 2011 in the countries in the region of former Yugoslavia vs top ten countries in terms of premium per capita (in EUR)

Global ranking	Country	Total premiums	Life insurance	Non-life insurance
1	Switzerland	6111.9	3344.4	2767.5
2	Netherlands	5036.9	1410.7	3626.2
3	Denmark	4359.7	3054.6	1305.0
4	Japan	3923.5	3114.8	808.7
5	Finland	3681.4	2938.1	743.3
6	Luxembourg	3365.1	1868.2	1636.1
7	Sweden	3441.5	2611.8	829.7
8	United Kingdom	3416.3	2567.9	848.4
9	Norway	3273.7	2005.0	1268.6
10	Ireland	3243.1	2408.4	834.8
29	Slovenia	1071.6	312.8	758.9
47	Croatia	298.2	79.3	219.0
67	Serbia	82.9	13.4	69.6
	Bosnia and Herzegovina	65.7	10.8	54.9
	Macedonia	54.9	3.9	51.0
	Montenegro	104.3	14.7	89.7

Source: [5], [7], [8], [9]

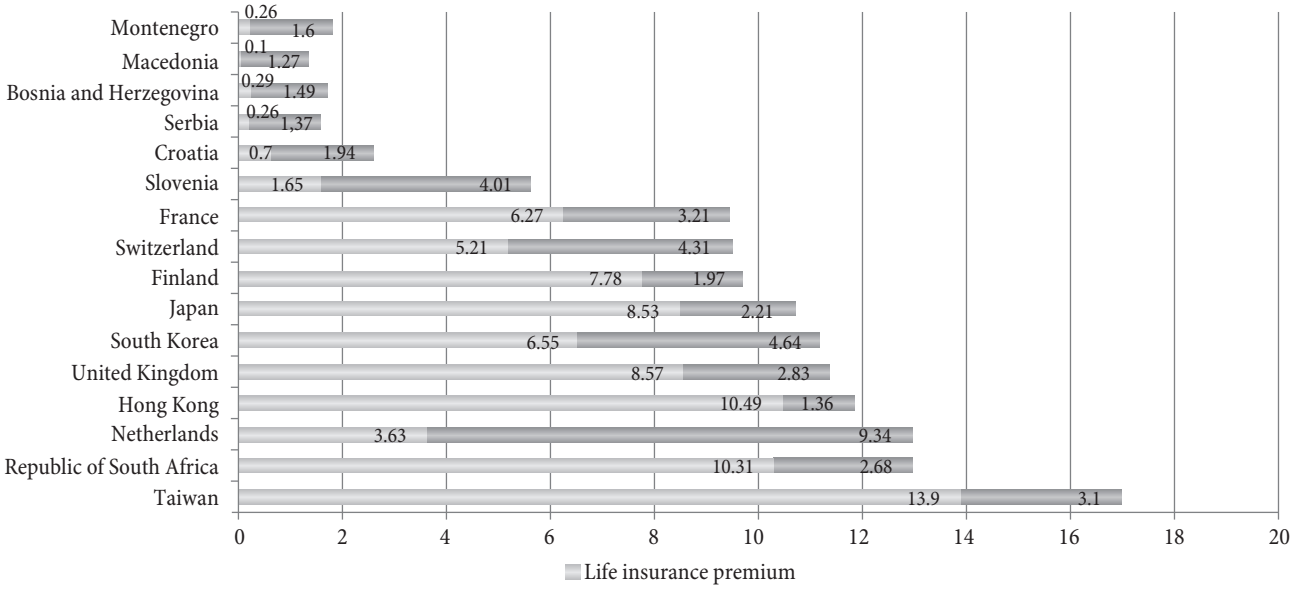
Indicator of insurance density for the ten countries with the highest premium per capita is given in Table 1. This table gives an overview of insurance premiums per capita, separately for the total premiums and for life and non-life insurance, for each country in the region of former Yugoslavia. Data are denominated to the value of EUR and dollar at 31.12.2011.

As can be seen from Table 1, the region is largely behind the highly developed countries in terms of the size of the total insurance premium per capita. Particularly noticeable is lag in life insurance. In four countries of the former Yugoslavia life insurance premium was less than 15 euros per capita and this explains why this type of insurance was less influenced by the financial crisis [18]. Also, it is noticeable that in the top ten countries ranked by the amount of the insurance premium, eight are members of the European Union.

Figure 1 shows share of insurance premiums in gross domestic product. Share of total, life and non-life insurance premiums in GDP was most pronounced in Taiwan, South Africa and the Netherlands. The key impact of the high penetration of insurance in all of the ten leading countries, except the Netherlands, provides life insurance. In the region, with the exception of Slovenia, it was recorded relatively little, almost negligible share of insurance premiums in gross domestic product.

We believe that the key reason for underdevelopment of insurance in some countries is due to the fact of its general and private insurance underdevelopment. In the former socialist countries, including countries of the former Yugoslavia, private insurance was not developed until the early nineties of the twentieth century. The causes are numerous. We believe that the key reason for the underdevelopment of private insurance market is the relict of the past low demand for insurance coverage. At a time when the social insurance was the widest coverage of pension and health insurance, the demand for private insurance was almost nonexistent. In the circumstances when assets were essentially in state ownership or without property owner, as in the case of countries of the former Yugoslavia, while personal types of insurance were provided by state, private insurance was not necessary. Insurance coverage for motor vehicles was dominant, for example, in the former Yugoslavia, exactly because of the fact that it was mandatory. However, even this segment of the insurance did not have a private character, given that most of the insurance companies were a state or public property. Also, in some countries there was no trust in the institution of insurance; in some countries there was a problem with the stability of the currency, while in others there was no adequate staff. We believe that inadequate competition was the crucial reason for the underdevelopment of insurance

Figure 1: The comparison of premium share in GDP in the region of the former Yugoslavia and in leading 10 countries in 2011 in %



Source: [5], [7], [8], [9]

market, as state monopolies were the only insurers. Starting from the fact that their property was in the state's hands and that the possibility of entry of foreign insurers did not exist, nor was there a possibility of establishing private insurance companies, competition was very low, which resulted in underdeveloped insurance supply and relatively high premiums. With the gradual economic development, privatization, deregulation, liberalization, the gradual increase in prosperity and competitiveness of the insurance market in these countries has happened.

Competition measured by market share of insurance companies in the region of former Yugoslavia

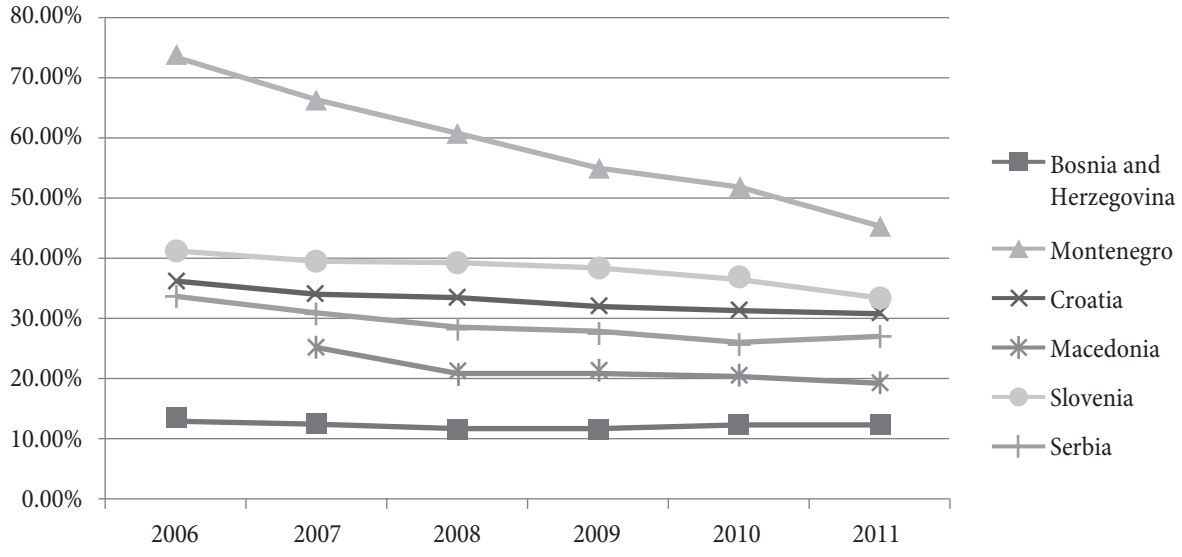
The degree of competition in the insurance markets can be measured in different ways but usually: 1) by the absolute number of companies on the market, 2) by the relative participation of several leading companies (often 3 to 5), and 3) by using Herfindahl-Hirschman index (Herfindahl-Hirschman Index).

Concentration rate is most often determined by a number of companies in a particular sector. Concentration rate of the leading market participants is usually defined as the percentage of the total supply in a sector. Analogously, the rate of concentration of eight to ten market participants is usually defined as a percentage of the total supply in a particular sector. In the case of pure monopoly, concentration ratios of leading two to five, or eight to ten companies, will reach 100% of market share. In the case of perfect competition this rate approaches zero. Therefore, in the case of pure theoretical monopoly, the rate of concentration of the leading company would be 100%, as the company would provide a complete offer of products or services in a particular sector.

The degree of market concentration is first analyzed in terms of the movement of the market share of the leading and dominant insurance company. It is common that if a company has a market share of 40% or 50% it can be considered absolutely dominant in a particular market. Market concentration presented by trends of the market share of the leading insurance company for the countries of the former Yugoslavia in the period from 2006 to 2011 is shown in Figure 2.

According to trends in the market share of the dominant insurance company, the insurance market in Bosnia and Herzegovina is the least concentrated and the insurance market in Montenegro is the least competitive. During the period the dominant insurance company in Bosnia and Herzegovina was "Sarajevo osiguranje". The share of the company during the period decreased slightly, from 13.72% in the 2006 to 12.78% in the 2011. Although "Lovcen", the dominant insurer in the insurance market in Montenegro, had a significant share over the period, the change was

Figure 2: Trends in market share of the dominant insurance company in countries of the region of the former Yugoslavia in the period 2006-2011



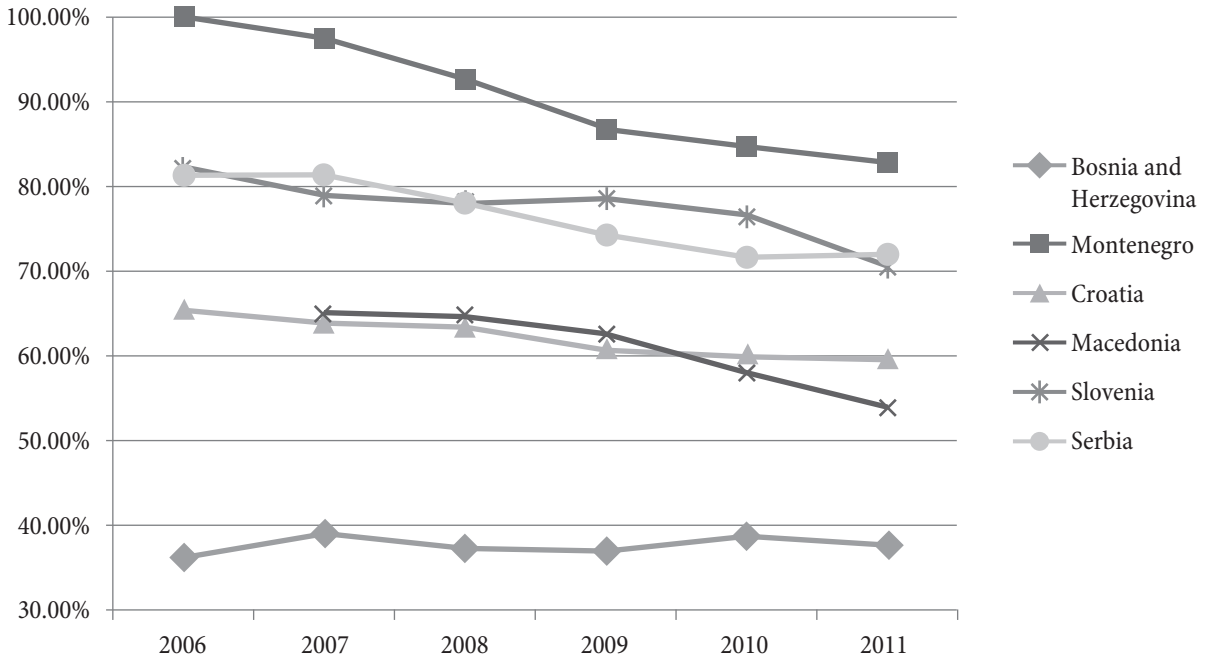
Source: authors' calculations based on [4], [7], [8], [9], [10], [14], [15], [21]

much more drastic than in Bosnia and Herzegovina. From a position of fully dominant market share of 73.70% in the 2006 the share of "Lovcen" in the insurance market in Montenegro decreased by almost 30%, i.e. it was 45.38% in 2011. In Croatia, the dominant insurance company "Croatia osiguranje" partially lost its leading market share. The share of the insurer in the insurance market in the course of the period declined from 36.08% to 30.54%. The situation was similar in Macedonia. Leading insurance company "Vardar osiguruvanje" reduced its market share from 25.45% in 2006 to 19.26% in 2011. In Slovenia, the dominant insurance company "Triglav zavarovanje" also reduced its market share (from 41% to 33.21%), but relatively less than was the case in Montenegro, Croatia, Macedonia and Serbia. Finally, in Serbia, the market share of the dominant insurance company also declined during the period. Market share of insurance company "Dunav osiguranje" was reduced from 34.23% in 2006 to 26.93% in 2011.

The degree of market share and degree of market competition can be measured by the participation of several leading companies (usually 3 to 5 companies in the market). Figure 3 presents the share of four leading insurance companies in insurance markets in the countries of former Yugoslavia.

As can be seen from Figure 3, all insurance markets in the region are highly concentrated, with the exception of the insurance market in Bosnia and Herzegovina, where the share of four leading insurance companies is less than 50% of the total market share. As with the representation of participation of leading insurance company, the specific situation of an insurance market is in Montenegro where the share of the top four insurers in the total premium was very high. This situation is primarily the result of small number of companies at the beginning of the observed period. Although the changes of market concentration in the region were relatively small, over the period the decrease of market concentration was noticeable in all markets, with the exception of the insurance market in Bosnia and Herzegovina. The share of the top four insurers in Bosnia and Herzegovina between 2006 and 2011 increased from 36.08% to 37.81%. In Montenegro, the share of four leading insurance companies from 99.84% in 2006 decreased to 82.64% in 2011. In Croatia, the share of four leading insurers decreased from 65.50% in 2006 to 59.69% in 2011. In Macedonia, the participation of the four leading insurance companies decreased from 64.80% in 2006 to 53.69% in 2011. In Slovenia, the market share of the leading four insurance companies declined

Figure 3: The competition level in the insurance markets of the countries of former Yugoslavia measured by the share of the four leading insurance companies in the period 2006-2011



Source: authors' calculations based on [4], [7], [8], [9], [10], [14], [15], [21]

from 82.20% in 2006 to 70.38% in 2011. Finally, a similar situation happened in Serbia where the share of the four leading insurance companies decreased from 81.16% in 2006 to 72.10% in 2011.

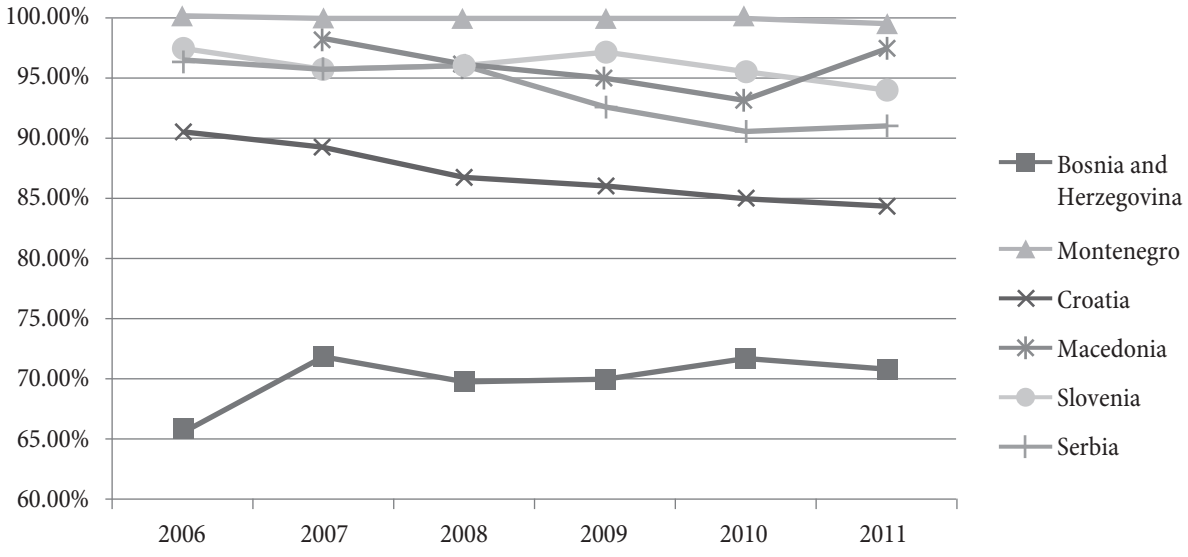
The degree of market concentration is further analyzed in terms of movement of the market share of the top ten insurance companies. The results of the movement of the market concentration of the top ten insurance companies for the period from 2006 to 2011 are demonstrated in Figure 4.

As with the two previous indicators Figure 4 shows similar trends in the case of the insurance market in Croatia, Macedonia, Slovenia and Serbia, but not in the case of the insurance market in Bosnia and Herzegovina and Montenegro. The reason lies in the fact that in Bosnia and Herzegovina came to a reduction in the number of companies, while in Montenegro during the part of the observed period the total number of insurance companies was below ten, the reason why the top ten insurers essentially made total commercial capacity. Top ten insurance companies in the insurance market in Bosnia and Herzegovina during the period increased its market share from 65.87% in 2006 to 70.75% in 2011. As the two previous groups of indicators, the indicators of participation of the top ten insurance companies in the region point to the lowest level of competition in the insurance market in Montenegro, where the share of the top ten insurance companies during the entire period was in effect at the level of about 100%. The share of the top ten insurance companies in the insurance market of Croatia was reduced from 90.34% to 84.43% between 2006 and 2011. In Macedonia, the share of the top ten insurers was reduced from 98.06% in 2007 to 97.15% in 2011, which represents a significant change in comparison to 2010, when the market concentration of the top ten insurance companies in this market totaled 92.80%. In Slovenia, the top ten insurance companies reduced the market share of 97.30% in 2006 to 94.05% in 2011. Finally, the market share of the top ten insurance companies in Serbia was decreased from 96.49% in 2006 to 90.82% in 2011.

Competition in insurance markets in the region of former Yugoslavia measured by Herfindahl-Hirschman Index

Herfindahl-Hirschman Index measures market concentration degree by the market share of each insurance company, so this index considers all companies and not only the leading insurers. Attitudes regarding the use of specific indicators are not uniform. Some believe that the Herfindahl-Hirschman Index (HHI) is more comprehensive [6] than other measures while other believe the opposite [11]. Without getting into a detailed consideration of the advantages and disadvantages of this index, we believe that definitive

Figure 4: Market concentration as a measure of the competition of the insurance market in the countries of the former Yugoslavia during the period 2006-2011 measured by the share of the top ten insurance companies



Source: authors' calculations based on [4], [7], [8], [9], [10], [14], [15], [21]

conclusions can be obtained by using all four indicators. The HHI is calculated by adding the squares of market share percentages of all market participants, or as follows:

HHI = (market share of the company 1 in %)^2 + (market share of the company 2 in %)^2 ... + ... (n company's market share in %)^2

In the case of the insurance market, the Herfindahl-Hirschman index is calculated by summing the squares of the relative market share of each insurance company according to the following formula:

$$HHI = \sum_{i=1}^{n} \left(\frac{p_i}{P} \right)^2,$$

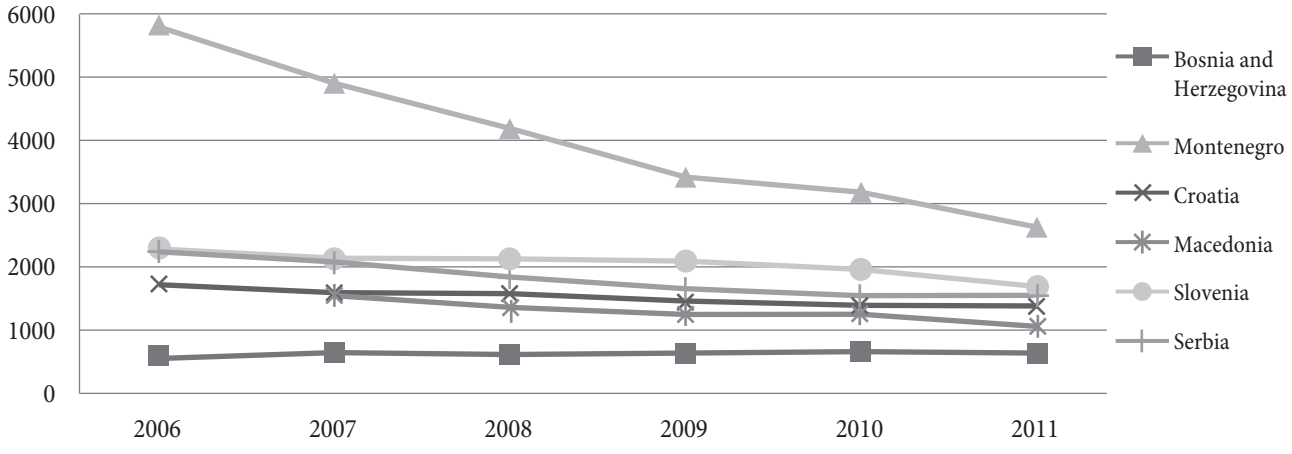
where p_i is the size of each company's premiums and P total market premium.

Herfindahl-Hirschman index commonly accounts for all market participants but can be calculated for the top three, top five, eight or ten. The HHI is calculated by the individual squaring and summing of market shares of each insurance company expressed as a percentage, where the index value can be between 0 and 10000. When index approaches zero, it indicates that the market has a large number of participants of similar size, which implies the existence of more competitive market than in the opposite case. In addition, non-concentrated market is considered to be a market for which the HHI is calculated in the range between 0 and 1000, the market for which the HHI is calculated in the range between 1000 and 1800 is considered to be moderately concentrated and concentrated market is considered to be one for which the HHI is greater than 1800 (up to 10000). HHI decreases with the growing number of competitors. This index gives proportionately greater value to companies with larger market share and given that it represents the sum of squares of the individual market shares, as individual market shares are lower the smaller total index will be, and will indicate the more competitive market.

Finally, the degree of market concentration and competition can be expressed through the Herfindahl-Hirschman index. Figure 5 presents the movement of the index for all insurance markets of the former Yugoslavia in the period from 2006 to 2011.

Movements of the HHI in all countries, except Bosnia and Herzegovina, indicate a trend of continuous decline or decrease of concentration. There are evident differences between the individual markets, among the most obvious are between insurance market in Bosnia and Herzegovina and Montenegro. The insurance market in Bosnia and Herzegovina, on the basis of data on HHI, is one of the most competitive insurance markets in the region. Although it could be identified a slight increase in the value of HHI, these values are still significantly below 1000 and undoubtedly indicate high level of competition in this market. The insurance market in Montenegro is the least competitive market in the region of former Yugoslavia. In this market, at the beginning of the period HHI amounted to more than a defined threshold of 1800 (and 2000 if we take into account the framework

Figure 5: Herfindahl-Hirschman Index as a measure of the competition of the insurance market in the countries of the former Yugoslavia in the period from 2006 to 2011



Source: authors' calculations based on [4], [7], [8], [9], [10], [14], [15], [21]

determined by the EU). Also, during the observed period the insurance market in Montenegro experienced the most significant transformation in terms of the competition of the insurance market, although it still remains the market with the highest degree of concentration. The insurance market in Croatia during the observed period improved the competition measured by the HHI value, which decreased from 1721.39 to 1357.38. The insurance market in Macedonia also underwent positive change in the HHI value in the period in which the value of the index from 1556.07 in 2007 decreased to 1044.53 in 2011. As for the insurance market in Serbia, a highly concentrated market in 2006, when the HHI was 2236.47, turned into a moderately concentrated market in the 2009 and by 2011 its HHI further improved reaching the value of 1551.26. Finally, the insurance market in Slovenia during the period suffered minor changes in the HHI value and despite improvements at the level of the amount of 2290.76 in 2006 to the level of 1952.96 in 2010, market remained highly concentrated in the 2011 when the value of the index for the first time fell below 1800, i.e. at the level of 1675.86 (according to the parameters used in the EU this market in 2010 crossed for the first time in a moderately concentrated market position).

Conclusion

In the countries of the region, as shown in the paper, a direct connection between increased competition in the market and market development cannot be fully established. The above-mentioned is evident given that the region's most developed insurance market is Slovenian insurance market, which is characterized by a relatively high market concentration and high level of development. We are of the opinion, however, that the main reason for the high development of this market is relatively higher per capita income than in other countries in the region. On the other hand, the second most developed insurance market, insurance market in Croatia, is characterized by relatively low market concentration. However, it is evident that in the markets where the competition is greater, or in which market concentration gradually reduces, including the market of Bosnia and Herzegovina, Montenegro and Macedonia, the insurance market is more developed.

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PROSPECTS OF IMPROVING THE COMPETITIVENESS OF SERBIAN AGRICULTURE IN (RE)INDUSTRIALIZATION PROCESS

Perspektive unapređenja konkurentnosti poljoprivrede Srbije u procesu (re)industrijalizacije

Abstract

Competitiveness in the international business environment is a key instrument of success and evaluation of created value of all participants in the value chain. It can be assessed using a variety of indicators, taking into account many factors affecting its complex structure. Hence, it is a framework affirming the competitive advantages/disadvantages on the macro and micro-level as well as on the level of companies and their product offer. Competitiveness can be analyzed at the levels of national economy, industrial sectors, as well as individual products level. The most common approach to the comparison of achieved competitiveness level relates to product costs and/or market price compared to quality (value) aspects of the product/service.

Prices and the quality of inputs feature as the starting points for competitiveness of the national economy. Efficiency of operations recognizes the impact of all inputs, especially those whose relative share in the total production cost is high. In contrast to the highly automated production processes, agriculture remains a labour-intensive activity, despite the increase in the level of automation. It is an exception compared to other industries due to the high impact of the effects of climate and other natural factors productivity. At the same time, agriculture is a very important economic and social field of activity, and different concepts of macroeconomic measures are developed in different national economies to stimulate the balanced regional development of agricultural production. Macroeconomic factors that determine overall business environment for the development and competitiveness of agriculture have a very high level of impact on the competitiveness of agricultural products in the Republic of Serbia.

Key words: *competitiveness, price comparison, macroeconomic measures*

Sažetak

Konkurentnost u međunarodnom poslovnom okruženju predstavlja ključni instrument uspeha, odnosno evaluacije stvorene vrednosti svih učesnika u lancu vrednosti. Ona se može vrednovati pomoću različitih pokazatelja, uz uvažavanje velikog broja faktora od uticaja na njenu složenu strukturu. Otuda ona predstavlja okvir kojim se potvrđuju konkurentske prednosti/nedostaci, kako na makro nivou, tako i u odnosu na mikro nivo odnosno same privredne subjekte i njihovu ponudu. Konkurentnost se može posmatrati na nivou čitavih nacionalnih privreda, industrijskih grana i sektora, kao i na nivou pojedinačnih proizvoda. Najčešći pristup komparaciji dostignutog nivoa konkurentnosti dovodi u vezi iskazanu cenu koštanja i/ili prodajnu cenu u odnosu na kvalitativne (vrednosne) aspekte proizvoda/usluge.

Polazna tačka u ostvarivanju konkurentnosti celokupne nacionalne ekonomije su cene i kvalitet inputa. Efikasnost poslovanja uvažava uticaj svih inputa, a posebno onih čije je relativno učešće u ukupnoj ceni koštanja visoko. Za razliku od visoko automatizovanih proizvodnih procesa, poljoprivreda i pored porasta stepena automatizacije i dalje predstavlja radno intenzivnu delatnost. To je izdvaja u odnosu na druge privredne grane zbog visokog uticaja produktivnosti, kao i uticaja klimatskih i drugih prirodnih faktora. Istovremeno, poljoprivreda predstavlja i veoma značajan ekonomsko-socijalni sektor, pa su u različitim nacionalnim ekonomijama prisutni različiti koncepti makroekonomskih mera kojima se stimuliše ravnomeran regionalni razvoj poljoprivredne proizvodnje. Veoma visok nivo uticaja na konkurentnost poljoprivrednih proizvoda u Republici Srbiji imaju makroekonomski faktori koji opredeljuju opšti poslovni ambijent za razvoj poljoprivrede i njenu konkurentnost u celini.

Ključne reči: *konkurentnost, komparacija cena, makroekonomske mere*

Introduction

The relative share of agriculture in the total GDP of national economies at the EU level is currently showing a declining trend. As regards Central and Eastern Europe, agriculture employs over 10 million people, and its average share in the GDP amounts to approximately 7%. As well as Bulgaria, Romania, Hungary, Poland, the Czech Republic, and Slovakia, the competitiveness of agriculture in the Balkans countries including Serbia is highly subject to changes influenced by the liberalisation of national markets brought about by EU integrations. These trends point to the need for faster responses that are required at both macro and micro levels, in order to enable the improvement of general competitiveness of Serbian agriculture and processing industry.

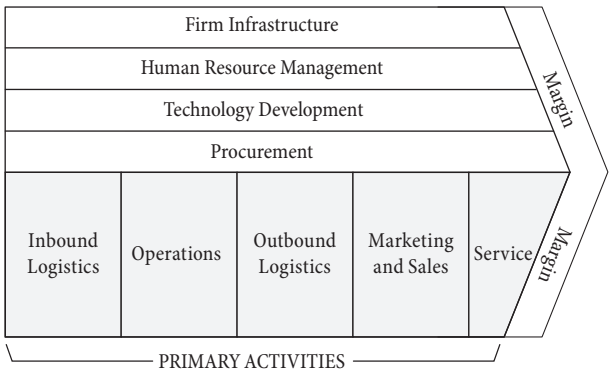
The concept of competitiveness of a particular industry should not be identified with a company's competitive advantage. The potential of achieving the competitiveness of Serbian agriculture can be affected by various macroeconomic factors. They can make a direct or indirect (de)stimulating impact on the efficiency improvement of all business processes in creating the value chain of agricultural products. It must be pointed out that the sales prices of agricultural products are formed based on the prices of inputs invested in agricultural production, which can be achieved on the national markets of labour, capital, seed cultures, chemical fertilisers, petroleum products, and also logistic services such as transport and storage. These factors play an external role in creating the value chain of agricultural products, and are beyond the control of the key carriers of agricultural activities. Seasonal and annual oscillations in the prices of these factors may make a positive or negative impact on the final cost price, with the simultaneously present rank of statistical significance of their effect.

Competitiveness: Theoretical approaches and definitions

The concept of competitiveness has been developing in the economic theory and practice in parallel with the rapid internationalisation processes of national markets in the second half of the twentieth century. Despite numerous attempts, economic theory has not offered a universal definition of competitiveness. Different approaches to defining it result from a very broad scope, which should offer an appropriate framework for the conceptual determination of competitiveness at the levels of products, product groups, companies, industries and/or national economies in various temporal and spatial conditions [1]. According to some authors like *Porter*, the concept of productivity is not applicable on the level of national economy; only national productivity can be used here.

As regards the limitations of the application of competitiveness at the national economy level, it is necessary to point to different definitions focussing on the ability of particular countries to increase the share of their own products on the domestic and international market. A particular country, region and/or sector can have the competitive advantage of the products that they can produce at lower costs in comparison to competitors, maintaining the quantity and quality levels. In other words, competitiveness as a framework must take into consideration the characteristics of the structure of the market segment and the buyers' needs. The stress in the orientation to competitive struggle must be placed on the choice of an appropriate competitive strategy in order to create an optimum value change. The value chain shows the total generated value of a product or service, resulting from synchronised physical and technological activities of transforming inputs into a new product with a value for the final customer. *Porter* lists five generic categories of primary activities essential for achieving high competitiveness in an industry: inbound logistics, operations, outbound logistics, marketing and sales, and service (see Figure 1).

Figure 1: Generic value chain



The primary activities of the generic value chain point to possible points for creating competitive advantages or disadvantages, expressed as relative costs of production in relation to other regions and countries. Some theoreticians, such as *Chenery*, point out that the state can generate international competitiveness of its agricultural products if the price of all the factors influencing agricultural production is lower than the export prices, i.e. average price on international produce exchanges. Economic theory has developed several models for measuring competitiveness, such as the Global Competitiveness Index (GCI) and the Domestic Resource Cost (DRC) ratio. It is interesting to note that, according to the Global Competitiveness Report 2009-10, Serbia takes up the 93rd place of 133 evaluated countries, i.e. national economies. The GCI index is the synthesis of assessments of their national economies by 12 observed competitiveness factors, including expanded market dominance (oligopoly), market efficiency, effectives of anti-monopoly policies and the intensity of local competition. These very factors appear as the key weaknesses of the Serbian national market compared to other countries [12, p. 123].

The Domestic Cost is a model for assessing the international product prices. It enables comparing the opportunity costs of national production with the value added created based on this. It is the ratio between the sum of costs of used domestic resources such as soil, labour and capital (inputs not traded at the international level) and the value added (value of outputs minus value of inputs, expressed through unit prices) – formula 1 [8, p. 3].

$$DRC_i = \frac{P_i^r - \sum_{j=k+1}^{n} a_{ij} V_j}{P_i^r - \sum_{j=1}^{k} a_{ij} P_j^r}$$

If the DRC ratio value is below 1, national production is efficient and competitive on the international market. In that case, the opportunity costs of using domestic resources are lower than net selling prices on the international market, or their sale on the national market results in the reduction of the import of equivalent products from abroad. DRC ratio value above 1 indicates a lower competitiveness level of domestic products compared to international competitors. The DRC approach enables comparing comparative advantages between economic values not only at the national, but also in the international level, but it is characterised by significant limitations in its application as well.

Numerous researchers (*Ratinger*, *Gordon*, *Banse*, *Deaconescu*, *Michalek*, *Bozik*, *Kuhar* etc.) have conducted their studies based on the DRC ratio. The studies encompassed assessment of competitiveness of crops and produce (between 5 and 15 products such as wheat, maize, sunflower seed, sugar beet, potatoes milk, eggs, pork, beef and poultry) in the countries of Central and Eastern Europe. According to the results of these studies, highly competitive products in countries such as Bulgaria, Romania and Hungary are predominantly wheat, maize and sunflower seed, whereas milk, beef and pork from these countries were highly uncompetitive when compared to the leading countries of the European Union [7, p. 6-8]. Considering the similarities that agricultural production in Serbia shares with the neighbouring countries, it can be concluded that price competitiveness of domestic produce is relatively low compared to the EU, except for wheat, maize and sunflower, which is also accompanied by a growing trend in the prices of these agricultural products at the global level.

When applying the DRC model, researchers are often faced with data unavailability or inadequacy for expressing the social costs, which need to be derived from accounting data [4, p. 26].

The impact of macroeconomic factors on competitiveness levels

Research into competitiveness is a complex area, where ex post analysis of competitive advantages and competitiveness can produce comparatively low amounts of data on the causes of (un)competitiveness of a country and its agricultural sector. One of the key groups of factors of influence on the total competitiveness of a country's agriculture is adapting to the volatile conditions of the international market, i.e. creating the measures of macroeconomic and agrarian policies with direct and indirect effect on the costs of agricultural production. A significant impact on the price competitiveness of Serbian produce is exerted by the following factors: foreign exchange rates, interest

rates, taxation policies, measures of subsidising agricultural production, traffic infrastructure and logistics.

Foreign exchange rates

Serbia uses the policy of floating exchange rates, with daily and seasonal fluctuations, resulting in relatively difficulty of cost calculations for invested inputs, expressed, for instance, in euros, especially in agriculture and other industries with longer production cycles. As a rule, in the period from 2007 till 2013, the exchange rate was 3-5% higher in the spring sowing period compared to the period of harvest and sale of primary produce. This fact resulted in the fact that, through the price of imported inputs (such as chemical fertilisers, seed, petroleum products, pesticides, etc.), the cost price of primary produce expressed in euros included a negative difference causing a reduced international competitiveness of domestic products.

The declining trend of the exchange rate (from 75RSD/1EUR in September 2008 to 117RSD/1EUR in September 2012) also makes a positive impact on the price competitiveness of Serbian primary agricultural products at the international level. Growth in exchange rate results in declining levels of prices of wheat, maize and sunflower seed exported from Serbia, thus causing "artificial" rise in their competitiveness, together with the growing trends in produce exchange prices of these commodities on the global level. Still, in the prevailing oligopoly conditions of purchase of cereals and oil crops, the greatest extra profit effect of such a rise of Serbian produce is achieved by a small number of leading companies in the agribusiness sector.

Interest rates

The price of capital employed is expressed as interest rate on assets employed for short-term and long-term borrowing in order to finance agricultural production. Despite being mostly privatised, the Serbian banking market failed to achieve a high level of independence in comparison with the terms and conditions of foreign credit lines, (notably Greek, Italian and Austrian). A relatively low credit rating of Serbia, high compulsory reserves of commercial banks at the Central Bank of Serbia, political risk and banks' short-term orientation to achieving positive business results have affected the limited level and relative unavailability of credit lines for long-term crediting of agricultural production. Another limiting factor in obtaining long-term loans for agriculture after 2008 was the impossibility of mortgaging agricultural land, which definitely diminished the credit potential of farms and agricultural companies. In the previous period, the Government of Serbia had conducted programmes of subsidising interest rates for dedicated loans for agriculture, but the effects were comparatively low due to various limitations in the application procedure, and insufficient funds in relation to manifested requirements of agricultural producers. In comparison with the leading EU countries, the average difference in interest rates on loans in Serbia ranges between 5% and 10%, resulting in lower price-based competitiveness of domestic agricultural commodities.

Taxation policies

The level of taxes can affect the short-term positions of agricultural products, and the level of long-term investment in agricultural production. The short-term effect of taxation policies is present when tax and/or excise rates are changed. The increase in the overall VAT rate from 18% to 20% in Serbia [19] resulted in a growth in prices of all products, including various inputs for primary agricultural production. If we add to this the raised excises on crude oil and petrol products, and the prices of these commodities on the global level, the period from 2007 till 2013 saw a nominal growth in oil prices on the Serbian market of over 100%. The rising oil prices directly affect the cost price of primary produce, whereas the indirect impact can be valuated through the growth in the price of logistic prices, notably road transport.

It is important to point out that Serbia has adopted various incentive measures through tax reliefs for direct investment in all agricultural sectors. Investors investing over 7,000,000 euros in production cycle or employ a minimum of 100 new employees are exempt from corporate profit tax for a period of 10 years [17]. In view of the fact that the major part of investment in primary agricultural production comes from domestic sources, i.e. accumulation of the agricultural producers themselves, a more significant investment cycle in the Serbian agriculture

failed to happen. The majority of agricultural land is owned by small farmers (less then 5 hectares), which is similar to Italy (69%), Greece (69%), and Spain (50%), so that taxation policy instruments should be developed at the macroeconomic level, which would, in combination with agrarian policies, act as an incentive not only for large companies, but primarily for small and medium farmers. Taxation policy measures, such as reducing and/or exemption from VAT for investment in technological equipment, storage facilities or long-term plantations could result in attracting available funds from the deposits of companies and banks' retail clients.

Subsidising agricultural production

The programmes of subsidising agricultural production are oriented to financial forms of assisting private persons, entrepreneurs and legal persons in terms of credit support to the development of cattle farming, crop and vegetable farming, fruit plantations, viticulture, capital investment in agricultural machinery, equipment and/or facilities [10]. Unlike the implemented subsidy programmes of the Serbian Government in the period 2000-2012, which were subject to frequent changes in the terms and conditions of utilisation, available amounts and the system of calculation and disbursements with frequent delays [18], the European Union leads a policy of continuous subsidies in agriculture. The EU applies flat rate payment, i.e. subsidising per hectare of agricultural land, disbursed directly to farmers. The average subsidy rate in the EU15 countries is three to four times as high as in Serbia, ranging between 300 and 400 euros per hectare. Reduction of available budget funds earmarked for subsidies will make a direct negative impact on the price competitiveness of domestic agricultural products on the international market.

Traffic infrastructure and logistics

The development of traffic infrastructure is a factor of indirect effect on the competitiveness of all the industries of a national economy. Comparative research into the characteristics of efficiency of national economies and their macro-logistic systems points to a high level of positive correlation. In other words, if a country or a region has a prevailingly low development level of traffic infrastructure, this will be transferred to a decreased efficiency of other industries, i.e. the overall national economy my means of logistic services. The competitiveness of the Serbian logistic sector can be valuated through the Logistic Performance Index (LPI). According to the LPI value, Serbia took up the 83rd place at the global level in 2010, and its position is worse compared to the surrounding countries – Hungary, Bulgaria, Romania and Slovenia [15, p. 7]. The average share of logistic costs exceeds 10% of the overall costs of agricultural production, so that the relative inefficiency of this sector is reflects negatively on the price competitiveness of Serbian cereals and other produce.

A systemic approach to improving technology- and knowledge-based agricultural production

The characteristics of agricultural production are highly different when viewing the national economies of the leading G20 countries, and other regions globally. As a rule, the specifics of agricultural production show that, from the aspect of competitiveness of agricultural products, the most competitive national economies also have the highest level of technological, infrastructural and distribution capacities. When comparing highly competitive agricultures of the most developed country with the less competitive agricultures, one can notice a difference in the approach to managing available resources, such as human resources, capital, physical resources and infrastructure. In most cases, agricultural production in less developed national economies bases its comparative advantages on possible advantages in physical and/or human resources, based on low unit cost of these inputs.

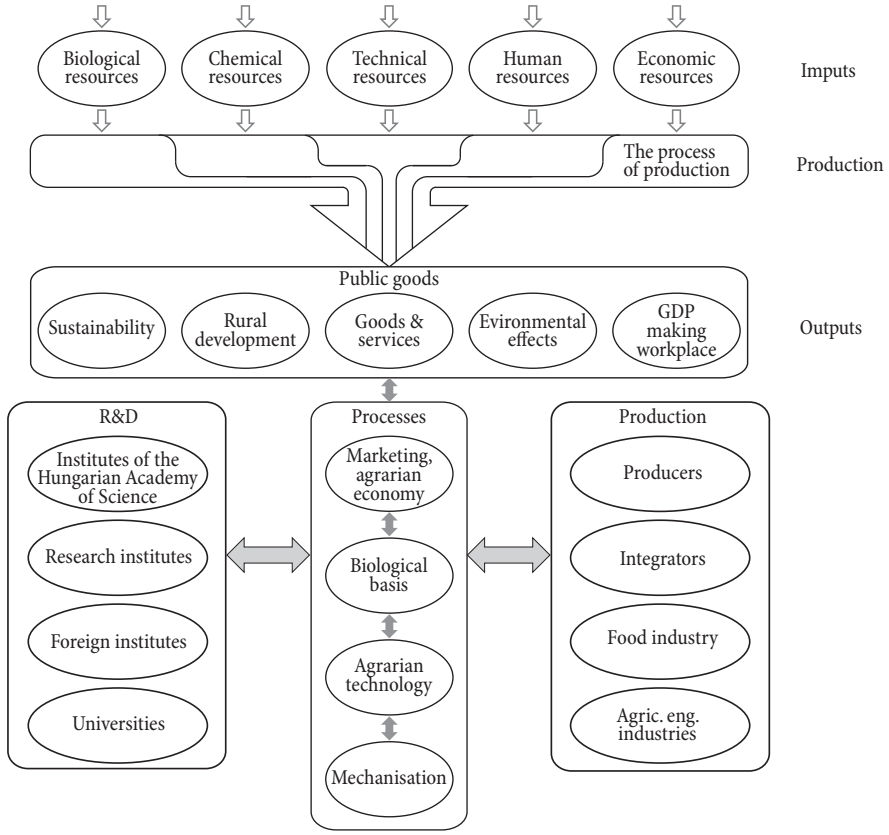
The effect of these advantages has a relatively low of impact on the overall competitiveness, especially in the areas of agriculture with higher potential of the share of capital, logistic and other infrastructure, that is, participation of and knowledge in the development of intensive agricultural production. The competitiveness of the Serbian agriculture can be assessed in relation to the analysis of comparable competitiveness elements of CEFTA countries, or EU-15 countries, or EU-27 countries. The agriculture of Serbia records positive results in total export and import, so that the period 2000-2012 shows

a growing trend with an increased net export level. If, however, we view the structure of foreign trade, it is evident that the total export is dominated by cereals, sugar, fresh and frozen fruit and vegetables (80%), whereas meat and meat products account for only 3-4% [11, p. 85]. It is obvious that the competitiveness of domestic agricultural products is based on lower pricing elements of human and physical resources, and only in the production and trade of commodities with low innovation rates and low participation of technology and knowledge. In all other segments, farmers are unable to achieve competitive advantages without developing a systemic approach based on cooperation, introduction of innovation and new, knowledge-based technologies, and clusterisation aimed at increasing the total efficiency of production (see Figure 2). Serbian farmers encounter various problems in terms of the implementation of new knowledge, limited amount of available capital (especially for long-term investment), inappropriate or inefficient internal and external logistics characterised by prevalence of road transport, limited transshipment facilities, unequal structure of storage facilities across regions, etc.). Bearing in mind the predominant size of farms, education levels, and potential for investment in modernising agricultural production, Serbian farmers must turn to pooling their capacities with other economic entities in cluster production.

Predispositions for cluster development in Serbia do not include only the farmers' willingness or need to participate; what is necessary is creating an appropriate environment at the agro-economic policy level, by means of creating a stable macroeconomic environment; establishing research and development institutions, professional consulting and knowledge bases; developing traffic and market and infrastructure; developing systems and institutions for quality standardisation; investing in education, technology and sophisticated methods, and finally, providing loans, funds, subsidies etc. in order to raise investment levels and increase the technological level of agricultural production [9, p. 301].

In comparison with individual farmers, farms and agricultural companies, the cluster-based agricultural production bases its advantages on lower prices of inputs

Figure 2: A model of production with the market-focused technology development system



Source: [7, p. 107]

(especially of imported component), higher levels of knowledge based on cooperation with universities and institutions, and higher efficiency in the automation of production processes and implementation of up-to-date strategies in logistics and the distribution of agricultural products. Compared to small individual farms sized up to 50 hectares, the average level of cost-based competitive advantage of cluster-based production in the EU is 30-40% higher in cereals, and products with higher finalisation levels, cluster-based production records significantly higher pricing advantages [8].

The ownership structure of agricultural land in Serbia, with a high share of small farms (77.4%) indicates limited potentials for a higher level of investment in knowledge, agricultural machinery, storage and other logistic capacities. Therefore, lack of a broader framework for cluster production has resulted in the lack of investment in agriculture, especially when considering foreign direct investment. Average non-resident investment in Serbian agriculture between 2004 and 2010 ranged accounted for 0.2 and 1.6% of total investment [5], which is a very low share, indicating limited effects in terms of transfer of knowledge and new technologies.

Measures for improving the competitiveness of Serbian agriculture

Raising competitiveness levels implies developing, adopting and implementing the priorities of the Serbian agriculture aimed at increasing the productivity and cost-effectiveness of processes, with the additional objective of achieving either lower unit price of output and/or enhanced product quality. In other words, it is essential to maintain and exploit the competitive advantage of domestic agricultural production by using the positive differences in natural potentials (such as climate, soil and water resources), and enhancing the qualitative characteristics of agricultural products (production of higher-quality varieties, certified production, organic production, creating trade marks and other distributive advantages through the protection of geographic origin, brands, packaging design etc.). In other words, it is necessary to use the factors influencing the improvement in competitiveness through three groups of factors – the factors of raising the level of technical equipment and productivity at the micro level (the farm or enterprise level); macro factor such as protecting property rights, intellectual property, legal protection level, deregulation and agro-economic measures; and factors based on knowledge and technology transfer through including educational and scientific institutions in joint agricultural production and processing at the cluster level.

The system of measures for enhancing competitiveness represents a complex and diversified concept, as numerous factors of influence and applied measures have different degrees of identity and direction of action on raising the cost- and quality based advantages of the agricultural sector. Based on their effects, the measures for enhancing the competitiveness of Serbian agriculture can be diversified into several groups:

- Increasing the share of large producers with a direct effect on the increase in productivity through economies of scale;
- Regulating the produce market through reducing monopoly and oligopoly, and establishing price stability on the domestic and international market;
- Strengthening the role of state institutions through increasing agrarian budget, higher share of subsidies and support to cluster production;
- Constructing an irrigation system and lower dependence on climatic factors;
- Educating rural population and developing incentive measures for investing in rural areas through tax reliefs, favourable crediting terms and conditions for agricultural production in rural areas;
- Increasing the average size of farms and reducing the number of small individual farms outside cooperatives and clusters;
- Faster implementation of standards in food production with the emphasis on supporting organic agricultural production;
- Encouraging the development of small agribusiness and entrepreneurships through support in obtaining technical equipment, knowledge transfer and consulting, and other forms of financial and expert assistance through agricultural funds and programmes.

Orientation to the creation of cost-based advantages in the Serbian agricultural production has a relatively limited effect, as the advantages in terms of economies of scale can be achieved only in relation to the neighbouring countries of the CEFTA region due to high dependence on logistic costs. This is exactly why the Serbian agriculture should (re) orient itself to raising qualitative characteristics as a basis for improving competitiveness. Quality standards (ISO 9000, ISO 22000, HACCP, GMP and GHP) are insufficiently present among farmers and processing entities, especially in the entrepreneurship sector in agribusiness and processing industry. The reasons for this can partly be sought in inadequate knowledge of legislation, but also in the lack of systemic support through cluster association, without which individual farmers do not possess sufficient knowledge, capital and technological equipment to meet and apply the above mentioned standards in their own production.

One of the possible avenues of developing Serbian agriculture is the segment of organic production, which can contribute to socio-economic and environmentally sustainable development of agriculture and economy in underdeveloped national economies [3, p. 9]. Serbia possesses a significant natural potential, favourable agrarian landscape, climate and water resources as vital prerequisites for developing organic agriculture. The average farm size of 3.5 ha and their fragmentation enable the involvement of a large number of producers in organic agriculture and mitigating economic and social tensions burdening this industry over the past years [2, p. 6].

Conclusion

Competitiveness of a product, economic activity, industry and national economy in general is a highly complex area of strategic management. The focus of synchronising different activities with the objective of achieving higher competitiveness on the international market is located within all the macroeconomic measures and microeconomic elements aimed at improving economic effectiveness and efficiency. The starting point for higher competitiveness is a comprehensive analysis of the existing resources aimed at agricultural production, and their comparison with comparable parameters on other national markets. Some of factors influencing the competitiveness level may have negative effects, whereas others make a positive impact on the competitiveness index. At the same time, it is necessary to point out that certain factors have predominantly short-term and/or direct effects, whereas in most cases much better effects can be achieved with long-term agro-economic policy measures, with indirect impact on the productivity and cost-effectiveness of agricultural production.

The agriculture of the Republic of Serbia shows a somewhat higher degree of competitiveness compared to the overall competitiveness of the national economy. The structure of competitiveness of Serbian agriculture shows price-based competitive advantages of cereals and cereal-based products. It is the segment of fruit and vegetable production, fresh meat and processed meat sector that one can identify numerous "reserves" for enhancing efficiency and achieving price- and quality based competitive advantage of agricultural products. Enhancing the competitiveness can be achieved by combining macroeconomic and agro-economic measures with the advantages of cluster-based association of entities. Clusters in the Serbian agriculture can contribute to a higher level of innovation, increased productivity and cost-effectiveness of agricultural production, which, in combination with the formation of new companies and adopting new technologies, can result in increased competitiveness at all levels – from basic farming to higher competitiveness of the overall agricultural sector and processing industry of Serbia.

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STRUCTURAL CHANGES IN THE LIGHT OF NEW INDUSTRIAL STRATEGY

Strukturne promene u svetlu nove industrijske strategije

Abstract

Although a certain progress was made on a developmental trajectory in the last decade of the implementation of reform processes, the fact is that the economic performance of the Serbian economy has been unsatisfactory, due to the impact of factors of internal character and indirect influence of external factors, especially the global financial and economic crisis. The crisis not only slowed down the process of structural reform and adjustment of the Serbian economy to the requirements of a modern market economy, but also limited the opportunities for achieving basic development goals defined in the National Strategy of Economic Development from 2006 to 2012.

With the slowdown of transition process of the Serbian economy under the influence of crisis the true picture of the challenges that the Serbian economy will face in the future has been revealed, which has imposed the need to redefine the existing basis of its development, change the concept of development and adapt the system within which a new concept will be realized. The new pro-investment and export-oriented growth model implies the implementation of measures directed towards intensifying structural reforms of the Serbian economy, with a focus on investment, exports and increasing the share of industrial sector in GDP structure, as well as measures aimed at accelerating the reform process and the involvement of Serbia into European integration structures.

In the last decade of the transition process the Serbian economy did not experience any substantial change in its economic structure. Experience of advanced countries in transition confirms that implemented structural reforms contribute to accelerating the pace of economic growth and achieving a qualitative shift in the structure of industrial production. Given the fact that the new development orientation of the Serbian economy emphasizes the role that the industry, particularly manufacturing, will have in its realization, the goal of this paper is to highlight the importance of finding ways to accomplish more efficient transformation of the structure of Serbia's economy in achieving the goals of pro-investment and export-oriented growth model.

Key words: *structural changes, transition, Serbian economy, foreign direct investment, industry*

Sažetak

Iako je u prethodnoj deceniji sprovođenja reformskih procesa učinjen izvestan pomak na razvojnoj trajektoriji, činjenica je da su ekonomske performanse koje je srpska privreda ostvarila nezadovoljavajuće, zahvaljujući delovanju faktora internog karaktera i indirektnom uticaju eksternih faktora, posebno svetske finansijske i ekonomske krize. Pod uticajem krize ne samo da je došlo do usporavanja procesa strukturnih reformi i prilagođavanja srpske privrede zahtevima moderne tržišne ekonomije, već su i ograničene mogućnosti za ostvarivanje osnovnih ciljeva razvoja definisanih u Nacionalnoj strategiji privrednog razvoja od 2006. do 2012. godine.

Sa usporavanjem procesa tranzicije srpske privrede pod uticajem krize otkrivena je prava slika izazova sa kojima će se srpska ekonomija suočiti u narednom periodu, što je nametnulo potrebu za redefinisanjem osnove na kojoj se ona razvijala, kao i promenom koncepcije razvoja i prilagođavanjem sistema u okviru kojeg se ona ostvaruje. Novi proinvesticioni i izvozno orijentisani model privrednog rasta implicira primenu mera u pravcu intenziviranja strukturnih reformi srpske privrede, sa težištem na investicijama, izvozu i povećanju učešća industrijskog sektora u stvaranju BDP-a, kao i mere koje su usmerene ka ubrzanju reformskih procesa i uključivanja Srbije u evropske integracione strukture.

U prethodnoj deceniji sprovođenja procesa tranzicije srpske privrede nije došlo do nekih bitnih izmena njene privredne strukture. Iskustvo naprednih zemalja u tranziciji potvrđuje da su sprovedene strukturne reforme doprinele ubrzanju tempa privrednog rasta i uticale na kvalitativan pomak u strukturi industrijske proizvodnje. Imajući u vidu činjenicu da se u novoj razvojnoj orijentaciji srpske privrede potencira uloga koju industrija, posebno prerađivačka, ima u njenoj realizaciji, cilj ovog rada je da ukaže na značaj koji pronalaženje načina za ostvarivanje efikasne transformacije strukture privrede Srbije ima u ostvarivanju ciljeva proinvesticionog i izvozno orijentisanog modela rasta.

Ključne reči: *strukturne promene, tranzicija, privreda Srbije, strane direktne investicije, industrija*

Introduction

The main objective of developing countries and countries in transition is to create a competitive economic structure in order to achieve sustainable economic growth and increase material well-being of the population. It is well known that industrialization as an accepted general method of development has contributed to achieving high rates of economic growth in many countries as well as to structural transformation towards increasing the share of industrial sector in the creation of GDP. In general, the term industrialization refers to the structural changes in a country that is in the process of transition from agricultural to industrial economy, with certain repercussions on social system. This developmental phenomenon has led many economists to argue that the industrial sector is a promoter of economic growth.

Debates among economists on this issue over time lost their significance, whereas in the conditions of global economic change the process of tertiarization became a key direction of structural changes. The service sector in recent years increased its share in GDP, both in developed and developing countries, and it has been actively playing the role of an agent of development. However, although it is noticeable that industry and agriculture reduced their share in the gross domestic product, it does not mean that these sectors have lost their importance. On the contrary, their importance over time can only increase, because only compatible and tightly connected economic sectors can provide a stable and sustainable development.

Industrial development of the 19th and most of the 20th century was replaced by a new concept of sustainable industrial development, based on knowledge, innovation and entrepreneurship. The European Union at a summit in Lisbon in 2000 defined the new concept of industrial development in the 21st century, noting "we should leave as soon as possible – a widespread but false assumption – that in the age of IT and service companies and the knowledge-based economy, the manufacturing industry no longer plays a key role" [2, p. 6]. In addition, the global financial and economic crisis, along with the expansion of the financial sector and problems with which many countries still have to deal on their way of industrialization, has brought the issue of selection of the model of growth and development again into focus and reaffirmed the role of the industrial sector in the process. Policymakers in developed as well as in developing countries consider again the benefits of industry for development, as evidenced by recent empirical research assumptions about the industry as a sector that represents a driver of development (among others, these findings are prominently featured in the research of *Rodrik* [14], *Fagerberg* and *Verspagen* [4], [5], *Szirmai* [20], *Szirmai* and *Verpagen* [21]).

In accordance with the objective set forth herein, the paper is structured as follows. After introductory remarks a brief overview of the theoretical consideration of the phenomenon of structural change will be given. Further in the paper the key features of the structure of the Serbian economy will be discussed. In the third part of the paper the attention is focused on the analysis of trends in the development of industry in Serbia, while in the conclusion there will be presented the synthesis of relevant opinions, including some recommendations to policymakers.

Structural changes: A short review of theoretical considerations

In economic theory, the issue of structural change has always received much attention. Great economic classicist *Adam Smith* found the correlation between structural characteristics of the economy and the level of economic development [19], while, according to *Ricardo,* changes in the production structure are key assumptions for achieving high rates of economic growth [13]. Despite the fact that there are many different definitions of the concept of structural changes, their common feature is that they see structural changes as long-term and permanent changes in the sectoral composition of economic systems.

Structural changes in the economy are usually associated with the change in relative importance of certain sectors of the economy, as seen from the aspect of their participation in the creation of output and employment. Other aspects that should be taken into account are the changes in the location of economic activity, such as the process of urbanization and changes in institutional

environment. Therefore, the analysis of structural change implies that the economic dynamics can be studied by "focusing attention on a relatively small number of activities that make up the economic system and create economic structure" [14, p. 273].

The growth theories emphasize the importance that structural changes have on acceleration of growth. Thus, *Kuznets* points out that "structural changes... are necessary, without them the growth is impossible" [4, p. 348]. On the other hand, *Schumpeter* emphasizes the role that innovation and its dissemination through imitation and further improvement have in the structural transformation of the economy. Especially in recent years a growing number of economists have stressed the importance of technological innovation and its diffusion in the process of growth.

Unlike classical economists, in the works of neoclassic economists the issue of structural changes becomes less central. Standing firm in the belief that the market provides allocative efficiency, neoclassics observe structural changes as an automatic result of market development, rather than as a prerequisite for growth. Given all the above-mentioned facts, a question arises as to which of the two theoretical approaches to describing the phenomenon of structural change is adequate enough to explain the process of structural change in modern dynamic conditions imposed by the globalization of the world economy.

In the new environment imposed by the globalization, understanding the significance and need for structural transformation is gaining importance in developing countries and countries in transition for several key reasons that we do not cite in this part of the paper. It is of great importance to underscore that, in the conditions of increased mobility of international private capital flows, the opportunities for redefining the policy of industrial development in many countries are increased. The implementation of efficient structural transformation in accordance with the requirements of the global economy imposes the need for government intervention or correction of market failures in order to reduce barriers to attracting foreign investors to the sectors in which it is possible to achieve higher productivity. This directly implies that the industrial development policy should not focus on the protection of young industries, but instead it should encourage mergers and improve their position in foreign markets, stimulating those activities with higher value added and taking the opportunities to increase productivity, which is a prerequisite for improving the competitiveness of the national economy.

Structural changes in Serbia: Key trends

It is an undeniable fact that economic development is a complex process, which is determined by a number of factors, among which the most important is economic structure. A lack of attention paid to the structural components of economic development could result in far-reaching and severe, irreparable consequences for development issues in the long term.

In the past period of the implementation of transition process besides serious shortcomings and clearly manifested weaknesses, there were no significant changes in the economic structure of Serbia. Although in the period from 2001 to 2008 relatively high average annual GDP growth rate was achieved, the fact is that despite high, albeit uneven annual inflows of foreign direct investment, this period was characterized by slowing pace of structural change (see Figure 1). "Observed by the sectors, the service sector with an average annual rate of 6.6% GVA represents a key generator of dynamic GDP growth of Serbia in the period 2001-2008. Since the beginning of the intensive implementation of transition process the share of the service sector in the creation of GVA increased from 52.6% in 2001 to 62.2% in 2008. Within the service sector the largest expansion experienced financial intermediation, wholesale and retail, and transportation and telecommunications sector, hence the sectors of non-tradable goods whose dominance in the creation of GVA does not represent a valid basis that may provide stronger support to exports and raise the competitiveness of Serbian economy" [10, p. 250].

Analyzing the data from Table 1 it could be said that the service sector in the observed period grew at a rate higher than the manufacturing sector, which led to a profound gap in the structure of GVA. It is notable that the largest decline in share of GVA happened in the

Table 1: The structure of GVA activities in %

	2001	2008	2009	2010	2011	Av. growth rate 2001-2011	Difference in part. 2011-2001
Agriculture	**19.5**	**10.4**	**9.4**	**9.0**	**11.0**	**1.8**	**-8.5**
Industry	**23.3**	**20.5**	**20.8**	**20.7**	**21.4**	**0.3**	**-3.2**
Manufacturing	21.7	16.3	15.8	16.1	14.6	-0.2	-6.1
Construction	3.3	5.5	4.8	4.2	4.6	5.1	1.3
Services	**52.6**	**62.2**	**63.5**	**64.1**	**63**	**4.3**	**10.4**
Wholesale and retail	7.5	12.1	11.0	10.9	10.5	8.6	3
Transport and storage	4.5	5.3	5.4	/	5.6	3.6	1.1
Information and communication	3.7	4.6	4.9	/	4.9	14.5	1.2
Financial activities and insurance activities	2.6	3.4	3.7	/	4.0	5.9	1.4
Real estate	14.4	11.3	12.8	/	12.8	2.0	-1.6
Other services	5.3	3.8	-3.5	1.0	1.62	3.5	
GVA activities	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**		

Source: [12, p. 44]

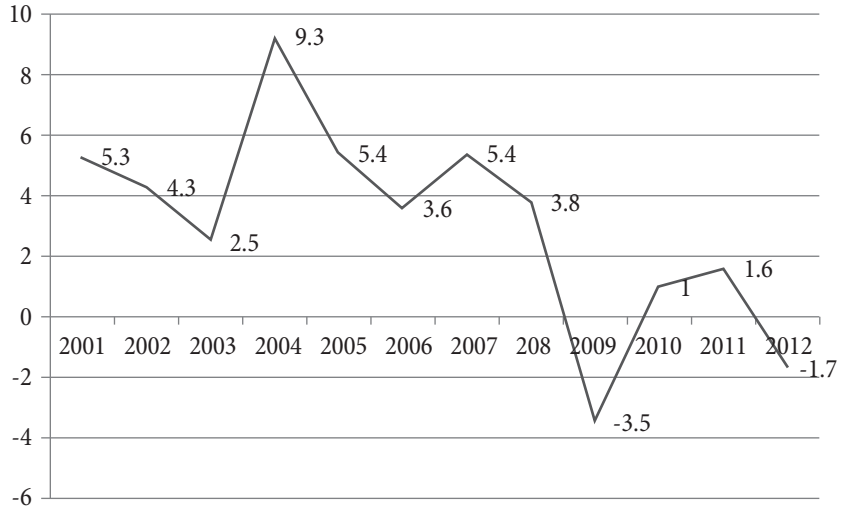
sector of agriculture (-8.5%) and manufacturing (-6.1%), while the largest increase was recorded in the retail sector (3.0%). Negative growth rates recorded in most sectors point to a somewhat slower pace of structural change in the period after 2008.

According to the index of structural change, which measures the overall change in the structure of GVA of all sectors of the economy observed between the two time points, periods of intense structural changes correlate with periods in which a relatively high annual growth rate is achieved (in the period 2001-2004 more than 10% of GVA reallocated among economic activities), and vice versa, which is confirmed by the data on the slowdown in the dynamics of economic growth after 2008, and consequently, in the pace of structural change. This fact directly indicates that without dynamic economic development, accompanied by high rates of economic growth, there are no rapid structural changes, but also that rapid changes in the economic structure can have some impact on the growth rate.

The question is: What lies behind such an expansion of the service sector in the structure of GDP formation?

In transition model of economic growth in the past period foreign direct investment played an important role (see Figure 2). Its expansion was mainly a result of improved institutional framework aimed at encouraging FDI and privatization model, but also of the efforts of authorities to create a positive investment climate. When analyzing the development effects of foreign direct investment on the economy of the countries in transition, it is especially important to bear in mind its potentially great contribution to promoting the restructuring of the economy and

Figure 1: The growth rate of GDP in Serbia, 2001-2012, in %



Source: Authors own graphical presentation based on the data from NBS [8]

strengthening its effectiveness. These positive effects are particularly reflected in: (1) increasing exports, (2) creating the conditions for the transfer of modern technology, (3) direct and indirect impact on the growth of GDP and the volume of investment, (4) reducing inflation, and (5) improving the quality of management.

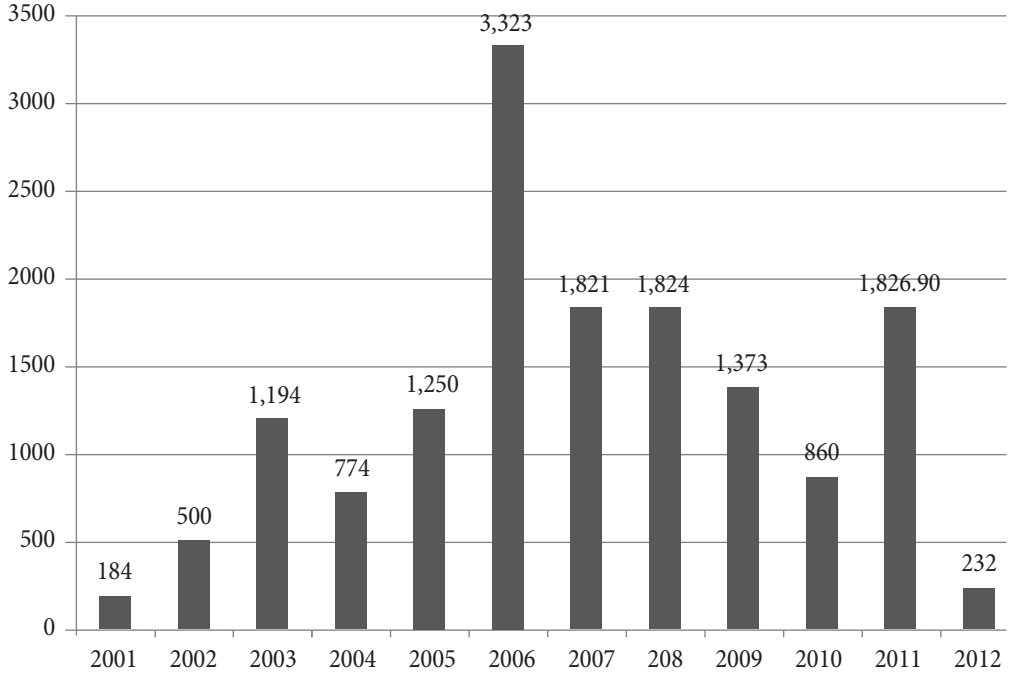
In addition, foreign direct investment generates positive effects on the acceleration of the process of transition in the country, as manifested in: (1) promoting or building the institutional and physical infrastructure, (2) acceleration of the privatization process, and (3) developing and strengthening the competitiveness of the domestic economy.

Issue of attracting a larger amount of foreign direct investment has become especially pronounced in the period after 2008 when, due to the increased investment risk caused by the crisis, many investors showed reluctance to implement major investment projects, which consequently affected the pace of implementation of the privatization process, thus slowing down the process of structural reforms of the Serbian economy. Policymakers today are facing much greater challenges than ever before, especially because of the fact that the implementation of a new development orientation based on investment and exports requires not only constant and high levels of foreign direct investment, but also the sound structure of economic activities that is necessary for encouraging foreign direct investment.

"If we look at sectoral orientation of foreign direct investment, it can be seen that the inflow of foreign direct investment in Serbia according to the principle of automatic mechanism followed a well-known (in other transition countries) and established model of investment sectoral orientation. Creating the conditions for privatization of public companies and taking a series of reforms, with positive effects on achieving a certain degree of macroeconomic, as well as political stability, resulted in drastically increased inflow of foreign direct investment and its orientation to particular sectors. Initially, the largest inflow of foreign direct investment was realized in the manufacturing sector, after its experience an expansion in the sector of trade, automotive, electronic industry, and after all in telecommunications and financial sectors" [2, p. 29].

Comparison of the data from Table 2 and Table 3 confirms the previous assumption. From the perspective of sector orientation, the largest inflow of direct investment in 2001 was achieved in trade and industry sector. However, the period after the 2004 was characterized by a trend of prevailing sectoral orientation of foreign direct investment inflows to the service sector, due to higher profitability,

Figure 2: The net inflows of foreign direct investment in Serbia, 2001-2012, in mil. EUR



Source: Authors own graphical presentation based on the data from Ministry of finance and economy [7]

which led to an increase in share of the non-tradable sector in the economic structure. This is confirmed by the data in Table 3 which clearly indicate the dominance of financial intermediation in total foreign direct investment inflow in the period from 2004 to 2012. Hence, investment was also directed to manufacturing industry, which recorded a cumulative foreign direct investment inflow of EUR 4.4 billion, and then to wholesale, retail and repair of motor vehicles and real estate activities.

If, in addition to the above-mentioned picture of sectoral composition of investment, we also take into account the fact that the service sector played the role of the generator of GDP growth throughout the transition period from 2001 to 2008, it could be said that foreign direct investment largely contributed to its expansion. On the other hand, it is clear that due to the decline in production, privatization and inadequate investment structure, the industry in the observed period recorded a slower average growth (of about 1.0%), and that reduced participation of the tradable sector in economic structure cannot provide an impetus for future growth. Continued adverse trends in the industry represent key constraints to achieving the vision of development as well as to the implementation of a new model of growth and development based on the growth of industrial production (annual rate of 6.9%) and, in particular, manufacturing (annual rate of 7.3%). According to the projections of a new model of growth and development, the state should provide direct support to such growth through measures directed at encouraging change in the composition of investments towards a higher share of export-oriented and technology-intensive greenfield investments, which would consequently contribute to an increase in the share of manufacturing from the current 30% to 40 % in total inflow of foreign direct investment.

Table 2: Sectoral structure of foreign direct investment, 2001

Industry	Number of agreements	Participation of foreign direct investment in %
Construction	107	8.10
Production and finishing of textile products	106	8
Production and processing of foods	100	7.58
Mechanical and electrical industry	67	5.07
Graphic industry	46	3.48
Wood industry	39	2.95
Manufacturing and beverage processing	32	2.42
Production of plastics	30	2.27
Production of shoes and leather industry	30	2.27
Cosmetics	27	2.04
Paper production and printing industry	21	1.59
Production of home appliances	19	1.44

Source: [13, p. 65]

Table 3: Inward foreign direct investment by industries, 2004-2012

Industry	Investment value (USD mil.)
Financial intermediation	4,820.0
Manufacturing	4,450.0
Wholesale, retail, repairs	2,983.0
Real estate activities	2,384.0
Transport, storage and communication	2,360.0
Mining and quarrying	533
Construction	494
Other utility, social and personal services	134
Agriculture, forestry and fishing	133
Professional, scientific and technical activities	105
Accommodation and food service activities	94
Public administration and social insurance	83
Electricity, gas and water	56
Administrative and support service activities	22
Education	3

Source: Own tabular display based on the data from National Bank of Serbia [5]

Key trends in the development of industry in Serbia

Regarding the economic structure of the Republic of Serbia, it can be seen that the process of tertiarization is also present, which could send the wrong signals and possibly lead to the wrong conclusion that economic development should in the future lean exclusively on the growth of the tertiary sector. This solution would be detrimental to other sectors, but also to the entire economy, which is still determining the path of the new structural transformation. Neglecting strategic primary sector (mainly agriculture) and secondary sector (mainly manufacturing) would lead to a slowdown in growth of the economy and in the development of the tertiary sector which is largely dependent on other sectors. This is especially true for business services that are directly dependent on the development of the industry.

While Serbia is doing well on its way to achieving full membership in the European Union, it is justified to perform comparisons of the development levels of industry in Serbia and the European Union. Such an analysis provides a basis for concluding that in recent years the situation in Serbia has been significantly different from that of the EU. The leading industrial sectors in the EU include primarily mechanical, electronic, pharmaceutical, chemical and textile industries. In Serbia, the same sectors are under development or closure. Machinery industry is one of the leading industries in the EU, which makes the EU a leading manufacturer of mechanical equipment in the world. The EU is also at the top when it comes to electronic industry (behind Japan and the U.S.), and the pharmaceutical industry after the United States. The new EU industrial policy emphasizes the following objectives [11, p. 2]:

1. Competitiveness of industrial products,
2. Greater use of alternative energy sources,
3. Environmental protection,
4. Review of the legislation,
5. The advancement of knowledge,
6. Winning foreign markets,
7. More efficient management of structural changes.

Serbia, however, shared the fate of the transitional countries of South Eastern Europe that in the second half of the 1990s, unlike Serbia, recorded relatively high growth (due to the growth of investment, private consumption and exports) which led to significant changes in the structure of industrial production. The largest decline in the share was recorded in labor-intensive sectors, above all, in the food processing, textiles and wood industry. More sophisticated industries based on the use of technology experienced above-average increase. The trend of industrial growth in transition economies has continued in the 21st century. It is important to point out that the rapid growth and exports have been, for the most part, a result of the access to the EU market and the fact that considerable industrial capacities from the EU were moved to those countries.

In contrast to the successful transition economies, the EU members, which managed to carry out the restructuring and specialization of their manufacturing sector in a timely manner thanks to extensive reforms and foreign direct investment inflows, the presence of internal and external disturbing factors seemed to constrain the process of structural transformation of the Serbian economy. This resulted in the loss of competitiveness of the Serbian industry, the decline in exports and insufficient volume of foreign direct investment.

The development of the industrial sector in Serbia is burdened by a number of structural weaknesses, but also determined by the problems inherited from the past. Historically, "the dynamic development of the Serbian industry was deeply contradictory process. Very high growth rate was achieved (7.5% in the period 1953-1988), but the efficiency of industrial development was very low and formed industrial structure conservative and quite unsuitable as a basis for the future development of the industry. After the initial dynamic growth, the pace of Serbian industrialization slowed over time. In the last decade of the 20th century there was a definite breakdown of industrialization model in Serbia. Generally accepted view is that the collapse of the Serbian industry occurred due to the nuisance in which Serbia was in the last decade of the 20th century" [16, p. 2]. Expectations that the revitalization of industry in Serbia might happen after 2000, practically remained only on paper. The fact is that the "new transition concept of development, based on

liberalization, deregulation and privatization interrupted the development of Serbian industry. Average growth rates are several times lower than the growth of GDP, while the share of industry in GDP drops dramatically, which is contrary to the concept of development that is applied in leading countries in transition, China, and most highly developed countries in the world" [16, p. 2].

With regard to the level of development, the industry of Serbia lags behind other countries in transition. A large decline in industrial production during the 1990s was not recovered in the past decade, not even mitigated. Despite the growth in the period from 1994 to 1998, the level of industrial production in 2000 was 42.4%, and in 2007 only 49.1% relative to 1990. The global financial and economic crisis that began to produce the first effects at the end of 2008 is a tragic confirmation of faulty transition strategy for growth and development of the Serbian economy, whereas due to the impact of the crisis all the indicators of macroeconomic trends entered into the zone of negative developments. "The crisis has only additionally burdened the transitional problems of the Serbian economy and stressed the need to redefine the basis on which it was developed in the previous decade, to change the concept of development and to adapt the system within which it is implemented. In such conditions, the relevant economists have proposed the "Post-crisis model of economic growth and development of Serbia in the period from 2011 to 2020", which should lay out the future strategic courses of activities directed at speeding up the pace of economic growth and accelerating development and which, like a new development model, are to be built taking into consideration all the specifics of the Serbian economy and in accordance with new European strategy "Europe 2020" [10, p. 249].

This exact moment caused that the assessment of the achieved level of development of Serbian economy in transition is to be based on the analysis of two periods – the period from 2001 to 2008, and the period after 2008. In the pre-crisis period 2001-2008, the Serbian economy achieved relatively satisfactory transitional results. This statement is best supported by the fact that a relatively high average annual GDP growth rate of around 4.9% was achieved in this period. During the 2009, due to the initial manifestation of the effects of global economic crisis, and especially internal structural problems, the economy entered recession and experienced a decline of 3.5%. Serbia, like other transition countries, experienced a huge drop in economic activity, since the recession wave most hit the industrial systems of the countries in transition. The growth rate of industrial production in Serbia is dictated by manufacturing industry, which is a dominant sector of the domestic industry. In its structure, the most important contributor is the production of food and beverage, and chemical products. It is therefore not surprising that the crisis in 2009 annulled entire transition growth of Serbian manufacturing of 18.6% achieved in the period 2001-2008 (-18.7%), while the number of industrial workers halved (i.e. reduced by 47% in the period 2001-2009), which is one of the largest economic transformations in all transition countries in the region [12, p. 7].

Economic recovery that followed during 2010 occurred mainly due to the implementation of the program of measures to mitigate the effects of the global financial and economic crisis, that were aimed at preserving jobs, creating new employment opportunities and achieving planned economic growth, as confirmed by the following data: the Serbian economy achieved moderate growth (GDP growth rate of 1%), manufacturing industry grew by 3.9%, which is supported by an increase in exports (24 %) and investment (5%). After 2010 there has been noticed a gradual recovery in economic activity in Serbia, although the macroeconomic indicators are still below the levels achieved in the pre-crisis period.

During the period from 2001 to 2011 the industrial production grew at an average rate of about 0.7% per year. Throughout the period Serbian industry faced a number of problems and constraints affecting the profiling of the key features of industrial production such as: technological and economic backwardness of capacities, low competitiveness of products due to unsatisfactory quality but also unsatisfactory quality of service, high imports, low level of marketing management and production management, labor surplus due to still unfinished restructuring and privatization, unfavorable sectoral orientation of foreign direct investment.

The physical volume of industrial production in the past decade generally increased. Manufacturing sector as the most important sector of Serbian industry which accounts for about 70% of total industrial production behaved differently by sub-sectors. The largest decline in production volume occurred in the textile industry (textiles and clothing production), leather and footwear production, wood processing and wood products, except furniture and computer, electronic and optical products production. The highest growth was recorded in production of basic pharmaceutical products and pharmaceutical preparations, production of coke and refined petroleum products, basic metals production, production of chemicals and chemical products, food products production, rubber and plastic products and electrical equipment production.

Available data indicate that industrial production recorded a recovery growth trend during 2012 and especially in the first five months of 2013. The physical volume of industrial production recorded inter-year growth of 4.2%. Growth was recorded in all three industrial sectors: mining (5.6%), manufacturing (5%), electricity, gas and water supply (1.4%).

Analysis of industrial policy that was pursued in the previous transition period shows that it was essentially based on the following elements: the privatization and restructuring of the economy, strengthening of the enterprise sector, and the creation of a competitive business environment. Such a strategic direction determined the definition of specific institutional arrangements and measures of state support towards the implementation of the privatization and restructuring of state-owned enterprises, encouraging foreign direct investment and creating a stimulating business environment through the reform of existing regulations. However, it is evident that, despite the measures of direct state support, the recovery of the industry was too slow in the past, and that the crisis has intensified the problems in this sector.

To what extent is the role of the industry important in the realization of dynamic development of Serbia is explained by the fact that the government in the mid-2011 adopted the Strategy and Policy of Development of Industry of Serbia for the period 2011-2020. The adoption of such a strategic document was determined by a number of factors, both internal and external in character. Internal factors arise from the structural problems in the domain of industry, while external ones are related to the effects of the global financial and economic crisis. The strategy completely rests on and directly supports the goals defined in the post-crisis model of growth and development of Serbian economy for the period from 2011 to 2020, but it is also consistent with the objectives of the new European strategy "Europe 2020". It defines the main strategic goals and objectives of industrial development in Serbia on the way to building a new competitive industrial structure. The basis for the new industrial policy consists of revitalization, restructuring, development and competitiveness improvement of the Serbian industry with the aim of increasing production, productivity and exports in all areas of manufacturing.

According to the Fiscal Strategy for 2013 with projections for 2014 and 2015, it is reasonable to expect that policymakers will engage in the conduct of an active industrial policy in order to increase the competitiveness of the industrial sector and exports, and expand the share of tradable sector in the economic structure. In order to achieve this primary objective, measures are planned to support exports of sophisticated products, before all, of metal, automotive, electronic, food, pharmaceutical and military industries, primarily through attracting foreign direct investment. Special support measures will be directed towards those development projects that contribute to resolving the balance of payments imbalances, involve the use of high technology and employ skilled local workforce, create high value added, contribute to the development of vertical linkages with local suppliers and increase the number of employees.

Conclusion

It is quite clear that without intensive structural transformation, revitalization of industry and especially manufacturing it is not possible to achieve a dynamic and sustainable growth of the Serbian economy in the future. In the previous course of transition, foreign direct investment played a key role in accelerating its dynamics, so it is reasonable to expect that they will retain this role in the future. Policymakers in Serbia believe that in the future

they will also have a strategic role to play in the realization of the vision of development, with emphasis on changing its structure towards a higher share of export-oriented greenfield projects, which should provide a crucial support to increase the share of the export sector in the economic structure and improve its competitiveness.

It is very difficult to make any recommendation for reviving and stimulating industrial production in Serbia, because the matters in this sector are quite out of control. However, it is possible to identify the key activities of policymakers in this sector in the future. In order to reach valid conclusions, it would be illustrative to review following facts, which will provide the basis for explaining some of the attitudes.

If we analyze the manufacturing structure in terms of technological groups it is notable that the low-tech sectors make up 1/2 of the total manufacturing sector, followed by medium-low technology sectors (25.4%), medium-high technology sectors (16.4%) and, finally, the high technology sectors with the share of only 7.5%. Given the very adverse competitiveness ranking of Serbia according to the latest Global Competitiveness Report (95th position), it is clear that with this industrial structure is difficult to raise the ranking of competitiveness, but also to provide entry to a higher stage of competitiveness. A major problem of manufacturing is related to low-tech sectors that currently employ most of the workforce, have the lowest average salary and, at the same time, face a decline in production and growth of the foreign trade deficit. It is obvious that restructuring of industrial sector needs to start right here, i.e. by identifying branches that can be relatively successful in international competition, and those that are in "critical" condition.

It is well known that the food and beverage production is the most important industrial sector of the Republic of Serbia, having the greatest number of employees, relatively stable growth and high profits, and it records the largest foreign trade surplus. This strategic branch, irrespective of its low-tech nature, should be further promoted and modernized in order to enable continual increase in its productivity and strengthen its position in the structure of the manufacturing industry. Also, additional support measures are necessary so that this strategic branch would be able to produce positive effect on the development of agriculture, from which it derives raw materials.

Production of tobacco products is the most productive sector in the group of low-tech sectors, has steady growth and by far the highest average wages, which makes it very attractive, so its further development might go easily. Further expansion of this sector is good also because of the potential reduction of the deficit that it records, which should not be underestimated. Agricultural production should be positively affected by the growth of this sector.

Publishing, printing, reproduction, furniture production and especially recycling are promising sectors, as they have already shown an increase. The recycling sector has recorded surplus in foreign trade, so it will gain significance in the future development period.

All "promising" sectors (including food and beverages production, tobacco products, clothing and fur, publishing, printing and reproduction, production of furniture and heterogeneous products, recycling, rubber and plastic products, production of basic metals, metal products, except machinery and equipment, production of coke and refined petroleum products, chemical products, electrical machinery and equipment, other transportation equipment, office machinery and computers production) must be most strongly supported by measures of economic policy, especially fiscal and monetary policies, which will be the easiest task of economic policymakers of the Republic of Serbia, as these sectors are rather "steeled" in the international game. Efforts in the direction of their development will be focused on their continuing encouragement.

However, one of the most acute problems of the Serbian economy is low-tech sectors of textiles, leather and footwear, wood and paper production. These "critical" sectors have recorded a huge drop in production, productivity and exports, their average earnings are at the lowest level, while they are still employing a huge number of workers. It is evident that their restructuring is the most urgent, but also the most complex, because many workers will have to relocate from these sectors. The problem is thus two-fold: on the one hand, an attempt to encourage production with higher productivity, and on the other, solving the problem of labor surplus. It is clear that some companies in this

sector so seriously lost a step that they must go bankrupt, but relatively healthy companies need to be backed up by an expansive economic policy measures. This primarily refers to the section of clothes, which despite a negative growth rate and the lowest average wage records trade surplus! In these "critical" sectors the state will have to use a strong expansionary fiscal policy in terms of tax exemptions or various subsidies to encourage production. Expansionary monetary policy in terms of loan with minimum interest rates would also give a positive result. Labor surplus would be solved by a strong social policy, without which economic policy stimulus package will be incomplete. Expansionary policy would also positively influence the future attraction of foreign direct investment in this sector.

Sector of medium-low technology is the second most important when the manufacturing is in question and accounts for nearly 1/3 of industrial production. The highest growth within this sector was recorded in the production of rubber and plastic, and production of coke and refined petroleum products. This sector is relatively healthy with very high growth rates, except for production of non-metallic minerals which has recorded a slight decline.

The third in importance is the sector of medium-high technology, which makes 16.4% of total manufacturing. The promising sectors within this group are the production of chemical products, production of electrical machinery and apparatus, production of other transport equipment. Machinery and equipment production, except electrical and motor vehicles, are sectors that should receive special attention. In general, all these sectors are very specific, they require a relatively high technological equipment of production, and the action of the state in terms of attracting suitable strategic partners from developed countries is of great importance here. It is clear that modern technology is a *conditio sine qua non* for the development of this sector, and it will be provided in two ways: transfer from abroad and through offering strong incentives for the scientific-research institutions to actively participate in the permanent process of applied research for the need of the economy. Therefore, the financial support of the state will be of great importance, because it is now very limited and linking research institutions with industry and creating a kind of "network" will be a winning combination in this respect.

Serbia certainly has a major problem with the development of high-technology sector, which is the most present in the developed countries that base their development primarily on this sector. A huge amount of time may be required before the sector becomes dominant in Serbia, as it is currently participating with modest 7.5% in total manufacturing. This miserable share is a result of the difficult economic legacy and impossibility of weakened state to deal with expensive scientific-research endeavors. Of course, this situation should change over time, and the separation of the DP in order to raise the scientific and technological level of the country should be a permanent task of the state.

Having in mind the above-mentioned facts, specific recommendations could be put forward in order to encourage secondary mega sector.

It has already become clear that currently one of the sectors supporting the economic development of Serbia is the sector of the food and beverage industry that has traditionally represented the largest percentage of the total production, employment and exports. Better capacity utilization of the industry, increasing productivity and creating a brand are the future actions of the greatest importance. Serbia has extensive knowledge and experience in this sector, but still has no clear recognition of its major brands on the international market.

In the group of low technology sectors, as potentially propulsive sector stands out the recycling which will become more interesting as soon as tighter environmental requirements have been set up. Perhaps a workforce of "critical" sectors should be diverted to this sector after some retraining, because it is already recording a surplus in international trade. The state should actively support this sector in the future.

Tobacco products production is in itself attractive, because it has the highest average salary in Serbia and there is scope for further development and increase in capacity.

The most critical sectors which need to be carefully and urgently restructured are textile sector, leather and footwear production, wood and cellulose production. Huge international competition, disinvestment and loss of markets

have led these sectors to a critical stage of development, and the situation is even more alarming because there are a large number of trapped non-productive workers which have to be reallocated. Emergency measures of the state should be aimed at identifying potentially promising companies (primarily companies in the production of clothing) whose revitalization and further development should be encouraged by expansionary fiscal and monetary policies. The competitiveness of these products should be based on quality, not on price because in this case the pressure of price competition, especially from Asian countries, would make this attempt useless. So, branding, quality and design should be in focus, not price and quantity.

Particularly difficult task of economic policy will be to ensure development of the medium-high, and especially, high technology. It should primarily start from the sector of medium-high technology, because this sector consists of already developed traditional branches such as chemical production, motor vehicles, transportation equipment, machinery and appliances, including electric. In addition to the active networking of scientific-research institutions with this part of the economy and creating "own innovations" the state must create a favorable investment environment to attract strategic foreign partners. Also, the action "buy domestic" in this sector along with a package of measures of expansive fiscal and monetary policies can largely contribute to enhancement of mechanical and process industries, so that they should slowly become capable of "catching up".

High-tech sectors are now more actively considered by economic policymakers, although their intensive development is foreseen in future. Greater government investments in scientific research are base for the development of the sector.

Besides the processing sector, the energy sector can also be singled out as potentially promising sector. Emphasis should be placed on renewable energy, because Serbia has favorable natural conditions for the development of hydropower, wind energy, energy from biomass. Construction of a new energy infrastructure would especially have a favorable impact on the development of the middle and high-technology sectors of industry.

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IMPORTANCE OF INSTITUTIONS IN TERMS OF COMPETITIVENESS IMPROVEMENT AND ECONOMIC SUCCESS[1]

Značaj institucija za unapređenje konkurentnosti i ekonomske uspešnosti

Abstract

In view of the fact that competition constitutes one of the key postulates of the economic prosperity of both the national economy and its economic entities, this paper brings to attention the need for its continuous improvement. Improvement of competitiveness of a national economy is the most reliable way to achieve economic growth and development, and thus improve the prosperity of the citizens. In this regard, the paper discusses different theoretical approaches to this important economic problem and analyzes the key factors of economic competitiveness. In accordance with the subject of this research, the emphasis is given to the importance of institutions, since they are crucial for creating a competitive business environment and improving competitiveness and economic success. The research implies that it is necessary to determine the level of competitiveness, as well as the state of basic economic institutions, in order to identify both strengths and weaknesses of the national economy as preconditions for the creation and implementation of relevant competitiveness and economic success improvement policies. Such approach is particularly important for overcoming devastating economic conditions in Serbia, which have been present for many years. The paper stresses the importance of the enforcement of contracts and property rights, judicial independence, quality and professionalism of public administration, as key institutions in Serbia's economy which must be consistently regulated in order to be able to contribute to improving the national economy competitiveness. Furthermore, it is pointed out that the institutions, by creating a favorable environment for successful development of economic activities, represent a very important factor in improving the competitiveness of the national economy, and hence provide a solid basis for the long-term growth and development.

Key words: *institutional environment, competitiveness of the national economy, business environment, economic prosperity*

Sažetak

Polazeći od činjenice da konkurentnost predstavlja jednu od ključnih pretpostavki ekonomskog prosperiteta kako nacionalne ekonomije, tako i njenih ekonomskih subjekata, u radu se ukazuje na neophodnost njenog kontinuiranog unapređivanja. To iz razloga što je unapređivanje konkurentnosti nacionalne ekonomije najpouzdaniji način za ostvarivanje ekonomskog rasta i razvoja, a posledično i za podizanje blagostanja građana. Imajući u vidu navedene konstatacije, u radu se razmatraju različiti teorijski pristupi ovom bitnom ekonomskom problemu i analiziraju se ključni faktori konkurentnosti ekonomije. Shodno predmetu istraživanja, naglasak je na značaju institucija, kojim se stvara konkurentski poslovni ambijent, i njihovom uticaju na unapređivanje konkurentnosti i ekonomske uspešnosti. Samo istraživanje podrazumeva potrebu utvrđivanja nivoa konkurentnosti, kao i stanja bazičnih ekonomskih institucija, kako bi se utvrdile prednosti, a istovremeno, identifikovale slabe strane nacionalne ekonomije, kao uslova za kreiranje i sprovođenje politike unapređivanja konkurentnosti i ekonomske uspešnosti. Navedeni pristup je od posebnog značaja za prevazilaženje višegodišnjeg deprimirajućeg stanja u privredi Srbije. U radu se ukazuje na važnost zaštite vlasničkih prava, ugovornih odnosa, nezavisnosti sudstva, kvaliteta i profesionalizacije javne uprave, kao ključnih institucija u privredi Srbije koje je neophodno konzistentno urediti kako bi mogle da doprinesu unapređivanju konkurentnosti nacionalne ekonomije. Pokazuje se da institucije, oblikovanjem ambijenta stimulativnog za uspešno odvijanje ekonomskih aktivnosti, predstavljaju veoma bitan faktor unapređenja konkurentnosti nacionalne ekonomije, čime se njen rast i razvoj postavlja na dugoročno stabilne osnove.

Ključne reči: *institucionalno okruženje, konkurentnost nacionalne ekonomije, poslovni ambijent, ekonomski prosperitet*

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Introduction

In order to define and successfully implement strategic development goals and objectives of the national economy, it is necessary to create key preconditions for developing consistent and comprehensive national competitiveness improvement strategy along with other relevant growth and development factors. This implies the need to direct the role and responsibility of the state, among other things, towards creating such a business environment that would be favorable for economic actors and enable achieving greater effectiveness and efficiency, without which there is no possibility of raising the level of economic prosperity of the society, as well as the individuals. In view of the fact that competitiveness represents one of the key prerequisites for economic progress, its continuous improvement represents one of the most important goals of any national economy and its economic actors. This implies the existence of a developed and consistent institutional environment, as well as other relevant factors. Accordingly, the emphasis is on creating institutional conditions to improve competitiveness at all levels – both macroeconomic and microeconomic ones, which is a requirement for greater economic success. The importance of proper institutional arrangement and the competitiveness of the national economy is reflected in the fact that the basis for the strategic competitive advantages of modern enterprises and the economic prosperity of the country are defined, created and directed in the national economic environment.

There are numerous efforts in the economic literature to explain both economic success and economic failure of particular countries and, therefore, offer an answer to the question why some economies are more successful than others. One possible approach in formulating answers to the above-mentioned question is the analysis of the country's competitiveness. Competitiveness is expressed by means of different indicators, such as the export volume, the share in the world market and the level of Gross Domestic Product (GDP). However, most commonly, competitiveness is manifested in the growth of labor productivity, which ensures long-term sustainable economic growth and increases the well-being of the population, which again, embodies the ultimate goal of the economic policy of each country.

This paper points to the importance of institutions as a determining factor related to improving competitiveness and economic success of the national economy, which is also the *subject of the presented research*. The emphasis is on the fact that the transition economies need to develop adequate and quality institutional environment that would allow dynamic economic growth and development, as well as the improvement of the well-being of the citizens. Thus, the *aim of this paper* is to highlight the importance of conducting thorough and sound reforms, which should result in establishing a favorable business environment that most directly affects the improvement of competitiveness factors, as well as to point to certain weaknesses in the process of establishing appropriate institutions that have appeared in the transition process thus far. The initial *hypothesis* in this paper states that the business conditions decisively determine the level of competitiveness and economic success of a country's economy, which makes it necessary for the particular country to establish an institutional environment that would be favorable for economic actors. Consequently, better and more efficient institutional environment enables creation of a favorable business environment, which decisively influences the improvement of competitiveness and economic success of the national economy.

This paper, in addition to an introduction and a conclusion, is organized in three sections. The first section takes into consideration different approaches to the aforementioned important economic issues, points to the importance of competitiveness of the national economy and its economic actors and analyzes the key competitiveness factors. The emphasis is placed on the role and importance of institutions in creating competitive environment and improving competitiveness and economic success. The second section points to the methods of determining the level the national economic competitiveness, with an emphasis on the economy of Serbia. The key institutional arrangements that are crucial for improving the competitiveness are analyzed in the third section of the paper.

Competitiveness and its key factors

There is no generally accepted single definition of national (economic) competitiveness due to the complexity and diversity of factors by which it is conditioned. In accordance with the specific objectives of this research, the author has chosen to define competitiveness as a set of institutions, policies and factors that determine the size of the national economy output and productivity level per capita. Moreover, productivity is also defined by the sustainable level of economic well-being that is created in a national economy. This means that the level of income, i.e. the level of economic well-being of the citizens of a country, is determined by the level of the country's competitiveness. It is important to bear in mind that the level of national competitiveness is influenced by numerous factors, both direct and indirect ones, including the institutional environment. However, the competitiveness of enterprises as drivers of economic activity and creators of new values is crucial.

The need for continuous research in the field of creating and implementing competitiveness improvement policies and their relevant aspects is indisputable due to their relevance to the national economy and its economic agents. However, it is necessary to point out that the competitiveness as a crucial factor for stimulating economic dynamics, i.e. growth and development, is also followed by certain contradictions. For example, the competition policy, as one of the most important instruments for strengthening competitive environment, is often accompanied by conflicting attitudes. According to many views, competition policy is essential because it is the way to establish uniform competitive conditions, which are, at the same time, an important factor for stimulating new investments. However, there are positions which consider that competition policy offers additional advantages to certain market players compared to their competitors, which affects the lack of interest in increasing the level of production efficiency [1].

At the same time, the adequate concept of economic policy which is aimed at strengthening the competitiveness involves a set of activities aimed at the creation of institutions and their restructuring, in order to establish appropriate policies that would be motivating for economic actors. After all, without adequate support from, on the one hand economic policy and its instruments, and institutional environment on the other hand, it is impossible to achieve the sustainability of innovation-based economic growth. In this way, the active participation of the state and its effect on the way the resources are used is attained, which affects the level of economic success. Therefore, the aim of competition policy is to create conditions for achieving sustainable economic growth and development and improvement of the well-being of the general population.

The basic method of competition policy is the establishment of equal conditions of competition, which supports the creation of adequate investment and innovation incentives in various forms (production, technological, organizational, etc.). Competition policy is the policy that is aimed at supporting and/or creating a competitive market conditions through setting up certain rules and guaranteeing their enforcement, as well as prohibiting certain forms of behavior in the market. In this sense, competition can be considered as a market situation where a single economic entity is not able to significantly influence the general conditions of carrying out transactions in any market segment.

Competitiveness analysis is a synthesis of microeconomic and macroeconomic aspects. In this context, it should be emphasized that macroeconomic factors play a significant role in explaining the growth of competitiveness given the fact that companies create value in accordance with their capability to produce competitive goods and services by applying efficient methods. The position that the low inflation rate, exchange rate stability, balanced public finances and high levels of reserves represent an essential prerequisite for sustainable economic growth and development as indicators of macroeconomic stability is still a subject of discussion. However, macroeconomic stability by itself is not sufficient to ensure economic growth – it only contributes to the more efficient realization of product creation process which belongs to the microeconomic level. This means that the traditional analysis, which uses the concept of competitiveness to explain the economic growth, should be complemented by researching microeconomic environment. As pointed out by *Djuricin* [3], there are no isolated macroeconomic policies or major moves at the

microeconomic level that can improve competitiveness. Only synchronized improvements in various areas lead to an increase in competition, which is a long lasting process.

The term competitiveness is widely used in economics and refers to the products or companies, as well as the industries and even countries. In addition, there is no clear definition of what is meant by the term competitiveness, and according to *Krugman* [5] in case of competitiveness of a country there are some doubts referring to the adequacy of the usage of this term.

The country's competitiveness implies the ability of that country to create and maintain such environment that will be favorable for a more intensive value creation in companies and greater well-being of the population. In other words, the state does not create a new value; rather it helps economic actors to create it. In this sense, the long-term goal of the state should be to create favorable conditions for business operations and to provide support over time, thus creating conditions for strengthening competition between economic agents and hence their competitiveness, as well as the competitiveness of the economy as a whole. *The Global Competitiveness Report* defines competitiveness by taking into account several aspects. In its edition from 1996 the competition is defined as the ability of the state to achieve continuous high growth rates of GDP *per capita*, while ten years later, in 2006 edition of the same report, the country's competitiveness is said to be a set of factors, policies and institutions which determine the level of its productivity. OECD countries indicate in their reports that competition can be seen as the degree to which a country can, under free and fair market conditions, produce goods and services in accordance with the international competitiveness criteria, which will affect the strengthening and growth of the real incomes of its people over the long-term period. According to *Porter* [13], competitiveness is determined by the country's level of productivity and resource usage – such as natural, human, or capital resources, which makes it the key factor for determining the economic well-being of the country and its citizens. The ultimate goal of increasing the country's competitiveness is the growth of its economic prosperity, i.e. the well-being of its citizens.

Competitiveness, as a dynamic process, is manifested in the improvement of products and technologies, creation of new markets, finding new sources of resources, setting up new types of organization and etc. This, as a rule, requires investments. The main incentive for investments can be found in the capacity to achieve economic gain. At the same time, it is necessary to look at two possible situations – the situation where the access to resources is provided, however, there are no adequate incentives for investment and the situation where there are incentives for investments but the resources are not available. The first situation is characteristic of the economies with abundant resource potential, but also weak institutions where decisions on how to allocate resources depend on the mutual relations of certain influential groups. Another situation is inherent in economies with low resource potential, regardless of the quality of their institutions. In other words, there is no mutual compatibility between resource potential and the quality of institutions. In this respect there are four possible options regarding the resource potential and the quality of institutions, as illustrated in Table 1.

Table 1: The combination of the resource potential and the quality of institutions

Resource potential	Quality of institutions	
	High	Low
High	1.1	1.2
Low	2.1	2.2

Based on the above given possible combinations of the resource potential and the quality of institutions, it can be concluded that the combination 1.2 which is characterized by low quality of institutions and high resource potential and the combination 2.1 which reflects high quality of institutions and low resource potential, pose a threat to the efficiency of economic activity. Therefore, the main objective should be to implement appropriate improvements regarding both observed factors and thus position oneself in the field 1.1 featuring high resource potential and high quality of institutions, which is a precondition for improving both the level of competitiveness and overall economic performance.

Porter [13] distinguishes three types of factors that affect competitiveness:

- Basic factors,
- Factors of macroeconomic environment, and
- Factors of microeconomic competitiveness.

According to *Porter* basic factors are natural resources, geographical location and historical heritage. These factors are exogenous and they represent a framework within which the country's competitiveness is being developed. Macroeconomic environment to a large extent determines the quality of the country's performances, as well as its competitiveness. A stable macroeconomic environment and realistic economic policy motivate investment activities which make necessary condition for economic growth. Microeconomic competitiveness is determined by the quality of the microeconomic business environment, the degree to which clusters are developed, the degree of management complexity and efficiency. These are the decisive factors affecting the quality of business strategy and principles of companies' operations and management, which is crucial for the competitiveness of individual companies. This fact is of vital importance since the very competitiveness of a country depends on the competitiveness of its companies. As for the transition economies, microeconomic competitiveness is an important limiting factor to macroeconomic competitiveness. Due to retaining a high degree of state ownership, protectionism in favor of state-owned enterprises is present, which results in a low level of competition. In an environment where there is insufficient protection of the investors' rights, the private sector cannot be properly developed which is necessary for the successful functioning of a market economy and strengthening of competitiveness.

As for the static and dynamic components, productivity represents the decisive factor that affects competitiveness, therefore both the country as a whole and its companies try to initiate and support its growth. Companies see an increase in productivity as a reliable basis for earning higher profits and as for the country – it expresses its ability to maintain a high level of income and satisfactory return on investment. Therefore, in the economic and social development strategies of each country the emphasis is placed on the competitiveness improvement policy. The importance and relevance of this particular orientation is imposed by years of unfavorable state of the economy, which is even worsened by the global economic crisis, since it is impossible to successfully overcome the consequences of a deep recession without improving competitiveness.

In the conditions of the increasing internationalization of economic flows, where the integration processes take on qualitatively different contexts, policy makers are faced with increasingly complex tasks and goals. On the one hand, there is the question how to improve the competitive position of the national economy and on the other hand the most effective way must be found in order to make the best of the international distribution of cash and goods flows which are becoming more and more liberal. The task is even more complicated because due to the impact of globalization, competition is constantly being modified and assumes new forms.

The quality of the institutional environment, as a significant factor in developing competitiveness improvement policies, is of particular importance in shaping the adaptive efficiency of the economy. In addition, competition can be understood as the adaptiveness of the national economy, i.e. its ability to outline necessary structural changes and adapt to them. Competitiveness can also be seen as the country's ability to create and maintain a favorable business environment where companies can continuously create value and the well-being of citizens can be improved. The different combinations of institutional arrangements which regulate key aspects of the economy and society such as property rights, elimination of market failures, macroeconomic stability, social stability and management of social conflicts, ensure achieving a high degree of adaptive efficiency [8] which *North* [10] considers as the key to achieving a long-term growth. Allocative efficiency based on the standard neoclassical Pareto principle is a static concept which includes a certain group of institutions. Adaptive efficiency is associated with the types of rules that govern the ways in which the economy develops over time. Hence, the adaptive efficiency is closely related to the willingness of a society to perceive the significance of knowledge, to encourage innovation, to decide on the risks and take creative activities of all kinds. In all these processes the entire institutional structure plays a key role and decisively determines the willingness of the society to encourage entrepreneurship, innovation and other

activities that are considered adaptively efficient. Therefore, it can be concluded that a flexible institutional matrix is a condition of a proper functioning of an economy. The distinctive characteristics of successful economic systems are flexible institutional structures that are able to adapt to change, which is important because the adaptive efficiency is closely related to the informal norms of the society. This reflects the role and importance of effective rules which are designed to successfully eliminate failed organizational structures and support successful activities. Such institutional structure has a beneficial effect on improving the competitiveness of the economy, which is a prerequisite for its dynamic efficiency and achieving a stable and long-term sustainable growth.

Economic conditions are crucial for competitiveness of the national economy, as well as its competitive market. Only those countries that established most favorable conditions for investment capital can count on making a profit, i.e. the increase of the economic prosperity. This represents such institutional environment where business conditions are the same for all economic actors, and where all economic actors are protected from any form of potential expropriation of property or income. Therefore, it is necessary that the state implements deregulation as to reduce the number of unnecessary restrictions and regulations, but this process must not be mistaken for the establishment of uncontrolled liberal regime. On the contrary, it is necessary to continuously invest efforts in finding reasonable balance between liberalization and regulation. As pointed out by *Stiglitz* [16], the state should have a role not only in saving the economy when markets fail, but also in regulating the market in order to eliminate certain types of market failures. Economies necessitate balance between the role of the market and the role of the state – including a significant contribution of non-market and non-governmental institutions.

Issues concerning the role of government in regulating economic relations once more have an important place in the debate about the many contradictions related to modern economics, especially those associated with the process of globalization, on the one hand, and the causes and effects of the global economic crisis on the other hand. By analyzing relevant aspects of mutual relations between the state and the market, as one of the recent economic issues, we arrive at a certain paradox. Namely, free competition led to the strengthening of the economic agents and the monopolization of the market as a result of the inherent property of capital to constantly strive towards consolidation, which imposes the need to strengthen the role of the state in the economy. This created conditions to increase the role of the state in the economy, since, over time, state emerges as an institution and an instrument of entrepreneurship as a guarantor of transactions, as well as a provider of various privileges to large companies. It can be said that there is nothing controversial about the fact that the state articulates its interests in economy, defines development priorities and implements a strategy to increase the competitiveness of the national economy. By supporting the foreign/international economic activities, as well as the regulation of the domestic market, the state encourages the strengthening of the competitiveness of the national economy, which can only be achieved through active participation in international competition while simultaneously tightening the competition in the domestic market.

With regards to the national economy, every country opts for maximizing the level of economic prosperity as its primary objective. However, high level of economic prosperity of a country does not necessarily mean a high level of competitiveness of its economy. Thus, the following question arises: what are the parameters based on which we can determine whether one country is in a better competitive position than some other country? In searching for the answer to this question, we begin with the most basic indicators of economic growth and development. Basic indicators which are commonly used to expresses the level of competitiveness of the national economy are productivity growth and real per capita income growth rate, together with the basic indicators of international trade: export structure, share in world exports and export growth.

As for transition economies, an essential requirement for the penetration of their companies in the domestic and foreign markets are the qualitative reforms which should enable the establishment of a favorable business environment, which will directly contribute to the

improvement of competitiveness. At the same time, an analysis of the competitive advantages of a particular national economy can contribute to the acceleration of reforms in these countries, because they contain the elements based on which the real position of each national economy in the international division of labor can be assessed. In this way an institutional environment that will be favorable for greater economic success and that would improve the competitiveness of the national economy would be more successfully created. Creating such a business environment is the responsibility of the state, which should contribute to its development, especially in terms of full legal protection of property rights and enforcement of contracts as key institutions necessary for the development of a market economy. This will also set up the rules which will regulate free economic activities.

Factors that determine the level of competitiveness – the case of Serbian economy

Competition provides opportunities for more successful activation of a number of factors and more efficient use of resources due to the effect of market incentives. However, these are often poorly utilized due to the absence of a competitive environment. Efficient functioning of the mechanisms that contribute to creating and fostering a favorable competitive environment at the same time contribute to creating a favorable climate in terms of competitive goods production. Therefore, the improvement of competitiveness as one of the key strategic tasks of each country is given significant attention, and in order to test and improve the competitiveness of the national economy the relevant specialized bodies are formed.

The level of the national economy competitiveness, as well as the competitiveness of its enterprises, reflect the ability of that particular country to produce goods that can meet the needs of the world market in conditions of free competition. This increases the level of well-being of the population and opens the opportunities to realize a long-term sustainable growth and development strategy. At the same time, without achieving stable competitive advantages, which are linked to innovation and human capital, it is practically impossible to increase the competitiveness of the national economy and ensure high growth rates [4].

In order to determine the level of the national economy competitiveness, it is necessary to perform the comparison with the competitiveness levels of different countries, based on the set of relevant parameters. In this way, apart from assessing the current position of the country compared to other countries, strengths and weaknesses of the national economy are determined, as well as the efficiency of the national economic policy implemented in order to strengthen the country's position regarding the international economy.

Country's competitiveness, as well as its ability to create, maintain and develop competitive advantages in conditions of the dynamic international competition, is primarily determined by the level of innovation. Based on these properties, competitiveness can be explained as the country's ability to continuously generate more wealth at international markets than its competitors. Such macro-competitiveness is manifested as the country's ability to independently develop itself in political terms and successfully compete with other countries.

Furthermore, competitiveness of a country can be viewed from two different perspectives: external/foreign competitiveness which indicates the country's position in the world and internal competitiveness as an indicator of the willingness of local companies to develop their operations in the domestic market and compete with other domestic and imported goods. Foreign and domestic competitiveness are closely linked and largely depend on the nature of the state regulation measures in the field of macroeconomic processes. In this sense, the task of the state is to provide adequate political, institutional, infrastructural and other support to its companies in order to make it possible for them to participate in the competition in the international markets on more equal terms. It should be noted that competition in terms of a closed national market is ephemeral and does not contribute to the economic prosperity. The importance of this approach is supported by the fact that the competitiveness of the national economy is determined, on the one hand, by the ability of the economic institutions to establish favorable environment and by the ability of firms and industries to

take advantage of such environment to create and foster sustainable competitive advantage on the other hand. The essence of national economy competitiveness implies an appropriate level of competitiveness of domestic enterprises and their products. Drivers of competitiveness are primarily companies and industries, as only they can accomplish it. State appears primarily as a subject who is responsible for creating an institutional environment as a condition for the establishment of competitive environment.

The economy of Serbia is characterized by a low level of national competitiveness. According to a number of indicators of institutional, investment, infrastructure, innovation capacity and the quality of human and physical capital, the country lags significantly behind the developed countries. Therefore, building up of the high-quality and efficient institutions, which will contribute to encouraging the development of the innovation potentials, based on relying on human capital and attracting foreign technologies is one of the ways to solve the problem of macroeconomic dynamics sustainability. At the same time, it is necessary to adopt comprehensive and consistent national economy competitiveness strategy in order to encourage positive trends, especially in the field of technological and structural changes. In this way, both the economy and the economic actors would be more successfully included in international economic trends and they would more easily adapt to the dynamic changes related to the international competitiveness of the country and trends related to competitive advantages [2]. As a result of these changes, modern economy is dominated by "intensive" factors of international competitiveness – knowledge, human capital, information technology, flexible production and new forms of governance [9].

When it comes to the institutions which support effective competitive environment it is necessary to point out that their formation is not the result of spontaneous evolutionary selection of quality institutions, but the product of purposeful activities of the state. Qualitative ratings of the economic policy results and institutional infrastructure, which are relevant for the formation of a competitive environment, are given by various international ranking bodies and agencies. One of the most common and widely accepted rankings is the international rankings of competitiveness published by the World Economic Forum in the yearly report called *The Global Competitiveness Report* (GCR). The mentioned *Report* ranks countries based on the Global Competitiveness Index (GCI) which represents a synthesis of microeconomic and macroeconomic indicators of national competitiveness. In terms of improving the level of competitiveness, these indicators make the realistic basis for taking appropriate corrective actions in the sphere of the economic system and economic policy. Data on the GCI values and state of public institutions in Serbia for the period 2007-2012 are given in Table 2.

Data on the GCI values and indicators of the quality and efficiency of the institutional framework in Serbia in the period 2007-2012 show that the domestic economy shows continuous decline in terms of competitiveness and the quality and efficiency of institutions and thus has the poorest scores compared to neighboring countries. These data confirm the existence of a positive correlation between the level of economic competitiveness and the quality and efficiency of institutions, which confirms the position that inadequate institutions and policies result in unsatisfactory growth rates which are way below the country's potential.

Table 2: Indicators related to global competitiveness index and institutions of Serbia in the period 2007-2012

	Global Competitiveness Index		Public institutions	
Year	Rank	Score	Rank	Score
2007	91	3.78	99	3.37
2008	85	3.90	108	3.40
2009	93	3.77	110	3.24
2010	96	3.80	120	3.20
2011	95	3.88	121	3.15
2012	95	3.87	130	3.16

Source: The Global Competitiveness Report (editions 2008-2012)

As far as the indicators of the state of institutions are concerned, the emphasis is on the fundamental building blocks of a competitive environment – property rights, especially intellectual property protection, judicial independence and efficiency of legal framework in settling disputes, burden of government regulation, organized crime, protection of minority shareholders' interests – whose scores and rankings illustrate the state of Serbian institutions in the period 2008-2012 (see Table 3).

The analysis of subindexes relevant for assessing the quality and effectiveness of the institutional framework in Serbia shows that the unfavorable situation is particularly evident regarding the definition and protection of property rights (intellectual property rights in particular), burden of government regulation, existence of organized crime and protection of minority shareholders' interests. Unfortunately, remaining subindexes did not receive much more favorable scores. Evidently these are the key economic institutions that represent a decisive stimulating factor for economic actors and which directly determine their (un)willingness to initiate and realize economic activities, as well as their level of productivity that in turn determines their level of competitiveness. The correlation between quality and efficiency of institutions on the one hand and the level of competitiveness and economic performance on the other hand, is a confirmation of the hypothesis that better and more efficient institutional environment decisively affects the improvement of competitiveness and economic performance of the national economy.

In accordance with the above stated facts, one of the key priorities that Serbia faces is strengthening of institutions as key competitiveness and development factors which provide the increase in resource quantity and level of technology, and on this basis produce increase in volume and quality of products and services. The insufficiently built and ineffective legal and institutional framework in Serbia represents a major development constraint. The competitiveness should be improved by encouraging entrepreneurship and innovation in companies, raising the level of knowledge, rapid technological development and enhancing economic and technical possibilities. At the same time, it is necessary to improve the general competitiveness factors such as macroeconomic stability, the quality of the rule of law and economic policy and the quality of legislation that regulate business environment, which implies implementing radical reforms without any further delay. Namely, the set of national competitiveness factors can be improved by implementing a series of reforms in various areas that affect long-term productivity which is a key factor that determines economic growth and economic development. This is necessary since increasing competitiveness represents the surest way to form a stable and sustainable basis for economic development of this country.

Improvement of the existing level of competitiveness should be based on defining the export specialization of the country, the establishment of effective institutions, encouragement of investments, infrastructure and innovation development, reliance on human capital and long-term solutions for macroeconomic dynamics issues. The development based on the activation of innovation activities, human capital development and improvement of the institutional environment, would contribute to establishing appropriate economic structure that would

Table 3: State of Serbian institutions in the period 2008-2012

Indicator	2008		2009		2010		2011		2012	
	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
Property rights	108	3.6	111	3.4	122	3.2	126	3.1	130	3.1
Intellectual property protection	105	2.8	101	2.8	111	2.6	107	2.7	116	2.8
Judicial independence	106	3.0	110	2.8	124	2.5	128	2.4	129	2.4
Burden of government regulation	132	1.9	129	2.2	131	2.2	134	2.3	136	2.4
Efficiency of legal framework in settling disputes									138	2.5
Transparency of government policymaking	82	3.9	86	4.0	97	4.0	102	3.9	111	3.8
Organized crime	97	4.5	109	4.2	111	4.3	107	4.3	118	4.1
Protection of minority shareholders' interests									143	2.6
Strength of investor protection									65	5.3

Source: The Global Competitiveness Report (editions 2008-2012)

in turn enable efficient adaptation to external conditions. Therefore, improving the competitiveness of a country's economy includes the successful resolution of the complex long-term tasks. A country can only count on penetration to the world market if the reduction of production costs, increase in labor productivity and efficiency of foreign trade activities are achieved both in traditional and in relatively successful export industries. The transition economies, where radical system transformations are implemented, can increase competitiveness, primarily by overcoming instability and by effective implementation of the restructuring of their economies, as well as raising the qualitative level of economic dynamics.

Institutional factors that determine competitiveness and economic success improvement

In search of the key factors of a new quality of economic growth, considerable attention is paid to researching the methods to raise the level of economic competitiveness and improve the level of economic success. In this context, it should be noted that the continued development of market institutions is of critical importance for the formation of a competitive environment, as a condition of greater competitiveness. Regarding the Republic of Serbia, the basic concepts of its successful long-term socio-economic development should be based on the project of reforming the economy whose content should consist of four interrelated pillars, which can be called "4 I(s)"– institutions, infrastructure, investment and innovation. The quality of economic growth is determined by mutual relationship of basic conditions: the level of development of the market economy institutions, resource limits to growth, and quality and innovative potential of human capital which is ready for challenges brought about by the post-industrial development.

The institutional structure of the economy is the result of the efforts of the state to establish an institutional economic system, as well as a spontaneous evolutionary selection of the most efficient institutions. The experiences of developed market economies show that it takes time to forma institutions which are in line with the prevailing coordination methods. In terms of developed and consistent market institutions, the use of direct and indirect methods of implementing necessary economic policies would not pose significant limitations to the national economy nor a risk of possible distortions of institutional-economic system. The regulation of the competitive environment includes the following:

- Establishment of basic competitive environment institutions and development of competition;
- Safeguarding of the competitive environment from the inner self-destruction under the influence of pure market mechanisms, which is primarily in the competence of the state anti-monopoly economic policy.

Quality and effective institutions are necessary in every system, since the underdeveloped institutions create fertile ground for promoting regulatory discretion in implementing economic policy instead of promoting appropriate rules, which leads to the problem of competence and genuine political motives of economic policy makers [15]. Underdeveloped and dysfunctional institutional infrastructure is suitable for manifesting opportunism and of corruption at all levels, rather than creating a favorable environment for competitiveness improvement.

Undoubtedly, political obstacles are often present when it comes to initiating and implementing such institutional engineering that would result in a business environment suitable for improving competitive relations. *North* [10], in his writings, suggests that the creation of a stable political system is one of the key implications of institutional changes implementation, since the rules of the economic game are defined within the political system and the political community. Concurrently, as indicated by *Madžar* [7], it is necessary to bear in mind that the society is neither homogeneous nor compact, but rather divided into different interest groups with different levels of social power. Therefore, since different groups see an opportunity to exercise their special interests whenever certain change appears, there are many obstacles to reach an agreement with respect to desired system changes thus hindering their pace and making them eventually fail. In view of the aforementioned facts, an unambiguous and straightforward political commitment is required, as well

as the political stability, in order to initiate and implement necessary institutional changes that would result in the business environment that would encourage improvement of both competitiveness and economic success.

Considering the socio-economic reality of Serbia, it is necessary that the set of institutional reforms becomes one of the main directions of the new economic strategy. This implies the need to transform basic institutional conditions of economic activities in the country such as the system of court proceedings and legal guarantees for contract enforcement, the mechanism to enforce court decisions, the system regulating the relations between companies and administrative authorities – especially those authorities regulating economic activity, the tax system, the definition of the boundaries and shared responsibility for the functioning of the public sector, the status and the framework of activities of state monopolies, status of financial sector entities, status of economic entities and etc. In all these areas there are many unresolved critical issues which cannot be ignored in the process of creating the conditions for dynamic economic growth and the successful modernization of the country.

Institutions, which include specific perceptions of individuals regarding economic activities, and are established in accordance with national and cultural characteristics of the country, make a special structure that is the basis of economic relations in a society. The essence of this system is the institution of property rights whose state determines the character of all other institutions. The institutional structure represents the capital stock of institutions that perform specific functions and ensure the efficiency of interactions between economic agents. The response of macroeconomic variables to the macroeconomic decisions that affect the economic environment in general depends on existing institutions [12]. Hence the conclusion that the low efficiency of the current market reforms is caused primarily by poorly designed institutional transformations whose complexity has been underestimated, as well as the decisions to simply import institutions instead of creating them [6]. The expectations that the formal introduction of market mechanisms and democratic institutions would establish true market-oriented economic relations and therefore adequate competitive environment proved wrong. Quite the opposite, the inefficient institutions were formed which suited the needs of certain business structures and corrupt officials. This resulted in creation of a network of corruption. Due to the enormous influence and sustainability of inefficient institutions, a system of institutional traps (inefficient, however stable institutions) emerged, which eliminated any opportunity for implementing effective measures to prevent infestation of corruption. The result is a low level of the domestic economy efficiency and the absence of any tendency towards economic growth.

Many of the economy's weaknesses are a product of the privatization concept, which was carried out on the "privatization-just-for-the-sake-of-privatization" basis. The privatization process was launched with the idea that economic resources would fall into the hands of those process owners who will be able to apply appropriate business principles where the property would be used in the best possible way. However, these expectations proved wrong in practice, which is also evidenced by numerous unsuccessful and annulled privatizations. It turned out that it was not enough just to brake off with the centrally planned economy. In order to be successful this concept should have been replaced with a new one – the efficient market economy, but this did not happen. Simply put, the privatization process has not led to the establishment of efficient owners, who, guided by the basic economic development logic, should have improved operations of the state owned enterprises which were taken over. There was no strategy for the development of such environment which would endorse competition among different economic agents, therefore in such circumstances it is not possible to speak about an efficient and competitive national economy.

In order to establish an institutional environment that will ensure control and authority in terms of reasonable use of property rights, it is necessary to implement comprehensive and consistent institutional changes at all levels of the economy and the society in order to achieve their complementarity. In political terms, in order to establish appropriate property rights structure that would support functioning of the market economy, it is necessary to establish an institutional system based on the rule of law. Concerning the microeconomic level

it is necessary to create such institutional environment that would be stimulating for:

- Economic actors which would contribute to increasing economic growth due to their economic success;
- Creating conditions for developing competitiveness;
- Restructuring and modernization of companies;
- Growth of budget revenues and reduced pressures on the budget;
- Reduction of transaction costs concerning the transactions between economic entities.

It is necessary that the economic institutions, at the microeconomic level, provide better management quality and more efficient production, expand the investment base for self-financing and increase the adaptability of the economic entities in relation to the market innovation.

It was assumed that competition and competitive environment would be established simultaneously with the beginning of the transition process due to introducing market mechanisms and democratic institutions; thus, the policy of "imported institutions" that focused on the best models characteristic of the most developed countries was largely implemented. Because of this misconception, the economy experienced serious problems relating to the acceptance and survival of such institutions. It became clear that reforms could not simply come down to the adoption of a package of normative acts, without adequate analysis of their adaptation to the existing conditions regulating current business practices. Limiting reforms only to the formation of the formal legislative institutions has resulted in their systematic neglect ion or opportunistic use by the economic agents. It turned out that in an environment of uncomplimentary institutions and such institutional system that is not able to transcend the institutional vacuum, there is a rejection of the newly introduced formal rules that are inconsistent with the existing business practices.

In the sphere of economic policy and legislation, the activities should be focused primarily on creating the conditions for fair and effective competition, which means, above all, more efficient and more effective competition policy. At the same time, it is essential that all stakeholders provide equitable, open and competitive access to government procurement and other budgetary resources, as well as the resources provided by the credit and financial institutions. This is in the best interest of both economic entities and the state. In order to provide easier access to the market, it is necessary to carry out de-bureaucratization of the economy, which will result in the reduction of barriers to starting a business as well as eliminate the essential prerequisites for corruption. In order to reduce arbitrariness and tyranny of government officials, it is necessary to increase the quality of a professional civil service and local self-government services, as well as to clearly define the level of competence in order to reduce the sphere of activities where various forms of potential opportunistic behavior might appear. This is necessary because the efficiency and quality of governance has significant impact on the competitiveness of the national economy as well as the level of economic freedoms.

The strategic paradigm of establishing a competitive economy stands for ensuring the quality of the functioning of institutions, in order to facilitate mutual supportive relationships among businesses, governments, companies and citizens. This includes innovation in the design of system solutions concerning normative regulations, in order to make them suitable for the development of business activities. The full independence of the judiciary from the executive and legislative authorities should also be secured. Establishment of an enabling business environment is related to the radical reduction of administrative barriers, especially concerning those administrative procedures are necessary for starting and running a business, in order to prevent bureaucratic *rent seeking* in the form of bribery and corruption.

An effective instrument of the development of entrepreneurship environment involves, primarily, a set of rules and measures to protect property rights and facilitate economic freedoms as a necessary motivator for starting and running business operations. Full protection and provision of guarantees in terms of the inviolability of property rights and income earned from ownership, make an important motivating factor for the initiation and implementation of innovative activities and production of highly innovative goods, which is a decisive factor in

raising the competitiveness level of companies and the economy as a whole.

The main objective of every modern state should be the establishment and fostering of the institutional environment of the economy in optimum conditions, which will motivate economic agents to improve their marketing activities through continuous innovative self-development, and, therefore realize their competitive advantages. In other words, the dominant task of the state is to create such economic environment where market actors will be motivated and empowered to create competitive advantages, as well as to realize them in market transactions. In this way, it is possible to achieve synchronization of companies' business interests and goals of economic and social development through evolution of the key principles and mechanisms of economic coordination.

The state has a responsibility to create and pass formal laws, as well as to guarantee their enforcement. Depending on the method the government chooses to implement this primary function of the state, such conditions will be created that will either contribute to increased efficiency, or represent an obstacle to the mentioned process. It must be kept in mind that in addition to formal law, laid down by the state, there are a number of informal rules, which are indicators of the quality and acceptability of these formal rules. The more things in common between the informal and formal rules, the better harmonization of formal laws and informal rules. In this way the economic agents that carry out their activities in a competitive environment would more easily accept and respect institutions. As part of a systematic approach, it is necessary to point out the fact that the quality of an environment is essentially determined by the quality of the worst fundamental institution. In fact, it takes a single inefficient institution (e.g. protection of property rights and enforcement of contracts) to reduce the level of efficiency of the competitive environment in general and to devaluate all efforts invested in increasing the quality of other structural institutions in particular competitive environment.

The state has a number of significant instruments at its disposal for the creation of markets and adequate competitive market environment; therefore it is of particular importance for establishing such institutional structures that would support the creation and implementation of the national economy competitive policy. This is especially important for those countries that necessitate radical structural changes, as is the case with Serbia. Underestimation of the active role of competition policy can lead not only to serious disturbances in the system that offers support to economic agents, but also to hindering the development of certain industries and the economy as a whole. Bearing in mind that the country's competitiveness is not achieved in all industries, but only in those that contribute to competitive advantages of the country, the main task of competition policy is the creation and protection of competitive mechanisms in the industries which are able to ensure more efficient use of limited resources. In this regard, it is important to note that although the realization of competition policy objectives can contribute to the realization of the industrial policy objectives, it can also disrupt them. Thus *Picot et al* [11] suggest that the intensive development of major infrastructure components (communication systems, information transfer, etc.) makes possible significant reduction of transaction costs related to the various forms of co-ordination of economic agents' activities. Investments in market research and collection of market information have a significant share in transaction costs. Hence, the state can take over a part of information activities and thus contribute to the reduction of transaction costs. At the same time, *Porter* [14], referring to the effects of the information revolution, stresses that dramatical reduction of the costs related to collection, processing and dissemination of information significantly improve the manners of doing business. In this regard, the successful implementation of competition policy creates the conditions for accelerating the development of the "new economy" industries, which represent a significant objective of industrial policies of many world countries. A number of countries, especially the most developed ones, have institutionalized their attitudes towards the issue of competitiveness by establishing appropriate government bodies whose task is to regularly report on the state of the economy's competitiveness and to promote competition policy. This information can be useful for Serbian policy makers and creators of the economic system.

Conclusion

Competitiveness of the national economy represents its ability to actively participate in international economic relations and, by using its advantages, strengthen its position in the international market and improve the growth of economic and social well-being. An active participation of economic agents (private and state-owned companies) along with the rational use of the available resources of the country and implementation of the effective and efficient macroeconomic policy is necessary for the improvement of the country's competitiveness. Macroeconomic, political, legal and social context of the economy represents a set of regulatory policies and institutions, which creates a common framework for business and government operations, as well as the activities carried out by individuals. The above-mentioned set of regulatory policies and institutions does not automatically create successful business operations by itself, but merely establishes the potential for economic success. In fact, the government and other public institutions do not create value. Value is created in the companies that depending on their technical, technological and organizational competences produce competitive goods and services.

The problem of determining the level of competitiveness of the national economy and the adequate methods for its improvement, has particularly attracted attention and gained importance since global financial and economic crisis and appearance of the significant changes that have occurred in the dynamics of the global economy and economic development of many countries, including those that have significant impact on the global economy. We are constantly looking for the ways to improve the level of competitiveness of the economy in order to be more efficient in terms of the changing environment within which global economy functions. All approaches to the current economic issues point to the crucial importance of the business environment where economic activities take place, which is a product of the institutional framework of the national economy. In fact, there is no doubt that the prosperity of the national economy is of paramount importance to improving competitiveness, which also requires a favorable business environment. The attractiveness of the business environment is even more important because it directly affects the efficient productivity of companies and hence, their competitiveness.

With reference to the above stated, the task of the state is to create an attractive business environment in its territory in order to motivate the companies as creators of value to initiate and organize those types of activities that will improve the level of productivity. Therefore, creation of a favorable business environment must be the primary goal of each country and depending how the government chooses to establish such environment the level of competitiveness and performance of the national economy will be determined. This paper confirms the hypothesis that high-quality and efficient institutions, by creating a favorable business environment, decisively influence the improvement of competitiveness and economic performance and success of the national economy.

Given the level of their economic development, majority of transition countries, as well as Serbia, opt for institutional environment and entrepreneurial potential as the key elements of competitiveness improvement. By creating stable and consistent institutions, the conditions for positive motivation of entrepreneurial activity, innovation, savings and investments will be established. It is therefore necessary to create institutional and systemic preconditions that will facilitate improvement of the competitive operations, both in domestic and international markets, which will by the force of their necessity, in an objective way verify the success of the business. Hence, the importance of the institutional environment for improving competitiveness and economic success becomes essential for all development phases and economic conditions and in that respect will also be the subject of future research.

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