

# Ekonomika preduzeća



**Serbian Association of Economists  
Journal of Business Economics and Management**

- Ljubomir Madžar  
INSTITUTIONAL DYNAMICS AS A DETERMINANT OF ECONOMIC DEVELOPMENT  
- WITH REFERENCE TO CHINA -  
163
- Žaklina Stojanović and Katica Radosavljević  
FOOD CHAIN, AGRICULTURAL COMPETITIVENESS AND AGRICULTURE POLICY:  
A CASE STUDY OF THE SERBIAN RASPBERRY PRODUCTION AND EXPORT  
174
- Bojan Ristić and Veljko Mijušković  
IMPROVEMENTS OF THE COMPETITION PROTECTION POLICY IN SERBIA:  
SET OF RECOMMENDATIONS BASED ON EXPERIENCE OF SELECTED COUNTRIES  
183
- Renata Pindžo and Ivana Lončar  
QUALITY ANALYSIS OF HOTEL SERVICES USING SERVQUAL METHODOLOGY  
199
- Katarina Đulić and Tanja Kuzman  
OPINION OF SERBIAN STUDENTS REGARDING KNOWLEDGE ECONOMY  
212
- Miljko Arsić, Aleksandra Nojković and Saša Ranđelović  
WOULD ECONOMIC RECOVERY IMPLY FISCAL STABILIZATION IN  
SERBIA?  
222
- Jelena Perović and Milena Đorđević  
RESOLUTION OF COMMERCIAL DISPUTES THROUGH ARBITRATION  
AS A CONTRIBUTOR TO IMPROVEMENT OF BUSINESS  
ENVIRONMENT IN SERBIA  
238
- Snežana Miletić and Savka Vučković Milutinović  
FINANCIAL REPORTING AND TAX IMPLICATIONS OF REAL ESTATE  
LEASE  
256
- Jelena Galić  
SERBIAN BANKING SECTOR:  
RISING OPPORTUNITIES ON THE HORIZON  
273

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# EP **Ekonomika preduzeća**

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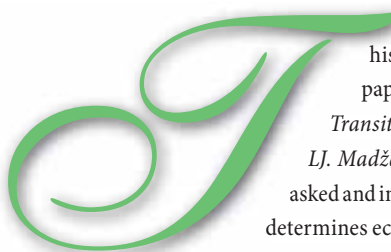
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This edition of *Ekonomika preduzeća* is composed of nine papers structured in three sections. In the first section *Transition and restructuring*, the introductory paper by Prof. *LJ. Madžar*, offers a possible answer to one of most frequently asked and in the most variegated ways answered questions, i.e. what determines economic progress. He analyses the role of institutional change in economic development of a country. Using the experience of China, he shows how this dynamic force affects resource flows bringing about the evidence of spectacular development. Prof. *Madžar* wisely remarks – the key explanatory factor for such an amazing success is the change itself.

The second paper in this section written by *Ž. Stojanović* and *K. Radosavljević* provides the analysis of Serbian raspberry food chain and its role in agribusiness development in terms of competitiveness and export increase. The authors give an overview of the current state of the raspberry food chain, point to the main obstacles to further development of the sector competitiveness, predominantly regarding policy issues, and give recommendations for improvement.

In their paper *B. Ristić* and *V. Mijušković* offer recommendations for enhancing the system of competition protection in Serbia, which are possible to implement in a relatively short time framework. They provide comparative analysis of the world's leading systems of competition protection as well as ex-transitional countries comparable to Serbia that have made visible progress in this area.

R. Pindžo and I. Lončar deal in their paper with the applicability and scope of SERVQUAL methodology in testing quality of hotel services. They present the approach to measuring hotel guests' expectations and perception necessary to calculate SERVQUAL gap and conclude that it is the best method for detecting the absence of quality so far.

In the last paper of this section *K. Đulić* and *T. Kuzman* present the results of their research on Serbian students' opinion regarding knowledge economy. The authors show that the concept of a knowledge economy is not well-established and understood in Serbia. They argue that, in the world where the future economic growth will stem from industries that rely on knowledge, new ideas and innovation, these findings represent a big policy challenge and, accordingly, they also propose a set of recommendations.

In the *Tax and law* section, *M. Arsić*, *A. Nojković*, and *S. Randelović* try to resolve the dilemma whether the economic recovery would be sufficient to reduce the problem of large fiscal deficit in Serbia. The authors demonstrate that the largest portion of the deficit is structural by its nature. Consequently, economic recovery will not reduce fiscal deficit substantially, which is why additional consolidation measures will have to be introduced.

The second paper, by *J. Perović* and *M. Đorđević*, deals with possible ways to improve business environment in Serbia from legal perspective, focusing on arbitration as a way to resolve commercial disputes. The authors analyze contemporary arbitration trends with special emphasis on Serbian legislation and developed practice and provide comparative analysis of advantages and disadvantages of arbitration as a dispute resolution mechanism.

In their paper *S. Miletić* and *S. Vučković Milutinović* explore financial reporting and tax implications of leasing. They explain why current financial reporting for leases has been subject to critiques and propose future regulation changes that could reveal whether entities use leasing as an instrument of shaping financial report or as business transaction with economic purpose.

In the *Finance* section, *J. Galić* analyzes current situation and future prospects in the banking sector in Serbia in terms of its viability and performance. The author suggests that the first wave of the crisis has been survived without any significant performance deterioration but the future of the banking sector in Serbia relies on the recovery of the real sector, i.e. on the economic policy measures aimed at reviving economic activity in the forthcoming period.

**Prof. Dragan Đuričin**, Editor in Chief



# THE 2013 SEE MANAGEMENT FORUM AND ELC CONFERENCE

The financial crisis SEE is facing today requires new mindsets

The 2013 SEE Management Forum and the 11th Conference of the European Leadership Centre, held on May 30-31, 2013, in Bled (Slovenia) and organized by IEDC – Bled School of Management, the Serbian Association of Economists and the Croatian Association of Economists, was the platform for sharing views of respected speakers and more than 120 managers from the region and beyond (altogether 20 countries were represented). The Forum addressed some of the main issues that European leaders are currently struggling with, like financial, competitiveness and leadership crisis. The conclusion of the fruitful discussion, encouraged by the challenge „The European Financial and Competitiveness Crisis: Can Business Leadership Find the Way Out?“ is that the financial crisis we are facing today requires new mindsets.



"Each crisis is the time of destruction, but also the time of great opportunity that we cannot afford to miss", said Prof. *Dragan Đuričin*, Forum Chairperson, in the keynote address. He added that many business leaders blame their government for thwarting significant change initiatives for reforms, growth and reindustrialization. But, the main challenge for business leaders is simply: "Are we going to patch up our problems or are we going to be able to reinvent our strategy, business model and ourselves in such a way that we will move forward and create new and better ways to live our collective lives". Prof. *Đuričin* then recalled that "great ideas are the seeds of optimism", but they must come from all parts of the society.

Prof. *Danica Purg*, President of IEDC – Bled School of Management, pointed out the importance of the true leadership, which is actually based on a high level of identification with the mission and values of the organization and capability to perform in new, often unknown environments, with a high level of "empathy" for other cultures.

*Aleksandar Vlahović*, the President of the Serbian Association of Economists and Dr. *Mladen Vedriš*, representative of the Croatian Association of Economists, outlined the need for regional cooperation and joint initiatives.

"Youth unemployment (15-24) and long-term unemployment (more than 12 months) have increased strongly", stressed Prof. *Michael Landesmann*, Director of Research at the Vienna Institute for International Economic Studies, who compared emerging market economies. "International financial markets integration can strongly accentuate the possibility of external and internal imbalances", he added.

The first panel was devoted to the ways of rethinking strategy and reinventing business models in the new context. The panelists also tried to identify the core competence for new set of driving forces. Prof. *Derek Abell* (ESMT) highlighted that the answer lies in "getting yourself into the right mindset of collaborative instead of siloed leadership". Prof. *Tihomir Domazet* (CIFA) pointed out that "bearing in mind a difficult situation in SEE region, the crisis management is a new paradigm", while *Izdok Seljak* (Hidria) has always opted for innovation in all business segments.



The second panel, titled “Audacious ideas to avoid the insolvency and competitiveness trap” was moderated by Dr. *Ana Trbović* (FEFA). The representatives of the corporate sector, including *Janez Škrabec* (Riko), *Mirko Galić* (Agrokor) and *Saša Vitošević* (Global Seed), shared their experience in dealing with financial crisis and their ideas about how to stay competitive and reinvent value in a time of dramatic technological and social change and hyper competition.

The innovation was the theme of the third panel. The panelists, led by Prof. *Peter Baloh* (IEDC), agreed that the innovation is key word in European politics (new approach in leading and managing our society), business (new practices of handling economic resources), and social organizations (new ways to be entrepreneurs). Panelists were *Gazmend Haxhia* (ASG Group), *Darko Budeč* (Buck), *Ivan Vidaković* (Microsoft Croatia) and *Igor Verstovšek* (Cosylab).

Keynote speeches on leadership challenges at the end of first day were given by Prof. *Pierre Casse* (IEDC, MSM Skolkovo) and Prof. *Paul Claudel* (IEDC, University of Aix-en-Provence).

Second day of the Forum titled “Alignment of Institutional Setting and Corporate Governance with Leadership” was opened by introductory words of Forum Chairperson, Prof. *Dragan Đuričin* who explained that “the crisis we are facing is not cyclical, but a structural one”.

In a keynote address *Marko Kranjec*, Governor of the Bank of Slovenia, said that we are now paying the price of excessive optimism and unrealistic expectations. “We will not be able to solve problems in the short run. A particular problem is a high share of non-performing loans, which is especially present in state banks. This is a difficult time for Slovenia and we must do whatever it takes to get out of the crisis”, said Mr. *Kranjec*.

*Slavko Carić* (Erste Bank Serbia) moderated the first panel devoted to the revitalization of mature businesses and the new ways of financing. His interlocutors on this panel *Zoltan Aldoltt* (INA), *Sybil Svilan* (SID Bank) and *Anton Balazić* (Mercator) called for “the influx of fresh energy” and highlighted that “the most important mission of the SEE region is to create new value and establish new synergies”.

The second panel was focused on the discussion about sustainable development and the green economy. Dr. *Nadya Zhexembayeva* (IEDC), the moderator of the panel, had very engaging conversation with *Craig Harwood* (Coca-Cola Greece), *Justin Sherwood* (Coca-Cola), *Matevž Slokar* (S Project) and *Peter Charles Mackelworth* (Blueworld Institute). They concluded that the principle of “doing good” has to be at the heart of any business strategy, as well as that the change of mentality and education of leaders are “prerequisites” for sustainable development.

“Effective corporate governance is based on a long-term vision, trust, sustainable development, but this is impossible to achieve without respecting ethical principles”, said Prof. *Arnold Walravens* during the last panel of this year’s SEE Management Forum. The other panelists, *Zvonko Ivanušić* (Sava Re), Dr. *Ana Trbović* (FEFA) and *Aleksandar Marković* (Metalac) accepted the challenge of discussing the main issues of corporate governance, and expressing their views on new morality and ethics.

The fifth SEE Management Forum was a feast of outstanding and applicable ideas. The organizers managed to bring together bright and relevant people from business ecosystem, politics and academia.



A School with a View





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# INSTITUTIONAL DYNAMICS AS A DETERMINANT OF ECONOMIC DEVELOPMENT – WITH REFERENCE TO CHINA –

Institucionalna dinamika kao  
determinanta privrednog razvitka  
– sa osvrtom na Kinu –

## Abstract

It has for quite some time now been recognized that the rhythm and strategic directions of economic development cannot be explained by resource availability as the latter is not a precondition of economic development but rather its result. Thus institutions have been carefully examined as the nexus of determining forces, together with political and broader social factors affecting perceptively institutional evolution. It soon transpired that another closely related dynamic force plays a significant role in determining the development trajectories. That force is the institutional change which affects directly the resource flows and dynamic tendencies and at the same time mightily motivates economic agents with strong effects on both mobilization and allocation of resources as a predictable consequence. The proposed theory is illustrated and preliminarily tested on the example of China.

**Key words:** *economic development, resource endowment, institutions, institutional change as a growth factor, political and social constraints on institutions, China*

## Sažetak

Dugo je već poznato da tempo i strateški pravci privrednog razvoja ne mogu da se objasne raspoloživošću resursa budući da ona nije preduslov razvitka nego u osnovi njegov rezultat. Stoga su institucije bile brižljivo ispitivane kao bokor opredeljujućih silnica zajedno sa političkim i širim društvenim činiocima koji vidno deluju na institucionalnu evoluciju. Brzo se ispostavilo da u određivanju razvojnih trajektorija značajnu ulogu igra jedna druga dinamička sastavnica. Ta sastavnica je institucionalna promena koja neposredno utiče na tokove resursa i dinamičke trendove i u isti mah silno motiviše privredne aktere sa jakim posledicama i po mobilizaciju i po alokaciju resursa kao svojom predviđivom posledicom. Predložena teorija je ilustrovana i preliminarno testirana na primeru Kine.

**Cljučne reči:** *privredni razvoj, raspoloživost resursa, institucije, institucionalna promena kao razvojni činilac, politička i socijalna ograničenja na institucije, Kina*

## Introductory remarks

The conventional approach to explaining the mechanics and sources of economic development has been framed in terms of resource availability and the presence of mostly material factors accounting for variously generated growth impulses. Scarcity was a key concept in identifying the factors thought to play the decisive role in determining

<sup>1</sup> The author is an associate of the Institute of Strategic Studies and Development of the Alfa University in Novi Beograd. The extraordinary quiet, perfect peace and very, very friendly relations with people around have, as usual, greatly contributed to the stimulating atmosphere in which writing is somewhat less burdensome than it usually tends to be.

the rhythm of growth and its direction in a dynamically stable environment. *Dynamically stable* is defined by a set of conditions under which the process of growth can and would proceed at a constant rate and be sustainable for an indefinite time. Having predominantly dealt with underdeveloped economies, whose salient characteristic was the scarcity of capital and relatively large populations, the incipient theories and accompanying models dealt with one-factor production functions. That led to the resulting growth models dealing typically and for those conditions to some extent justifiably only with capital as the unique constraint on the volume of production and the rate of growth [7, pp. 70-82], [7, pp. 154-194].

As the scope of theoretical conceptualizations broadened and the set of examined economies expanded, the theories and related models diversified in several directions and amalgamated into an incomparably richer, more comprehensive and visibly more realistic picture. The principal directions into which the families of models evolved were (1) incorporating two basic production factors, capital and labor, and soon thereafter branching into multifactor growth models, and (2) moving from the incipient one sector into more complicated and hopefully more realistic multi-sector dynamic models. One can speak about heyday of the elegant, highly formalized and fully rigorous mathematical growth models. Batteries of such models are developed with extreme scrutiny in an amazingly large number of excellent books, each of which is worth reading and rereading, as well as keeping permanently in the most selective personal libraries (e.g. [12], [15], [6] and, more recently, [2]).

These models and theories embodied in them dealt extensively with systems with two production factors, but worked out all fundamental issues associated to underlying features of the complex dynamic processes described and analyzed by these sophisticated methodological tools. Such issues were the existence of solutions, their stability, feasibility of various patterns of movement, efficiency of resulting growth trajectories [6, pp. 311-349] and even optimality of such dynamic paths [6, pp. 352-417]. It is worth emphasizing that the mentioned fundamental characteristics of growth paths were carefully looked into and assiduously worked out for significantly larger

and more involved multi-factor and multi-sector models [2, pp. 92-136], [6, pp. 202-307], [15, pp. 114-126], so that the grand analytical picture of sophisticated and refined theoretical constructions was in a way fully completed. Exquisite contributions to that literature were also given by *Branko Horvat* [10], who worked out basic elements of abstract technology and made particularly valuable additions to the theory of technical progress.

The models depicting the interdependencies between production factors and the resulting outcomes of economic processes, between inputs and outputs, will never be redundant and never futile. The connections between two sets of the basic economic variables will preserve their analytical relevance under all imaginable research agendas. Multifarious revealing economic conclusions will permanently be derivable from formalized and rigorously proven findings about numerous regularities connecting the two sets of the key economic indicators. It is true, however that the analysis cannot stop at establishing these fundamental interdependencies. Rather, that seems to be the place where meaningful examination of the forces accounting for growth should in fact start.

There are certainly much deeper and more fundamental layers of variables and their interdependencies. This may turn out to be the place where more foundational and perhaps ultimate determinants of the grand economic dynamics lie. That is also the nexus of interdependencies where one might hope to find the effective levers of economic change which could be instrumental in regulating development process and preventing its most conspicuous harmful deviations. Small wonder that the next natural step in developing the theory of economic development turned out to be institutional arrangements and their causal factors in the political spheres of the examined societies ([2, pp. 237-260], [2, pp. 399-415] and the monumental and unrepeatable *Acemoglu* [1, pp. 109-141] and [1, pp. 781-857]). The next unavoidable step in reviewing the deeper going layers of hierarchically placed growth determinants is to look into institutional arrangements, then, even deeper, into political factors as determinants of institutions. Not even that could be taken as an end of the enquiry. Behind or, rather, under political conditioning of institutional changes there could possibly be discerned



still more removed general social groupings and their interrelationships. These certainly represent a diffused and difficult to capture collection of influencing factors accounting at least partly for the political blocs themselves and their multifaceted interrelationships. The road to understanding economic development is long, fraught with uncertainties and extraordinarily involved. In this paper it will end with institutional dynamics, a topic which does not seem to have been properly recognized so far, not to speak about its thorough investigation.

### Towards more fundamental development drivers

Deeper layers of the growth determinants are foreshadowed in the preceding section of this paper. They have been adduced to serve as a reminder that explanations of economic development and more broadly conceived systemic dynamics cannot rest on the sheer resource availabilities as explanatory factors of the movement of the major macroeconomic aggregates through time. The reason is quite simple despite the fact that it had not been recognized over a long enough series of decades in not such a distant past. Namely the quantities of available resources, rather than being the sources and prime movers of growth are preponderantly the *results and consequences of development*.

True, there are a number of exogenous circumstances given by nature, such as geographical location or possession of particularly valuable natural resources such as oil deposits, but (1) they are far from being particularly influential in arriving at a high growth rate, (2) there are numerous counterexamples of richly endowed with resources and yet unsuccessful in the development process as well as those highly successful despite being deprived of any natural advantages worth speaking of, and (3) there are quite a few countries, such as those in Arabian Gulf, where abundance of resources not only does not contribute to development *along the lines of modernization* but in fact acts as a hindrance in spite of earning huge income thanks to massive exports of products based on these resources; not even the sustainability of large exports over long stretches of time has produced truly modern development which

could be taken as reasonably sustainable. One might add one more factor (4) consisting in the fact that even the conventional natural resources, such as agricultural land or mineral deposits, acquire full economic value only after, and under condition of, significant investment necessary to open such resources and bring them to profitable uses.

The basic fact that resource availability, consisting mainly of produced resources, cannot be taken as a fundamental source of growth derives from another plain truth that what really matters from the point of view of the long run economic development is not what quantities and qualities of resources economic actors have at their disposal but how they use and what they do with whatever resources they have to deal with. In the long run only those countries come out as successful in which decision making units *use the existing resources "wisely"*, i.e. allocate them to the options on which they produce the highest economic effects. This has to do with savings and efficient investing whatever is saved (or borrowed) and with all kinds of entrepreneurial undertakings through which various innovations are created, new products and processes are discovered and, in short, ways are found to create more and more value on the basis of given resources or, alternatively, to deliver a given value by deploying and consuming ever smaller quantities of resources. Let it be added that *economic freedom*, as well as all other types of freedom, does play in this context a crucially important role, turning out as a decisive productive force and development driver at the level of economies and societies considered as immense and incomprehensibly complex wholes. Economic freedom is, at least at the level of economic application and business practice, the ultimate source of technological advance and the effective way for the system as a whole to quickly learn and to successfully apply the manifold findings of that generalized learning.

It will suffice just to mention in passing the features of institutional order determining the ability of the system to learn collectively and, additionally and independently, to mobilize resources and to allocate them efficiently. One such feature – economic freedom and other liberties – is just pointed out in the preceding paragraph in view of the fact that only reasonably free societies can account for a

number of potential innovators to be as large as possible – unequivocally larger than in alternative arrangements – and for them on the average to be more creative than under any competing regulative regime. The other important characteristic is the *Hayekian* [9] use of (dispersed!) knowledge in the society.

Associated to it is the quantity and quality of information generated by a particular system and the channels through which it is being transmitted, as well as the ease with the streams of information flow through the system. The distribution of decision making authority over the sets of agents, and even over the individual agents themselves is yet another important feature of the institutional order, dealing with the degree of centralization within the system but certainly not entirely reducible to it. The last and probably the most important feature of a systemic arrangement coordinating economic decisions and regulating the resulting flows of tangible results is what *Neuberger* used to call the incentive structure. This structure is about tying most closely efforts and rewards, the consequences of decisions with the authority of making them and, intimately associated to it, this structure is about a sound, purposeful institutionalization of risk. It all comes down to having an environment in which everyone will be able to reap freely the fruits of his decisions and to bear the consequences of whatever he has freely decided.

This last systemic trait is evidently of key importance. It obviously has much to do with mobilization of economic resources: knowing that he will be unimpairedly rewarded for whatever effort he makes, everyone will deploy his capacities to the maximum and whatever potential is available will, most likely, be put to good use. This characteristic of the institutional set-up will also motivate to the maximum the choice of the most efficient options for engaging resources and spending on whatever brings positive economic effects. It is thus of crucial significance for both mobilization and allocation of resources.

It turns out that the key to successful development is not to work or hope for the largest possible resource endowment – it is largely the result rather than the precondition of development – but to look for socially purposeful, economically efficient set(s) of institutions

which will motivate the economic actors and people at large to activate to the utmost whatever may turn out to be useful as any kind of resource and to see to it that these resources are not only channeled into the most profitable uses but also continuously reshuffled among the alternative uses as impact of exogenous factors sets in and as relative profitabilities of such uses evolve in time. The bundle of institutions is what matters, not the quantities of whatever production factors and financial means are available to individuals and their variously defined collectivities. This is best seen from the disastrous failures of foreign assistance throughout the world [5, pp. 345-367]. It is safe to assert that there is not a single instance of a country having been successfully launched on a growth trajectory through alien resources, i.e. those generated out of its own economy. A delusive conclusion might be drawn from this simple proposition that the institutions are the right element to rely on in search for stimulative conditions of successful – sufficiently rapid and sustainable – development. It inescapably revokes to remembering another similar illusion in the past. When technological progress was discovered as the principal driver of economic advance and many countries diagnosed as technologically far behind the relevant frontier, it was simply suggested that they should rely on the huge backlog of unutilized, yet widely available technical knowledge and relatively quickly join the club of the most developed countries. The recipe did not work and it has been long and widely known why.

A similar delusion may come out of the proposition that the “right” institutions lead to desirable speed and pattern of development. Such institutions have been at work and developing in many countries, they are well known and if not sufficiently known, they can be learned rather fast, so that they may be implanted in the foreseeable future. As it has been learned from the widely found and abundantly accumulated experience, the transplantation of the “desirable” institutions is not a feasible undertaking and severe constraints on the road of institutional development have to be faced. What is achievable in one country may not be feasible in another. To this further, as it were derived, set of constraints we turn in the next section.

## Political constraints on institutional development

The idea of the successive layers of constraints in the epochal task of developing overall organization of a society was introduced in the first section. Despite the perception and even cognition of the “efficient and desirable” institutional arrangements, their introduction may not be feasible because there is a further, perhaps adjacent to economic institutions layer of constraints which make it impossible to implant systemic mechanisms which could prove productive in terms of development potential and actual growth achievements. It is easy to see that one encounters here the political constraints to economically beneficial and even needed institution building. It is not possible to understand development of the economies without reliable and rather complete insights into the institutional machinery of given societies and it is further impossible to comprehend the uneven and highly imperfect institutional development without delving into the political systems of the analyzed societies. Fortunately, economists have become aware of the need to go far beyond the economic variables alone to understand economic change as such, and of the necessity to analytically penetrate political determinants of institutional evolution and even of the imperative to cut through wider social tissue in search for the influencing, if not determining, factors of the political interrelationships themselves. A recent book [5, pp. 171-309] has gone far in this direction and advanced significantly our understanding.

The simplest way to approach the constraining influence of political inhibitory factors on development of institutions is to observe that no society is homogenous and compact and that it is regularly partitioned into distinct groups with differentiated interests and visibly varying amounts of social power. General social consensus can only, if at all, be achieved about the most fundamental tenets of the “rules of social game”, it being understood that about less fundamental issues manifold interest conflicts may and are likely to be encountered. The lack of agreement is by itself an obstacle to reaching collective consent to desired systemic changes. More than that, various groups look for and see in any proposed change their particular

interest and it is almost impossible to imagine a change to which at least some groups, no matter how small and few in number, will not be opposed. The dissenting groups are the source of resistance which is occasionally prohibitive and most of the times just one component of cost of the proposed change and a part of the answer why the change unfolds slowly, if at all.

It is apposite to weigh the particular(istic) interests of various groups in connection with their social power. Obviously the most constraining and the most damaging combinations are the ones combining the conservative (in the sense of opposing to change) interests and significant social power, “significant” meaning sufficient to block the change and even to prevent it for a considerable time. It is a trivial matter of simple definition to find out that no change, how ever desirable from whatever “social” point of view, will ever be realized if there is just a single group opposed to change and powerful enough to obstruct it. The impeding circumstance is that different groups manage to adjust to exogenously given circumstances to widely different degrees and that the best adjusted become the most powerful. Regrettably, those who adjust the most successfully are not only the most powerful but also the most interested in preserving the *status quo*; the motivation to prevent the change, no matter how beneficial, goes hand in hand with the ability to circumscribe it or to stymie its execution.

Society can be looked at as a large and complicated nexus of interacting groups. As the number of players is limited the interrelationships are complicated and unpredictable. Unlike the conventional analysis of the market outcomes, the stable interdependencies cannot be identified and the usual equilibrium configurations cannot be analytically established. The theory of (involved) games rather than the standard theory of equilibrating processes is applicable in such markedly dynamic and highly uncertain set-ups. A number of unfavorable conclusions follow with three of them perhaps worth mentioning. *Firstly*, the outcome is hard, close to the impossible to predict. *Secondly*, out of many possible outcomes hardly any one has a genuine and certain normative significance. At last, *thirdly*, none of the interacting players has control over final outcome at the level of the system as a whole. The usual procedure,

the one to which the economists are so much accustomed and so firmly attached, of giving recommendations loses appeal and becomes almost senseless: there is no one to direct advice to. Evolution of institutional order becomes a matter of spontaneous and largely unpredictable interactions, without any determinable objectives to be reached. It follows that it becomes hardly possible even to forecast changes in institutions, not to speak about control or steering of their transformation.

Let it be just mentioned in passing that not all institutions are subject to social engineering and that some of them are truly uncontrollable, account being taken of just elaborated generally low level of manageability of institutional adjustments. The case in point is the large, poorly structured and not easily identifiable set of *informal institutions* [13, pp. 155-63]. Informal institutions are heterogeneous and extraordinarily versatile: social values and ethical standards, national myths, time-honored habits of doing things in the style of ancestors, collective memories... Not infrequently informal institutions are a direct obstacle to adopting solutions tested and proven efficient in other countries. There are other cases in which the alien institutions can be transplanted, but their efficiency is seriously impaired through the adverse influences of the informals. In such cases solutions proved rational elsewhere may not be adopted in the observed country for simple reason of low or altogether lacking efficiency. The arrangements successful in one country do not have to be workable in another country, and indeed for reasons of wide differences in culture, which is just shorthand for the collection of informal institutions. That amounts to a truly large part of the answer to the question why so many obviously favorable and evidently advisable policy shifts and analogous changes never get implemented.

An ameliorating circumstance pops up nevertheless. Not all groups are completely devoid of any controlling powers and some of them are in fact in the possession of governmental authority wrought out at the immediately preceding elections. The electoral victory may have been won on the basis of some political program which to some extent binds the incumbent group and forces it to do certain things in, so to speak, a broader social interest.

More importantly and metaphorically speaking, how ever it is defined, social interest or public good may enter as one of the arguments of the incumbent's utility function. To the extent that pursuing broader social aspirations may strengthen support of the voting public at the next electoral clash, public interest, together with the now scrapped corresponding theory, may regain some significance and the institutional development may reenter into the rulers' endeavors as a meaningful objective. However, this effect is likely to be weak and more often than not it will practically vanish. The more so as the semblance of the objective function of the directorate is distorted in the well known way. *Firstly*, what pays politically diverges widely from what is beneficial from the point of view of the society or, more accurately, from what most individuals would be able to accept as reasonably tolerable if not quite satisfactory. *Secondly*, the rulers' time horizon is limited and all they purport to produce is heavily skewed towards the short run. To this one might add the high discount rate of the electoral body and its sensitivity to short run benefits with proverbial ignorance for incomparably higher costs regularly pushed into a somewhat removed future. There are many more complications in the political system and even in the broader social fabric encompassing it and surrounding its major segments [1, pp. 799-865], but they will be skipped here for lack of space.

Given the fact that economic performance is highly dependent on institutions, and that they, in turn, are decidedly impacted by largely uncontrollable political relations and practically uncontrollable changes, it becomes clear why it comes close to impossible to transplant institutions which elsewhere have proven to be efficient. It also vividly transpires that the true and ultimate destiny of most (all?) economies lies far outside of these economies themselves. Taking into account that most ultimate causes of systemic changes are practically uncontrollable, one is led to another discouraging conclusion: much of what happens regarding the rhythm and directions of economic development is a matter of exogenous, largely stochastic components or, to put it simply, a matter of sheer luck. The rarely met sunny side of this gloomy picture is that occasionally a set-up may appear in which the far-reaching changes may be affected, usually starting with political turnarounds,



extending into institutional shifts and resulting in the glorious upsurges of the inordinately quick and protracted growth, unexpectedly sustained over long periods. The example of China, with which this paper will terminate, is a case of point demonstrating what typical attributes of usual macroeconomic configurations have to vanish for such rare growth miracles to happen.

### **The big point: The speed of reform and the jump from the initial institutional set-up as the generators of fast development**

Economists are used to interpreting various economic phenomena not only in terms of absolute magnitude of underlying macro aggregates and in terms of their variously defined ratios, but also in terms of their rates of growth. Thus, it has been repeatedly admonished that the absolute magnitude of the Serbian external debt, and not even its ratio to the GDP, is not sufficient and reliable indicator of the burden of indebtedness; the speed of its growth, as well as of the change of the said ratio has also to be taken into account [8]. In the same vein, in analyzing relative positions of various regions within a given country and the position of the individual countries within the broader, internationally defined regions, not only the levels of *per capita* and other indicators have been observed and followed, but also the levels and the dynamic tendencies of their rates of growth [14, pp. 11-30], [14, pp. 81-99]. It goes without saying and is widely accepted without expanded elaboration that the same, say, difference in the income *per capita* between entities *A* and *B* in favor of the former has entirely different meaning and vastly diverging policy implications if *B* has significantly higher rate of growth than if the rates are equal or even if the rates differ to the detriment of *B*. Taking account of the rate of growth puts the observed entities into entirely different perspective.

It is rather strange and certainly unsatisfactory that the same type of reasoning has not been applied to the issues of institutional change. In analyzing the sources of growth impulses economists have almost unexceptionally been taking into account only the given systemic configurations, examining the possible effects of various configurations regarding motivation, information generating, the use of

knowledge, distribution of decision-making authority... No heed was taken of the changes of these arrangements. These changes are, however, extremely important and in certain situations may be more influential and generate more powerful impact than the structure and functional characteristics of the arrangements themselves.

To begin with, these changes call for adjustments and introduce a peculiar dynamics into the economy quite independently of whether they improve or worsen the allocative efficiency of the arrangements. The necessity of adjustment introduces, on the one hand, the cost of the adjustment and the uncertainty regarding the direction of change and the proper degree and the velocity of the adjustment. But, on the other hand, it shakes up the systemic structures and forces economic agents to act and move; this may lead to new entrepreneurial ventures and freeing of energies which may prove as an entirely new growth determinant. It may also, and in most cases is quite likely, speed up technological development and raise the dynamic efficiency of the economy. The other force at work is the nexus of expectations. Institutional shifts or steady and persistent tendencies of change may significantly increase the level of business optimism and spur up the “animal spirits”. The result may be a marked increase in the mobilization of resources – an augmentation of the degree of capacity utilization and the expansion of employment – with precious additions to the GDP. Of course, the changes do not have always to be for the better, but those undertaken by agents authorized to formulate public policy are more likely than not to be in line with the overall systemic advance.

One thus comes to the conclusion that the change of the system itself pops up as a powerful generator of the growth impulses, working through the modification of the motivation structure of a given society. Institutional change forces the change in the real sector either through the unavoidable adjustments or via simple fact that change in the rules may create and reveal profitable alternatives for rather different uses of resources. It might be useful to distinguish between the phenomenon of change as such and the distance which arises as a consequence of change between institutional constellation behaving before the change and the new one which results from

such shifts in the rules. The very difference between what is arrived at through such change and the initial, starting state, definitely abandoned as a result of it, may act as a strong source of motivational impulses and thus of the developmental performance of the economy.

It follows that one might postulate that the growth potential of an institutional set-up depends not exclusively on its proper structural characteristics and its functional capabilities, but very much on the difference on what it comes out to *now* and what it used to be *before*; another way of stating this is to note that potential performance of the system depends on the conceptual and structural *distance* between what the system was before and what it amounts to now. The speed of institutional transformation takes on a particular importance in this context. The higher the speed the higher the usual hazards of mistakes resulting from the hasty changes. However, higher speeds make for higher differences in institutional machinery and thus possibly for stronger motivational impulses resulting from – perhaps not conscious and not explicit but present and active nevertheless – comparison between the previous abandoned arrangements and the ones that are available (and hopefully superior) in the current period. In any case, one might attribute unambiguously importance to the fact that the institutional distance between dynamically shifting regulative constructions depends not only on where one gets transforming this complicated architecture but, quite obviously, on the point from which one was in the position to (have to) set off.

It seems proper to add that an analogous sequence of interdependencies could be expected in cases of institutional deterioration and regress as opposed to – what is widely expected and generally taken for granted – progress and improvements in the architecture of the regulative structures. In cases of *dismantling* the inherited institutions which have successfully passed the test of time and been proven as highly functional in coordinating economic activities and steering their development – one should expect the above described phenomena but reversed in the direction of acting and the nature of consequences. Thus the change (for the worse) is bound to produce additional and separate influences largely independent of the working efficiency of the inferior arrangements resulting from such institutional

moves and the speed of change would appear do be an additional adverse factor in reducing the overall efficiency of the system. It may look bizarre even to touch on such a scenario of systemic regress, but one should not forget that history is strewn with instances of such reversals and sinkings to the states of society far behind the achieved level of civilization. The relevant instances encompass numerous revolutions having taken place in the course of long centuries, including socialist revolutions which are now overwhelmingly considered to have been major setbacks in the history of civilization.

### Growth potential of institutional change: The case of China

China is far from being a completely transformed, fully adjusted capitalist country. As forcefully underlined by *Huang* [11, pp. 10-24], quite likely the most authoritative source on Chinese performance and policy, a textbook kind of testing of the features of the Chinese systemic set-up would demonstrate that many typical and even necessary capitalist traits are conspicuously lacking and many policies are directly opposed to what is generally perceived to be the spirit of capitalism. A single policy alone, the one of tenaciously preserving and recklessly subsidizing the clumsy and grossly inefficient state-owned companies, the so-called *socially owned enterprises (SOE)*, would be sufficient to conclude that the remnants of the old socialist structures are so marked as to make any talk of Chinese full-fledged capitalism plainly groundless [11, pp. 11-14]. *SOE* still account for a large part of the Chinese economy and serve the same purpose which was typical for them in the past, namely to represent comfortable and reliable base for accommodating the experienced and deserving party cadres. *SOE* are a mighty instrument of unrestrained state dirigisme and a cruel and unscrupulous means of exploitation of the market-based segment of the economy by relying on coercion and unbridled use of the state power. Yet, despite the vestiges of the socialist economy and the heavy hangovers of the collectivist consciousness, China has managed to achieve spectacular development performance which seems to have impressed the entire world. This is exactly why Chinese case is almost ideal for

illustrating the *mighty effects of institutional change*. The system is not capitalistic, but the change is undoubtedly directed to capitalism and it is the change that gives the deepest imprint to the Chinese society.

China is thus a rare and exceedingly interesting combination of the two contradictory features of social realities. One is the *economic system* which is still dominated, but certainly not exclusively occupied, by the vestiges of the socialist past and the *conspicuous systemic change* which is entirely in the sign of the capitalist systemic transformation and evidently the herald of the capitalist future of the country. One encounters here, as it were, a conflict between the *state* and the *tendency*, with the state belonging to the old socialist world and the tendency representing the announcer of a future, completely different world. This change has clearly produced far-reaching changes in the structure of the Chinese economy, but the mighty growth impulses and the unheard of development potential come principally from the change itself, from the widely undertaken adjustments throughout the economy and from positive expectations generated within the society as a whole.

All of this is firmly connected with the unprecedented liberation of the society. Again, analyzing civil and other freedoms relying on the standard criteria of developed democratic countries and finding out that (1) China is not a democratic state, and (2) that many freedoms are simply absent and quite a few of those granted leave so much to be desired, i.e. using the conventional criteria for measuring and evaluating freedom(s) would be an entirely mistaken approach. The existing level of freedom(s) and the form in which they happen to be institutionalized is *not* what should be looked at what would be representative for actual Chinese realities. It is the affected change which critically colors that reality, as well as living and still vivid memories of a depressing past which is in stark contrast with newly emerging irresistible tendencies.

Just a cursory look in the past readily confirms the huge jump that has been made with respect to such abysmal past. *Babić* [3, pp. 358-71] systematically and to a significant detail reports on the unheard-of turbulences imposed on the Chinese society by so-called Great March Forward (1959-1961) and the ill-famed Cultural Revolution (1966-1977).

The system of notorious people's communes was just about the most totalitarian form of social organization applied to such a large number of people. In short, the initial state from which the emancipatory movement of 1978 started and the unbearable turbulences to which hundreds of millions were exposed could easily be recognized as devastating and inhuman; the initial, starting condition was evidently such that noticeable normalization of life initiated with the reform of 1978 and constitutionally formalized and guaranteed appeared to the vast majority as obtaining foothold on a different, vastly superior planet. Again, the change was the key element of this spectacular turnaround. It is not the profoundly different system as such which was unexpectedly launched and continued to develop more or less uninterruptedly that accounts for the epochal awakening of the society and for impressive growth. Rather, the decisive driving force was the spectacular *change* that was performed in a short span of time and produced positive expectations, while unleashing rarely seen entrepreneurial initiatives and stimulated all kinds of efforts leading to rapid development. In other words, it is not the system as such, whatever form and structure it might have had at any given point in time, that accounts for admirable Chinese economic takeoff, but the *same system in comparison with what it was on the eve of this magnificent liberation*.

Whatever approach is taken to the Chinese development miracle, it inevitably leads or comes back to one key word: *freedom*. In China, as elsewhere in the world and in other exciting episodes of international successful development, freedom proved to be mighty development driver and the unrivalled productive force. Allowing people to work, invest, learn and venture into entrepreneurial undertakings seems to be the right recipe for putting the economy onto the trajectory of rapid and sustainable development. Certainly, the state has its part to play: no superior agency can be found for protecting property, enforcing contracts, guaranteeing personal security, providing public goods which no one other would secure... All of these pertain to the province of government, but not stepping into the shoes of producer, merchant, entrepreneur... Governments indulging into the counterproductive and inadvisable dirigisme have, most regrettably, little capacity to carry

out their proper functions, the ones of the highest priority for market economies and the ones in whose execution governments are simply irreplaceable.

### Concluding remarks

One of the most frequently asked and in the most variegated ways answered questions is what determinants of economic progress are, what are the ways of securing stable and sustainable growth and what place in this grand venture should be reserved for public policies and government acting behind and through them. It took some time to ascertain that the secret of successful growth cannot be sought in resource availabilities as these are the result rather than preconditions of development. The next unavoidable step was the recognition that the truly important matter is not what means economic agents have at their disposal but what they do with them and how they put them to economically efficient uses. Thus institutions came to the top of research and deliberative agenda and, immediately following, political interrelationships and broader social conditionings determining the choice and development of institutions.

Recent experiences revealed another important determinant of the growth performance of individual countries, their variously defined groups and eventually of the world as a whole. It turned out that not only the institutions as they are, with their involved structure and not easily predictable functional characteristics, could fully account for empirically ascertained growth performance. The *change* of institutions proved to be highly relevant explanatory factor and a powerful contributor to the rate of growth and other development indicators. The institutional change makes economic agents to adjust thoroughly and thus introduces a precious element of dynamism into economic system. It also significantly affects the agents' expectations, revives their "animal spirits", introduces into the system the valuable elements of optimism and credibility and thus steps in as a powerful driver of economic development. The change encompasses several components which separately and in differentiated ways contribute to the development of the economy. For one,

the speed with which the change unfolds affects growth potential in several important ways. It foreshadows the future improvements of the system, encouraging the agents to venture into the new entrepreneurial actions. It also contributes to the cleaning of sorts of the institutional scene by eliminating the vestiges of the old arrangements and the legacies of the past behavioral patterns. It also contributes to expanding the volume of transactions by pointing to changes in the broadest social environment which are likely to facilitate various business operations.

The theory of institutional change as a distinct driving force of economic development is illustrated and substantiated by the contemporary development experience of China. Among the countries having produced conspicuous institutional shifts China is evidently the most representative. Without democratizing the political system, China has produced another epochal change, certainly more beneficial regarding economic development and possibly more valuable from the broadest social point of view. She has scrapped the old totalitarian system of people's communes and opened up wide spaces for free entrepreneurship and offered expansive vistas of economic freedom. China reintroduced the market as the basic mechanism of coordination of economic decisions. A complete market system, with the plethora of accompanying institutions, cannot be reconstructed overnight. It will take years and decades before China rounds off the diversified machinery of markets and their supporting regulative arrangements. However, despite the fact that this collection of arrangements is far from finished, the economy makes gigantic steps in her spectacular development. The key explanatory factor for such amazing success is the *change* itself. Quite independently of the level at which it is affected, the change acts as an independent, and powerful at that, growth encouraging factor. The same set of institutions may produce vastly differing growth performance depending on the speed with which it unfolds in time and on the initial systemic configuration from which institutional development started and with which economic agents consciously or unwittingly compare the given regulative set-up.



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# FOOD CHAIN, AGRICULTURAL COMPETITIVENESS AND INDUSTRIAL POLICY: A CASE STUDY OF THE SERBIAN RASPBERRY PRODUCTION AND EXPORT<sup>1</sup>

Lanac snabdevanja hranom, konkurentnost  
poljoprivrede i industrijska politika:  
studija slučaja proizvodnje i izvoza maline iz Srbije

## Abstract

The analysis addresses the chosen sector particularities (the raspberry food chain in Serbia) in achieving the agribusiness development in terms of export orientation and competitiveness. Both public policies, including industrial one and business marketing strategies, can contribute overall goal – the sector development from local to globally recognized competitive system. Although Serbia is one of the leaders in raspberry production on global level, measured in terms of quantities, the food chain suffers from low quality of marketing channels. Substantial quantities of raspberries produced in Serbia are exported in frozen form. The projected sector development dynamics is also burdened by the fact that the plants in the country that are intended for processing raspberries are obsolete in terms of technology and faced with a lack of good quality human resources and loans. This especially applies to the accepted standards of production that have become an obstacle for further placement of Serbian raspberries in the European and world markets.

**Key words:** *food chain, local, global, market, raspberries, production, export, policy*

## Sažetak

Analiza prezentovana u ovom radu odnosi se na specifičnosti uticaja izabranog sektora (kanal snabdevanja malinom u Srbiji) na razvoj agropriivrede u smislu povećanja eksportne orijentacije i konkurentnosti. Javne politike, uključujući i ekonomsku politiku, kao i poslovne marketing strategije mogu da doprinesu postizanju ukupnog cilja – razvoja ovog sektora od lokalnog do globalno prepoznatog konkurentskog sistema. Iako je Srbija jedan od lidera u proizvodnji maline na globalnom nivou,

mereno u proizvedenim količinama, ovaj deo prehrambenog sistema još uvek je pod snažnim uticajem niskog kvaliteta organizacije kanala prodaje. Značajne količine maline izvoze se u zamrznutom obliku. Dinamika razvoja ovog sektora dodatno je opterećena činjenicom da je tehnologija proizvodnje u fabrikama koje se bave preradom ove sirovine na izuzetno niskom nivou i da je svaka proizvodna jedinica dodatno opterećena problemom kvaliteta radne snage i dodatnih izvora finansiranja. Ovo se posebno odnosi i na primenu standarda u proizvodnji koji postaju značajan problem za dalje pozicioniranje srpske maline na evropskom i svetskom tržištu.

**Cljučne reči:** *lanac snabdevanja hranom, lokalno, globalno, tržište, maline, proizvodnja, izvoz, politika*

## Introduction

Based on the physical (geographical) distance, food chains can be distinguish as local and global [5]. However, food chains can differ based on other attributes, such as governance and organization issues [8], [11], resources, knowledge and technologies [18], as well as the role of the territory in defining of the identity of the product [7], [2]. The key issue regarding governance and organization is related to control that different actors exert over the supply chain. Furthermore, performance of a food chain heavily relies on distribution of added value within a supply chain. The level of incorporation of local into global food chain depends on standardization of the processes (production

1 This paper forms part of the results of research in the project "Strategic and Tactic Measures for Resolving Competitiveness Crisis of the Real Sector in Serbia" financed by Ministry of Education, Science and Technological Development of the Republic of Serbia.

& quality control mechanisms). Product identity is linked not only to the territory of production, but also to legally protected geographical indications (such as PGO and PGI). All the above-mentioned factors can help identify local food chains that could meet the global demand. In other words, the food chain that can be observed as the export-oriented should be as much as efficiently organized based on different internal and external criteria.

If we observe the export potentials in the practice, the analysis often refers to specific sectors that create a comparative advantage over other countries. In this paper, the analysis is based on an example of the production and export potential of raspberry. Serbia plays an important role in the world raspberry production, giving a fifth of the yearly production of this soft fruit. The main purpose of this paper is to give an overview of the current state of the Serbian raspberry food chain, as well as to point out the main obstacles to further development of the sector competitiveness. Although the raspberry food chain is often nominated as a national market with most significant influence on agricultural export potential, the research results address policy issues and recommendations equally, based on the analyzed data on production, producers and export prices, as well as structure and governance of the raspberry food chain in our country.

### Food chains and agricultural competitiveness

Dynamic conditions of market economy, with extremely fast, frequent, irregular and hard to predict changes require from businesses a high level of flexibility in their business operations. At the same time, intense competition, which is becoming fiercer from day to day, along with technological progress, complicates their market positioning even further. Faced with such an environment and forced to change their business strategies and behavioral patterns in the market, the companies' managements are more and more often looking for the source of their competitiveness outside the traditionally used marketing tools. Namely, it has been found that in order to achieve long-term competitive advantage (i.e. that which cannot be quickly, easily and simply copied by the competitors) previously used strategies of product, price and promotion are

no longer sufficient. Significant changes are, therefore, expected in the development of competitive advantage through integrated marketing and food trade channels, or specific agricultural products.

Nowadays, the primary responsibility of the management of agricultural enterprises is usually perceived to be the development of marketing strategy. The food supply chain includes all the participants in the system from primary agricultural producers (who produce raw materials), the food industry (whose role is to finalize the products to the form in which they are the most suitable for household consumption), to retailers that can be organized as wholesalers (who resell these products in an unmodified or slightly modified form) or retailers (who sell these products to final customers). The most important task at this stage of increasing the competitiveness of agricultural production is to design an appropriate structure of marketing channels in the domestic and international markets.

Characteristics of fresh agricultural products affect the process of designing marketing channels in different ways. The products whose quality and freshness meet the needs of the final customers are better placed on the market, which is a good enough reason to design direct marketing channels for a number of such products. Product policy should seek to develop finished products for domestic and foreign consumption. Due to the very characteristics of the product, and seasonal production, it is necessary to engage both wholesale and retail traders to store these products in specialized centers, until the time is suitable to market them. Wholesale has solidified its position in wholesale trade due to consolidation of the needs of the retailers, large consumers and processors. Therefore, wholesale trade acts as a rationalization factor in commodity circulation, as well as a stabilizing factor for the trade or production. In order for wholesale trade to fulfill its role of a wholesale dealer successfully, it should have large and technically well-equipped warehouses at its disposal. With this respects, it is necessary to bear in mind the fact that, in recent years, in addition to wholesale traders, there have been other business entities engaged in wholesale circulation of agricultural products, such as various intermediaries – commission agents, agents, brokers

and other participants. Lately, the trade label method of sale has become more and more prominent. With the development and emergence of market economies in the developed countries, the retail sale of food has taken the key role in the implementation of marketing function, by bearing the risk, organizing and financing the production.

### Specifics of the raspberry chain and export potential of the Serbian agribusiness

If we observe the export potential and competitiveness of the agribusiness in Serbia, a specific analysis is often reduced to a simple choice of products in whose production we can achieve a comparative advantage over other countries. This paper analyses an example of the production and export potential of raspberry – a traditional product accounting for half of the total export value of fruits from Serbia. Moreover, measured by the total quantity of exported raspberries, Serbia is the world leader. In the last five years, Serbia's share in world exports of raspberries ranged from 21% to 23.4%; it was followed by Poland whose share ranged from 11% to 22.6%, and Chile with a share ranging from 16% to 18.9% [17]. However, with regards to the realized value of exports of this product worldwide, Belgium, which occupied the fourth place in 2009, with the share in world exports of 7.8%, is better positioned than Serbia with the export price for raspberries of 2.27 euros per kilo, whereas the exporters of raspberries from Serbia, for example, realized average export price lower by as much as 1 euro/kg in 2010<sup>2</sup>. Large differences in the quantity and value expressed by raspberry export distinctly indicate untapped comparative advantage and

unsatisfactory profitability in the production and trade of raspberries, measured in opportunity costs.

The analysis also shows that this is clearly not a well-organized marketing channel, either when it comes to the form of this product which is further processed in the domestic market or to the raw product offered in the global market of agricultural products. It should be noted that the biggest competitors on the global market (Chile and Poland) are working hard to improve the standards in raspberry production in order to fully develop their competitive position in the European and world markets. Therefore, in the context of the topic of this paper, the analysis starts with observation of the possibilities of raspberry production in the three countries, the largest exporters of raspberries – Serbia, Chile and Poland (see Table 1).

Major producers of raspberries in the world are faced with significant problems today. Serbia has registered multi-year decline in yields and a lack of new vines of *Willamette* and other varieties of raspberries, as well as a lack of labor during the harvest period. New vines were planted in 2008, successively, which explains the yield of the 90,000 t in 2011. However, the harvest in 2012 was halved and was only 45,000 t. That year, the plantations were damaged by drought. The reason for this situation may be sought in the fact that, for decades, only 1% of raspberries have been irrigated [14, p. 10]. On the other hand, due to demotivation of the producers and extreme aging of the rural population, Chile has been reducing the area under the plantations of raspberries. Due to the lack of labor force, Poland has had more and more problems during harvest (import of the Ukrainian labor force is impossible because of visa regime, and the Polish labor force is migrating towards Western Europe).

<sup>2</sup> available at <http://www.ekonomija.org/>

**Table 1: Comparative analysis of the largest producers of raspberries in the world**

DESCRIPTION	CHILE	SERBIA	POLAND
Variety of raspberry	<i>Meeker</i>	<i>Willamette, Meeker</i>	<i>Polana</i>
Possible annual production of raspberry (t)	45,000-55,000	55,000-90,000	45,000
Form of agricultural land organization	Large fields	Small fields	Grouped into larger plantations
Variety of seedlings	Old and new plantations	Old plantations and some new plantations	New plantations
Standards applied on the land	EU, USA, Japanese	YUS, GLOBALGAP	EU, the beginning of implementing USA and Japanese
Use of machinery	High	Low level	New

Source: [14]



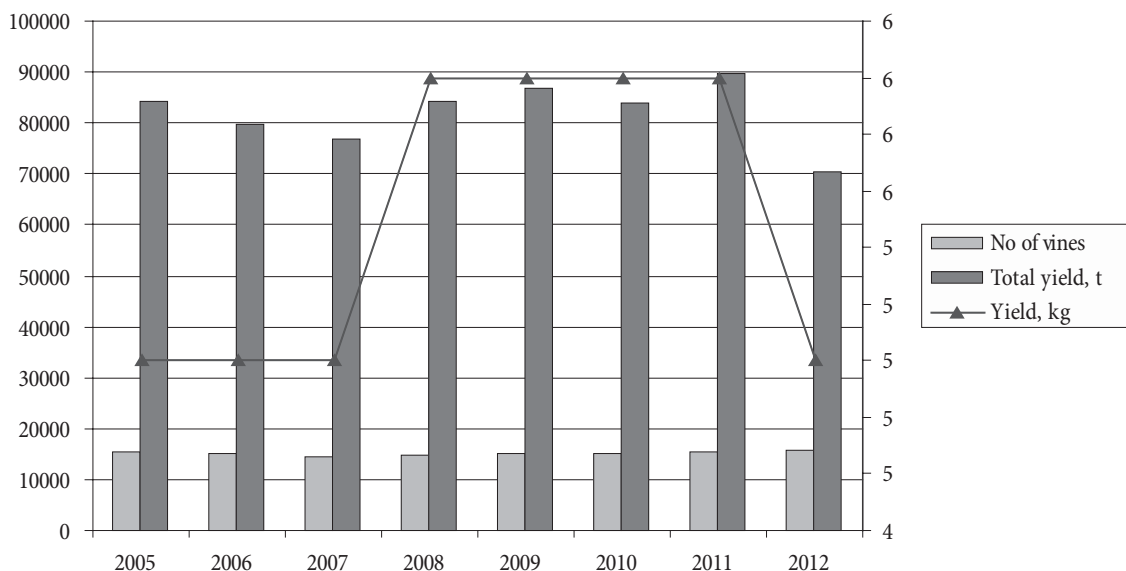
With the decline in production, the prices of raspberries in the world market will grow. Increased prices of raspberries will create a momentum for the re-growth of the sector. Serbia needs to use its predisposition to re-qualify as the most important player in the world market, and give raspberries back the title of “the Serbian red gold”. However, in order to make this possible, all the participants in the supply chain of this product should improve their work efficiency and coordinate their joint efforts within the system for the sake of achieving the desired results. This also includes, without doubt, creation of a suitable environment for the development of market competition.

Total production of raspberries in Serbia in the period 2005-2012 ranged from 70,320 t to 89,602 t (see Figure 1). At the same time, it can be observed that during this period, the number of fruit-bearing vines does not change significantly. The average number of fruit-bearing raspberries in that period was 15,105 million, while the yields per fruit-bearing tree were in the standard range of 5-6 kg. Since 2008, the area of land planted with raspberries has recorded a slight upward trend, but the yield of raspberries is largely dependent on the weather. For example, in 2008, due to drought, the yield was significantly lower, as it was last year as well, which explains the increase in the producer prices (see Figure 2).

In order to increase the production of raspberries, the Ministry of Agriculture uses a range of incentives in

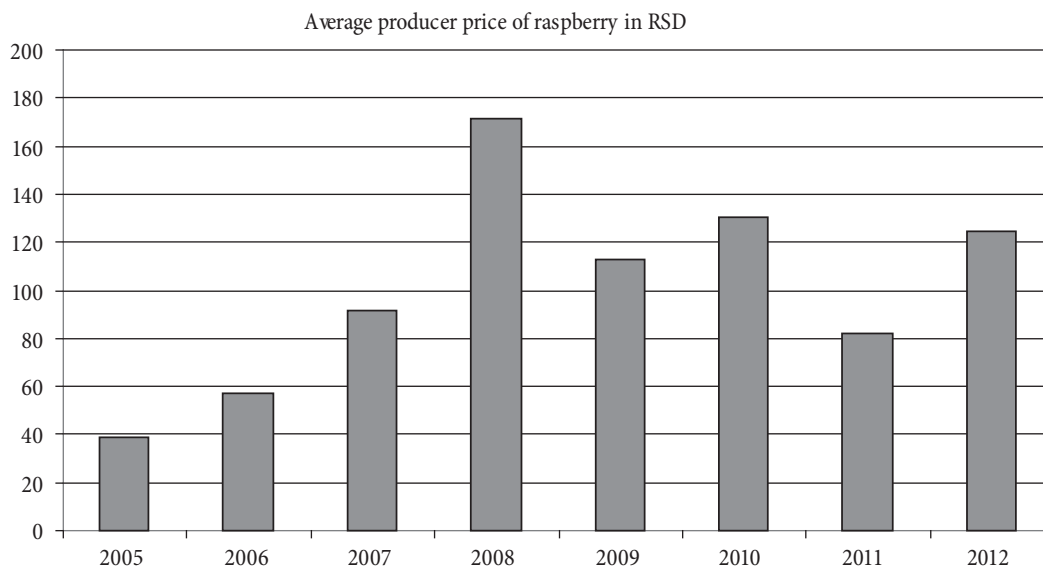
terms of subsidy funds for mother plantations and production plantations of raspberry. This policy has been particularly significant since 2008. In addition to the systemic measures, due to the protests of producers in the harvest period, the Ministry has also often arbitrarily included in the producer price regulation, in a way that is not beneficial for market mechanisms. Thus, for example, as a result of inconsistent policy, the quantities of stocks of raspberries that were formed during 2010 (at the end of the year up to 10,000 t were left in cold storage) resulted in lower producer price of raspberries in 2011. The decline in producer prices indicates a lack of organized trade that should provide a supply of goods in the quantity and range that the market demands, at a time when it is demanded and at the prices and other terms and conditions which the consumers are willing to accept. Already in 2011, which in terms of production and technology was the third fruit-bearing year from the new vines (in the first fruit-bearing year, the yield is 30% of fruits, 60% in the second, and 100% in the third), there was an increase in the quantity of raspberries offered in Serbia. This demonstrates once again that the agricultural sector, due to its specifics, must always count on long-term sector development strategy and that all *ad hoc* measures are highly unlikely to contribute to the sustainable development of the sector. Unlike previous years, in 2011, special attention was paid to verifying the safety and health safety

Figure 1: Production of raspberries in Serbia in the period 2005-2012



Source: [15]

Figure 2: Average producer price of raspberries in Serbia in the period 2005-2012

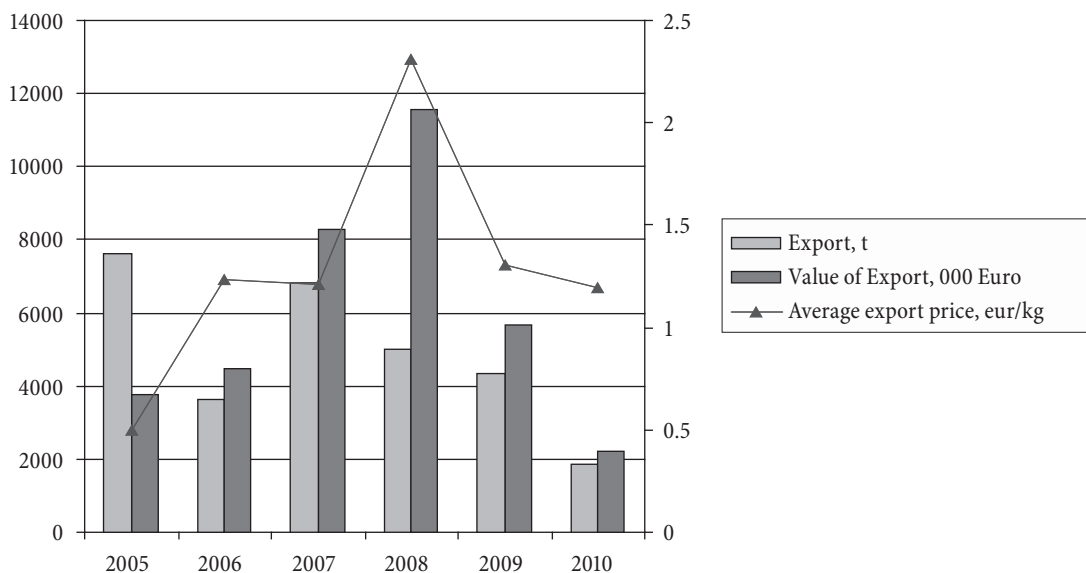


Source: [15]

of the fruits (the Norovirus detection assays). Among other things, these conditions contributed to the fall of the producer price, because Serbia has not fully implemented the standards required in the targeted export markets. Also, since 2011, the market, phytosanitary and agricultural inspections have intensified their activities related to the preparation of purchase points for raspberries and, in terms of preventive control, education of both producers and cold storage operators, as well as spot checks in accordance with the Regulations on minimum technical requirements for retail purchase points.

Although Serbia is the leader in raspberry production, measured in terms of quantities, this does not mean it can dictate the export price, because it does not have properly organized marketing channels. The prices of raspberries, which are realized in the foreign and domestic markets, are also affected by the supply of the producers from other countries. In 2011, Poland had a record harvest of 110,000 t, which resulted in a huge supply of raspberries in the market. On the other hand, our country is facing the consequences of the last year's drought and is currently applying the necessary agro-technical measures to save the

Figure 3: Export of raspberries from Serbia (quantities and value) and average export price in the period 2005-2012



Source: [6]

plantations. However, although there was a drastic fall in production in 2012 due to drought, domestic prices did not drastically change, in part because there were transition supplies of raspberries from 2011, partly due to specific market structure of the sector. On the other hand, the result of undeveloped product quality assurance policy, the sector suffers significant consequences in terms of reduced export opportunities, particularly in the European market.

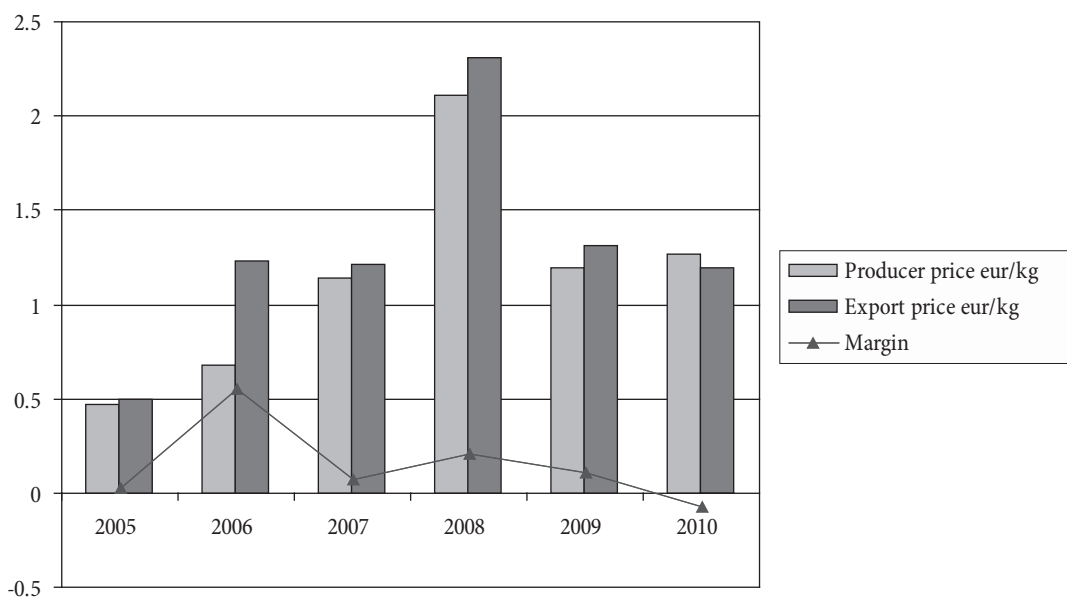
If we observe realized export prices, there is a marked year-on-year variability, resulting from the situation in the domestic, as well as in international markets for this product (see Figure 4). On the other hand, we conclude that the trends in purchase and export prices are not proportional. Insufficient awareness of the market conditions has resulted in a disproportionate increase in the producer prices as compared to the export prices. An additional contributor to the stated price imbalance is the government, which stimulates exports by subsidizing the processors, while primary agricultural producers remain deprived of such support. The above discrepancy in prices results in a decrease in the production of fresh raspberries, because the producers are not stimulated to further develop their activities. The solution might lie in a better organization of the fruit marketing channels in Serbia.

In terms of the producer price in the domestic market, there are two methods of price formation. The daily price

includes payment of the purchased goods on the same day, while the final price policy implies that the price is to be paid at the end of the harvest. Some producers choose to be paid daily prices, while others wait for the final price, which is always more favorable than the daily price. For example, on the first days of the harvest of cherries, the price is usually 18 RSD/kg, and on the last days, it is 30 RSD/kg. For many years, the producers have been deceived and cheated by a variety of dealers who have never or have only partially paid the producers. Well-functioning market relations that encourage the producers to higher production of goods are the basis for economic development policy in terms of prices of fruits and fruit products. To ensure the security of payments to the producers and to control tax collection from fruit purchases, it is necessary to change the payment method, while the purchase price should follow the trends of export prices.

Substantial quantities of raspberries produced in Serbia are exported in frozen raw form. A smaller share is processed in local factories and offered to the consumers in the domestic and international markets. The projected sector development dynamics is also burdened by the fact that the plants in the country intended for processing raspberries are obsolete in terms of technology and faced with a lack of good quality human resources and loans. This especially applies to the accepted standards

**Figure 4: Realized average producer and export prices for raspberries in Serbia in EUR/kg in the period 2005-2012**



Source: Own calculation based on [6] and [15]

of production that have become an obstacle to further placement of Serbian raspberries on the European and world markets. The sector is also suffering because there is no cluster that would enable the processing plants to concentrate their purchases of raw and processed materials, technology, and human resources and thereby to accelerate the improvement of standards, as well as to influence the development of this sector through common policies. An evidence that there is no common export policy for raspberries can be found in the fact that there is no serious grouping of cold storages, and therefore no common policy of sales, purchases and development, since each cold storage works independently. It is obvious that the complexity of the business environment and competitive pressures will lead to horizontal and vertical integration within the sector.

Retail is the last link in the movement of agricultural products from the producers to the consumers. As a sales channel, retail should be an active agent who is directly engaged in the reproduction process, affecting both the producers and the final consumers of raspberries. It should also be added that about 15% of the trade in raspberries in their raw form or in the form of craft products is realized in the green market. Unlike the situation in the developed countries, the retail trade in our country has modest capacities in which it is impossible to organize sales on modern principles. Small areas of stores designated for the sale of fruits indicate that most of the trade of these products is executed in green markets. We should expect the development of strategies still to be based on price-competition, but also on the range of products. Market globalization is well underway, so that market saturation in national markets will encourage further internationalization of trade. The development of the sector may be affected by the development strategy of trade mark for agricultural products. The consumer demands and the consumption structure will influence the formation of the production structure and the various institutional forms of marketing channels. The advantage of such form of marketing enables higher exports of raspberries, because foreign wholesale trades promote their brand in all of their shopping centers, where they are located. This method of sale of fruit is an opportunity to promote Serbian brand of raspberries in

the world market. In the French wholesale trader called "Legave" there is the name "Raspberry from the Drina Valley" (*Framboises de la Vallée de la Drina*) on the package of rollend raspberries.

### **The role of the state in promoting the development of agricultural competitiveness**

The agricultural sector requires government intervention, and the main reasons for this are the following: food security, income protection for agricultural producers, increasing the efficiency of agricultural production, food safety, and environmental problems. The objectives of our agricultural policy are not in line with the above concepts, which are the backbone of the activities of the government in the food sector. An ideal agri-food system should provide: adequate food for all, cheap food, food availability throughout the year, safe food and appropriate way of life for the farmers [19, p. 10]. However, agribusiness development policy practiced in our country has not allowed the free operation of market principles, which has led to the low competitiveness of domestic agricultural products both in the domestic and foreign markets. Increasing incentives for agriculture without proper distribution of these funds will not lead to increased competitiveness. The effects are just the opposite – it increases the budget burden and places the burden on the consumers through already high food prices. Namely, it is common and widespread belief that local farmers cannot compete with their products in the world market because foreign producers enjoy much greater support from their governments. However, a counter-argument may be the fact that the sectors that have the least support are far more competitive because they are forced to adapt to market demands. This is the first sign of politically induced problems. A mistaken belief regarding proportional relationship of support and efficiency has created an equally mistaken agricultural management policy. Therefore, the production is still far below its potential. The efficiency of utilization of domestic resources depends significantly on social welfare. Low efficiency of the domestic resources utilization leads to increased costs and low productivity factor, which results in the loss of price competitiveness. The non-price



competition factors such as product quality, international quality seals, certificates, design, services related to the product, warranty periods, can hardly make up for the relatively high costs. In addition, the efficiency of resource utilization is promoted through specialization and division of labor. The bases for the specialization are corresponding agreements on production and marketing, which have not yet been developed to a sufficient degree in our conditions. Therefore, the role of the state in the further development of agriculture and increase of agricultural competition is directly related to the general economic development policy.

The best long-term strategy is not to develop comparative, but competitive advantage. A strategy, which would create a competitive position for Serbia, should include changes in the field of production and technological innovation, branding promotion policies that would facilitate the performance in both domestic and foreign markets, improving the quality of business operations, and business and market orientation of all the stakeholders in the food supply chain. In the area of building marketing strategies, it is necessary to have stronger support for marketing orientation and strategy [10], [5, p. 10]. Changes in the producers' market orientation (targeted segmentation, branding, etc.) must necessarily be accompanied by further changes in the ownership structure (consolidation of land, market orientation of farms, etc.) and the production structure that should adopt high environmental standards. In fact, given the size of the domestic market, it would be an illusion to create national rules, which are not in accordance with international regulations. The state should, therefore, encourage the adoption of international standards. In this context, the agreements with the WTO are important, particularly the agreement on the control of goods before shipment and the agreement on technical barriers to trade, as well as the EU regulations. In order for agricultural and food products from Serbia to meet all the terms and conditions that are required in the EU market, it is necessary to harmonize our legislation with the European legislation. A stronger presence in these markets involves the strategic development concept of agriculture oriented towards development and export, higher competitiveness of the goods of agricultural origin, improved quality and

commitment to further liberalization of international trade, as well as providing the necessary concessions in the WTO accession process. In addition to a stable and sustainable growth of production, the concept of increasing exports of agricultural and food industries also requires an adjustment of the export structure to the import demand requirements, and higher competitiveness of exports, through the use of comparative advantages in exports, which are, apart from agro-ecological potential, based on technological modernization, improved concept of education, management and organizational skills and experience.

Strengthening the competitive position not only in the international, but also in the domestic market, means encouraging the development of related industries towards the production of goods, which, in their structure and quality, meet the consumer needs. It is necessary to constantly develop the image as a common marketing tool because this trend is imposed by the development of the international fruit market. The current situation in the markets of the developed countries shows that food has become a commodity of trust (among other things, it is paid by the consumer when the desired item is selected), and trust in the country of origin of a product. This means that when a customer chooses an item, from a very wide range of products, he/she does not take into account only the specific physical characteristics of the product, but subjective factors such as his/her impressions of the country – the origin of the manufacturer. This is particularly important in the case of highly processed and high value added products. Food chains thus can have an impact not only on the economically measured costs and benefits, but also on the societal, environmental, human and ethical dimensions. Both public policies and business marketing strategies can contribute to the further agricultural sector development toward sustainable food systems.

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## IMPROVEMENTS OF THE COMPETITION PROTECTION POLICY IN SERBIA: SET OF RECOMMENDATIONS BASED ON EXPERIENCE OF SELECTED COUNTRIES

Unapređenje politike zaštite konkurencije u Srbiji:  
set preporuka na bazi iskustva odabranih zemalja

### Abstract

The aim of this paper is to offer recommendations for improving the system of competition protection in the Republic of Serbia, which are possible to implement in a relatively short time period. The implementation basis for these recommendations already exists, so they are to be considered as the means to "subtly" adjust the competition policy already present in Serbia for six years. The recommendations are given based on the comparative analysis of the competition protection systems of the EU, USA, as well as some EU member countries which have a longer tradition in dealing with competition protection policy compared to Serbia. The institutional core of the competition protection system is the Commission for competition protection, authorized to carry out the Law on competition protection and the Administrative court which carries out judicial control of the Commission's decisions. The paper primarily deals with the questions of better efficiency and effectiveness in the functioning of the mentioned core, but also with the core connection with other system elements. Seven recommendations given in the paper include the issues of Commission independence empowerment, strengthening the professional Commission structure by increasing human resources and reducing the number of processed subjects during the year. Besides these recommendations, there are those indicating the need to strengthen the professional capacities of the Administrative court, since it turns out that the judicial lack of understanding of the economic essence of the Competition law can become a problem point in implementing the right decisions of the Commission. The recommendations also indicate the necessity of the Commission to communicate and cooperate more intensively with other governmental and non-governmental bodies with significant influence on the competition conditions of the domestic market. Finally, the last recommendation concerns the importance of information and education of wider audience about the importance of competition protection.

**Key words:** *competition protection policy in Serbia, competition protection commission, administrative court, comparative multiple-country analysis, improvement recommendations*

### Sažetak

Cilj ovog rada je da pruži preporuke za unapređenje sistema zaštite konkurencije Republike Srbije koje je moguće implementirati u relativno kratkom vremenskom periodu. Osnova za implementaciju ovih preporuka već postoji, tako da ih treba shvatiti kao način da se izvrši „fino“ podešavanje politike konkurencije koja je već šest godina prisutna u Srbiji. Preporuke su date na osnovu uporedne analize sistema zaštite konkurencije Evropske unije (EU), Sjedinjenih Američkih Država (SAD), ali i sistema zaštite konkurencije pojedinačnih zemalja članica EU sa dužom tradicijom u bavljenju politikom konkurencije u odnosu na Srbiju. Jezgro sistema zaštite konkurencije u institucionalnom smislu čine Komisija za zaštitu konkurencije, nadležna da sprovodi Zakon o zaštiti konkurencije i Upravni sud koji vrši sudsku kontrolu rešenja Komisije. U radu se primarno bavimo pitanjima bolje efikasnosti i efektivnosti u funkcionisanju pomenutog jezgra, ali i veze jezgra sa ostalim elementima sistema. Sedam preporuka u radu obuhvataju i bave se pitanjem jačanja nezavisnosti Komisije, te jačanjem stručne i kadrovske strukture Komisije povećanjem ljudskih resursa i redukovanjem broja predmeta koje Komisija procesira tokom godine. Pored ojačavanja stručnih kapaciteta i nezavisnosti Komisije, preporukama će biti obuhvaćeno i jačanje stručnih kapaciteta Upravnog suda, jer se ispostavlja da sudijsko nerazumevanje ekonomske sadržine prava konkurencije može postati kamen spoticanja ispravnih rešenja Komisije. Preporukama će se ukazati i na potrebu za intenzivnijom komunikacijom i saradnjom Komisije sa drugim državnim i nedržavnim telima čije delovanje ima značajan uticaj na uslove konkurencije na domaćim tržištima. Konačno, u poslednjoj preporuci ukazaćemo na važnost informisanja i edukacije široke javnosti o značaju zaštite konkurencije.

**Cljučne reči:** *politika zaštite konkurencije u Srbiji, komisija za zaštitu konkurencije, upravni sud, uporedna analiza više zemalja, preporuke za unapređenje*

## Introduction

Competition is not a goal in itself, but it is more an irreplaceable element of the partial markets functioning. It enables efficient usage of limited social resources, technological development and innovation, lower prices, better quality, product variety and generally larger productivity of an economy as a whole [5, p. 2]. The result of competition is the improvement of consumer surplus on different markets, enabling them a higher life standard. Seen from a broader perspective, stimulation and protection of competitive pressure on the markets enable strong and sustainable economic growth, thus improving the national competitiveness and creation of new work places. In the context of EU integration, in April 2008 Serbia signed the Stabilisation and Association Agreement (SAA) with the EU, which is currently in the ratification phase. When this Agreement comes to power, Serbia becomes obliged to effectuate obligations imposed by the Agreement. Among other obligations, the Agreement gives instructions for the development of the competition protection policy in Serbia. This firstly refers to articles 81, 82, 86 and 87 of the Constitutional agreement of the EU<sup>1</sup> and instruments of their interpretation, adopted by the EU institutions.

Generally, four areas of competition protection policy are considered basic and on a supranational EU level are coordinated by the EU commission. These areas must also be covered within the boundaries of individual country-members, relaying on the set of guidelines given by the EU commission. These four areas are: *(i)* stopping cartel behavior (restrictive agreements), *(ii)* stopping the abuse of dominant market position, *(iii)* control of mergers, acquisitions and company joint ventures, *(iv)* control of indirect and direct state aid to companies. The aim of this paper is to offer recommendations for possible improvements in the domain of competition protection policy in Serbia as well as to explain their influence, based on the analysis of present state of functioning of this policy both in our country and other selected referent countries. The paper offers a limited set of essential recommendations,

with possible effects that can be expected in a short time period (3 to 4 years). The implementation of these recommendations has been facilitated by the already established foundations, thus not demanding significant capital expenditures.

The competition policy framework is set by the laws in this area and the institutional bodies in charge of implementing these laws. The Law on competition protection has been in power in Serbia since 2009 (in further text LCP), as well as a certain number of bylaws, additionally defining certain guidelines of the Law. The Law assumes the existence of an expert commission in charge of its implementation. The Law also defines its organizational structure and its jurisdiction (in further text the Commission). Also, the Law assumes that the Administrative court solves the disputes based on company charges against the solutions introduced by the Commission. The Supreme court of cassation is in charge of the claims against the verdicts proclaimed by the Administrative court. The paper analyzes legal aspects of these issues, but also the practical ones, referring to the possibility of laws being efficiently and effectively implemented in the domestic market milieu.

Thereby, we have to bear in mind that the Commission, as an independent body for carrying out the Law, and official courts can not be considered the only responsible side when dealing with competition conditions on the domestic markets. The system of competition promotion and protection, in a broader sense, is comprised of the ministry in charge of trade, independent regulatory bodies for the control of public procurement and state aid, sector regulators but also NGOs working with the goal to protect the customer interest, and finally the broader public (microeconomic entities: companies and customers). Of course, the quality work of the independent Commission can be considered the essential link in the protection of competitive pressure on partial markets and public promotion of competition significance for the consumer welfare. In that sense, the Commission and the Administrative court are considered the system core. In other words, these two independent bodies comprise the system in a narrow sense and for that reason this analysis

<sup>1</sup> After the Lisbon contract revision, articles 81, 82, 86 and 87 have been renumbered into 101, 102, 106 and 107, respectively. Thereby, their contents did not change.



shall first focus precisely on that core, respecting the connections of the core with other elements.

By making a comparative analysis of the best global systems of competition protection (USA and EU on a supranational level), but also the systems of those countries which, as well as Serbia, have been dealing with this issue for a relatively short time, but have made more progress (Croatia, Hungary, Czech Republic, Bulgaria, Romania and Slovenia), we shall point out the main system shortcomings and give suggestions for their elimination. Table 1 gives a summary of the basic characteristics of these countries, needed to scan the conditions in which the competition protection policy is carried out. By basic characteristics we mean the time of Commission establishment, i.e. the time of regulation introduction to this area and the size of the inner market which is the subject of regulation and the country (non)participation in the EU integral market. Also, we state the value of the Anti-monopoly policy efficiency index, by which the selected countries are listed by the World Economic Forum (in further text WEF). This index is a useful indicator of the extent of development of competition protection mechanism. The number of inhabitants and GDP per capita are included as an additional illustration of the market size.

All recommendations shall be divided into two segments. Within the first segment we give recommendations for which the implementation assumes changes in legal solutions, while the other segment is devoted to solutions which do not demand the change of existing regulations and are in the exclusive jurisdiction of institutional entities: the Commission, the Administrative court and the Government.

## Recommendations which assume the change of existing legal solutions

Modern history of the competition protection policy in Serbia began in 2005 with the introduction of the Law on competition protection (LCP) [16], which for the first time introduced the formation of the competition protection Commission as an independent and competent body authorized for the Law implementation.<sup>2</sup> The Law on competition protection from 2005 has been changed by the updated version in 2009 [19]. This version of the Law made significant progress in the introduction of European standards in the field of competition protection. However, there is still room for improvements and they are needed to be realized in the time to come. Besides LCP, as the basic regulation on competition protection, there are also a few bylaws foreseen by the Law, additionally explaining particular relevant articles. We are talking about the regulations imposed by the Government.

According to the Law on competition protection, the Commission deals with three out of four key areas within the competition protection policy and they are: (i) stopping restrictive agreements, (ii) stopping the abuse of dominant market position and (iii) control of market concentration. Thereby, the control of state aid, as one of the four basic pillars of competition protection is not in the jurisdiction of the competition protection Commission, but another regulatory body, the Commission for the control of state aid.

In the first part of the paper we shall give recommendations for the improvements of the existing regulations, which should increase efficiency and effectiveness of the

<sup>2</sup> The Commission started with its activities in 2006

**Table 1: Basic country and market characteristics**

Country	Year of Commission establishment	No. of inhabitants (last census)*	GDP per capita PPP (in USD)**	Size of domestic market (index, 1-7)***	Size of domestic market (position among 144 countries)***	Effectiveness of anti-monopoly policy (index 1-7)***	Effectiveness of anti-monopoly policy (position among 144 countries)***	EU membership
Serbia	2006	7,120,666	10,528	3.5	67	2.8	142	No
Croatia	1995	4,290,612	14,457	3.4	72	3.8	90	No
Hungary	1991	9,942,000	19,591	3.9	55	3.8	83	Yes
Czech Rep.	1991	10,512,208	18,337	4.2	45	4.3	48	Yes
Bulgaria	1992	7,364,570	7,308	3.6	66	3.5	108	Yes
Romania	1997	19,043,767	12,838	4.3	44	3.4	120	Yes
Slovenia	1997	2,060,382	28,648	3.1	82	4.1	64	Yes

Source: \*data from the last official country census, \*\*IMF (<http://www.imf.org>), \*\*\*WEF (2012).

Commission in carrying out the LCP, firstly referring to the strengthening of the institutional capacities and Commission independence.

Most recommendations given in this paper are also present in the expert analysis of UNCTAD for 2011, carried out within the project *Peer Review*, with the aim to help Serbian efforts to increase efficiency and effectiveness in carrying out the competition protection policy [see 13]. The form of stating and explaining the recommendations in this paper follows the system “theory then proof”, and has been adopted from the mentioned expert analysis, since we consider it to be both effective and concise manner of formulating a document which has the goal to help understand the needed changes of one policy. The crucial difference compared to the UNCTAD study is more in the “proof” than in “theory”. This is so, since the comparative analysis of chosen countries confirms the assumed attitudes, making a basis for precise calibration during implementation. This analysis also formulates much less recommendations compared to UNCTAD paper, since we consider some recommendations not to be the relevant core of the problem solution in short or mid-term period.

#### *Recommendation 1: Commission financial independence*

Since the Commission financial independence is crucial for its functional independence in adequate carrying out of the LCP, it is necessary to enable the Commission stable, foreseeable and sufficient sources of financing. The current law determines that (article 31) the Commission financing should be mostly from own income, generated from fees paid by companies which are the subject of Commission inquiries. The fee amount is determined in the Tariff book [11], set by the Commission, with the approval of the Government. Thereby, we should state that the fees paid by the companies determined to have broken the rules set by the Commission are added to the budget of the Republic of Serbia.

In case of income surplus during the accounting year, the Commission is obliged to transfer the surplus funds onto the account of the budget, which *de facto* enables

it to form reserves [19, article 32]. On the other hand, in case of a deficit, there is a possibility to balance incomes and expenditures from the budget, if the Government approves of such a decision [19, article 32]. Although there is a possibility of covering the deficit from the state budget, this option does not oblige the Government to really do so, which puts the Commission in an unfavorable position. Income collected on the basis of fees by the Commission can not be characterized as foreseeable as the expenditures. In that manner, the Commission, whose capacities and thus income does not significantly change on an inter-annual level, can not plan with certainty the coverage of those expenses with income which is variable *per se*, since it depends on the Commission’s activities which are externally determined.

It is needed to say that fees paid by companies for the notification of mergers (concentration) are the most significant part within the entire set of fees, and thus income. The analytical procedure for concentration approval is the most demanding, and thus represents the biggest task for the Commission capacities, and therefore the biggest fees. According to the mentioned Tariff book, the concentration fees approved in a shortened procedure go up to 25 thousand Euros, while the procedures carried out in a full scale, where the capacities are significantly engaged can cost up to 50 thousand (per approved concentration). These are too high amounts and burdens for companies planning to merge. These fees are the highest compared to the focused group of countries, which without exception finance their commissions from the state budget. It is evident that with the self-financing model the Commission is stimulated to maintain a relatively high level of fees, which makes the business of the companies more expensive. On the other hand, due to the impossibility of controlling and foreseeing income, the Commission can be stimulated to reduce the level of its activities, thus also reducing its expenditures, which is a bad solution as well.

Table 2 gives a total amount of income of the selected countries’ commissions based on latest available Activity reports. Also, income shall be stated in a relative form compared to the number of employees within Commissions,

**Table 2: Commission income according to the number of employees for 2010**

Countries <sup>3</sup>	Number of employees	Income (absolute amount)	Income (per employee)	Control of state aid as a function within the Commission
Serbia	27	1,198,218	44,378	no
Croatia	45	2,265,219	50,338	yes
Hungary	125	9,300,000	74,400	yes
Czech Rep.	126	5,420,511	43,020	yes
Bulgaria	130	4,601,627	35,397	yes
Romania	295	8,551,158	28,987	yes
		<b>Average</b>	<b>46,086</b>	

Source: Official commissions' activity reports<sup>4</sup>

thus surpassing the differences between countries, in the matter of regulatory body capacities.

Based on data in Table 2, it is evident that the income of the Serbian Commission in absolute figures is significantly lower compared to other countries, which also refers to the total number of employees. We must bear in mind that in the selected list of countries only the Serbian Commission does not incorporate in its activities the control of state aid, since there is another body established with that purpose. Therefore, it is logical that partially for that reason it generates less income but also employs less people. Based on the average income per employee, we can see that Serbia is just beneath the group average. According to the activity reports from the Serbian Commission from the last two available years, it turns out that it has generated surpluses, which were transferred to the state budget. Also, increased exposure of the Commission to the risk of uninterrupted financing is influenced by the article 57 of the LCP. This article assumes that all financial fees gathered from firms to annulate competition damages, and which should be set by the Commission are paid in favor of the account of state budget. If there are additional annulations or decreases of the declared measures, funds are paid back from the state budget up to the level of nominal fee amount, while the accumulated interests and other expenses are to be paid in full by the Commission. This kind of a decision exposes the Commission to excessive financial risk. In this manner the Commission is not only unable to predict its income, but its expenditures as well. In this case, it is up to the official courts to determine whether the Commission's

decisions will be altered, increasing or annulling the stated fees, and additionally burdening the Commission with the cost of this decision alteration. Generally, there are two options as possible solutions for the implementation of this recommendation.

The first option would be to follow the example of countries stated in our analysis, but also present in numerous European countries. This means that it is needed to secure a sufficient amount of budget funds for financing the Commission. Thereby, the Commission would still be able to collect fees, but the amount of these resources would be considerably lower compared to funds obtained from the budget. This way of financing would enable the change of the present Tariff book, thus significantly lowering the fees for concentration notification. Based on [19] it is foreseen that the decrease of fees for concentration notification should be for about 50%, bringing it down to the European standards, assuming that at least 80% of income should come from the state budget. The Commission financing plan should be formulated by the Government based on a three-year activity plan of the Commission, taking into account the needed human and financial resources for full implementation of the LCP. The implementation of this measure would assume the change of existing LCP, i.e. the article referring to the Commission financing (article 31). This article in an altered version would clearly state that the amount of planned Commission expenditures is covered by the state budget. This option however should not jeopardize the Commission's independence. In other words, the Law should eliminate the possibility of the Government to influence the decision making in the Commission, and thus the specification of the costs deriving from those decisions.

The other solution refers to the possibility of enabling

<sup>3</sup> Data for Slovenia were not available at the time of paper preparation.

<sup>4</sup> available on internet pages: Serbia (<http://www.kzk.org.rs>), Croatia (<http://www.aztn.hr>), Hungary (<http://www.gvh.hu>), Czech Rep. (<http://www.compet.cz/en>), Bulgaria (<http://www.cpc.bg>), and Romania (<http://www.consiliulconcurentei.ro>).

the Commission to form reserves in case of achieved surplus, from which it could draw funds in case of support lack from the state budget during the years of deficit. The realization of this measure would assume the change of the mentioned article 32 of the LCP in the part in which it is stated that surplus funds are transferred to state budget. Compared with the possibility of financing the Commission from the state budget, this option could be considered the second best solution. Of course, the change of the problematic article 57 of the LCP, i.e. the repeal of the obligation of the Commission to compensate interests and other costs connected to annulling or diminishing stated measures of the Administrative court, should certainly be done, regardless of the chosen financing option.

### *Recommendation 2: Organizational structure and Commission capacities*

In order for the Commission to perform the inquiry activities legally put under its authority, it is necessary to optimize the Commission's organizational structure and to enlarge its human, and thus expert capacities. This would assume the opening of new workplaces for experts of legal or economic profile, specialized for the area of competition protection. Also, the Commission should employ experts for information and communication technologies.

In order to explain this recommendation, it is necessary to emphasize that the Competition law is specific, since its implementation often demands the knowledge of economic analysis, which certainly surpasses the possibilities of complete legal codification of this area. The connection of law and economics is an unavoidable link in solving issues from the domain of competition protection, which demands permanent Commission employees with these skills. The employee fluctuation within the expert Commission service should be brought down to a minimum, since continuity in work and experience is the essence of improving quality implementation of this policy. Besides the quantity of human resources, for the implementation of LCP, quality is also needed as well as a specific structure of an expert employee profile.

We shall start by analyzing the quantitative dimension of human resources available within the Serbian Commission

(see Table 3). We shall compare these data on the number of subjects analyzed by the regulator during a calendar year with the data for Croatia and Czech Republic, as the most likely countries for comparison. In order to make the comparison, we shall focus on the number of employees for the three key sectors: (1) concentration control, (2) competition damages (cartel behavior and abuse of dominant market positions), and (3) sector analysis, but on the number of subjects dealt by the Commission departments during a year.

The number of subjects per employee in the sector for concentration control is specially an illustrative dimension of overburdening the regulatory body. The adequate relation should be 1(S)/1(E), since the concentration control (mergers, acquisitions, alliances etc.) is the analytically the most complex, since it involves detailed economic analyses in order to foresee the effects of mergers onto the competition conditions, which have not yet been realized. However, the value for 2010 in Serbia for this ratio is 13.4 whereas the same ratio values in the same year for Croatia and Czech Republic are 1.88 and 1.45 respectively. Based on these values it turns out that the sector for concentration control of the domestic Commission has been seven times more overburdened by subjects compared to the Croatian commission and over nine times more than the Czech one. Comparing the results of Serbia and Croatia for 2011, this ratio is even more unfavorable for Serbia (difference of more than 16 times), mostly due to evident increase in the number of notified concentrations and minor capacity increase in the department of concentration control in Serbia. Comparing the total number of subjects from stated sectors with the total number of employees in these sectors, 1-3(S)/1-3(E), we can also note the excessive burdening of the capacities of the domestic Commission. In 2010, the burden of one employee engaged on subjects compared to Croatia was 4.5 times greater, and even 10 times more than in Czech Republic. In that sense, we would expect our experts to have a multiple higher productivity in processing subjects. Since that is not the case, we shall analyze how this problem should be solved. In order to minimize this ratio to acceptable European country standards, it is necessary to increase the number of employees in the expert service of the Commission,



Table 3: Subject and employee structure of three comparable commissions for competition protection

Country	Data	2010	2011	
Serbia	Subjects (S)	1(S) Concentration	67	106
		2(S) Competition damages	15	12
		3(S) Sector analysis	3	3
		<b>Total 1-3(S)</b>	<b>85</b>	<b>121</b>
	Employees (E)	1(E) Concentration	5	6
		2(E) Competition damages	7	7
		3(E) Economic analysis	2	3
		<b>Total 1-3(E)</b>	<b>14</b>	<b>16</b>
	Relative values	1(S)/1(E)	13,40	17,67
		1-3(S)/1-3(E)	6.07	7.56
Croatia	Subjects (S)	1(S) Concentration	15	12
		2(S) Competition damages	2	7
		3(S) Sector analysis	3	2
		<b>Total 1-3(S)</b>	<b>20</b>	<b>21</b>
	Employees (E)	1(E) Concentration	8	11
		2(E) Competition damages	4	6
		3(E) Economic analysis	3	4
		<b>Total 1-3(E)</b>	<b>15</b>	<b>21</b>
	Relative values	1(S)/1(E)	1.88	1.09
		1-3(S)/1-3(E)	1.33	1.00
Czech Republic	Subjects (S)	1(S) Concentration	45	
		2(S) Competition damages	1	
		3(S) Sector analysis	1	
		<b>Total 1-3(S)</b>	<b>47</b>	
	Employees (E)	1(E) Concentration	31	
		2(E) Competition damages	33	
		3(E) Economic analysis	16	
		<b>Total 1-3(E)</b>	<b>80</b>	
	Relative values	1(S)/1(E)	1.45	
		1-3(S)/1-3(E)	0.59	

Source: Official commissions' activity reports<sup>5</sup>

but also to downsize the number of subjects, especially concerning notified concentrations. For example, in order to level with Croatia, the Serbian Commission needs to enlarge the capacity of employees engaged on subjects for at least 30%. Besides, the Commission must pay more attention to the structure of expert profiles being employed, since there is a need to balance between the number of economic and legal profiles. However, in Serbia we have an evident domination of legal over the economic experts within the Commission.

One of the main organizational shortcomings of the Commission, when it comes to human resources, is also the lack of the position *chief economist*, which exists in, for example, Hungary and Croatia, but also on a supranational level of competition protection in the EU

within the DG COMP. The role of the chief economist is to monitor and control all economic analysis performed by the Commission, and thus to form the methodology and procedures in order for the Commission to follow during inquiry processes which demand economic analysis. The Commission Council should take into consideration the opinion of the chief economist in every case where the economic argumentation is used in the process of proving potential or actual competition damage. For example, within the General directorate for competition, the main economist has a mandate to form his/her personal team of experts in the field of economics, which are a part of the chief economist's office. We thus imply that the selection process for experts of economic profile should be under guidance of the chief economist within the Commission. While selecting the chief economist, it is suggested that he/she possesses the highest professional level in the area

<sup>5</sup> available on internet pages (see: <http://www.kzk.org.rs>, <http://www.aztn.hr>, <http://www.compet.cz/en>).

of economics, a PhD degree with focus on the field of competition protection. This expert should be specialized in the domain of game theory and industrial organization, with focus on competition protection, which would assume the person to have relevant research experience within the field or to have worked for some time, for example 10 years, in some developed foreign commission on the subjects of economic analysis. Additionally, one of the basic needed skills of the chief economist should be the proficiency in knowledge of econometric tools, as their usage is crucial within the processes of inquiry of the Commission. Certainly, the chief economist should possess the highest level of expertise compared to other economic experts within the Commission, and thus an indisputable authority in decision making on all relevant questions.

Therefore, the position of the chief economist should be defined by law, giving precise qualification needed for his/her selection. The selection should be done by a public competition, where the candidate with the best qualifications should be elected. The problem that might occur with this position refers to the (im)possibility of the domestic Commission to finance it. The stressed fluctuation on the position of the chief economist is something that needs to be avoided at all costs, which is impossible to do in the conditions of current compensation and reward system used by the Serbian Commission, similar to the rest of public administration. Redefining the system of compensation and rewards is narrowly connected with the issue of securing stable, foreseeable and sufficient financing sources of the Commission, as we have indicated in the first recommendation.

The position of the chief economist is additionally important for the domestic Commission bearing in mind the number of staff of legal profile, which, in current call, are all members of the Commission. This fact is especially troublesome knowing that the regulation area is both of legal and economic nature. Following that logic, the Commission members should be of both profiles. In order to secure continuity at work and in knowledge accumulation, thus also in efficiency and effectiveness of the Commission functioning, the Government should opt to leave the same or at least the majority of Commission members through two mandates, which is allowed by the

law. The discontinuity caused by changes on every five years is connected to losses of time needed to set up the new Commission council from scrap. This is something that a responsible State, aware of the competition influence on the welfare of all citizens should avoid. Besides, such practice is present in the majority of EU countries.

In the context of previous discussion about the Commission Council, we consider that it is needed in due time to change the article 23 of the LCP which refers to the selection of Commission organs (the Commission president and Council members). This article leaves the possibility of forming the Council only both by people of legal and education in economics, but does not limit the extreme solutions which assume only one of these educational profiles. Also, it is needed to additionally work out principles of Council member selection, in order for the selected experts to have a business career closely connected to law and economics of competition. If we are talking about economists, similar principles of selection as with the chief economist should be chosen. As for the members of legal profile, the Commission should opt for people of highest academic ranks, with professional focus on competition law. If the Commission opts to choose members outside of the academic community and without highest ranks, they can only select candidates with long-year experience (at least ten years) in some respectable foreign competition protection commission.

Finally, in the era of rapid development of information and communication technologies, the Commission must think in the direction of employing experts in this area, need foremost to carry out inquiries about cartel agreements. In order to determine the cartel agreement, every proof of its existence can help the Commission solve the case. For example, collecting evidence during the unannounced inquiry is foreseen by the article 53 of LCP and assumes collecting data from memories of electronic devices from the company premises where the inquiry is effectuated, but also from the physically remote devices connected with the company by communication networks. Taken copies of found electronic memories are the subject of further "forensics" in the Commission headquarters, with the aim of finding the correspondence with other market participants as proof of unauthorized cartel agreements.

The role of IT experts in this process is vital. According to the analysis presented in [13], the real measure for strengthening the IT capacities of Serbian companies assumes two additional experts in this domain.

*Recommendation 3: Decrease in the number of competition concentration cases*

In order to decrease the burden placed on the Commission, it should be able to focus on significant cases of competition conditions on partial markets of the Republic of Serbia. Therefore, the total number of reported concentrations should be reduced by lifting the limits for the obligation of concentration report.

The company concentration control (horizontal mergers and acquisitions) represents the most analytically complex subjects faced by the regulatory bodies in the domain of competition protection. The unnecessarily big number of concentrations (see Table 3) is the result of the fact that the limits for the obligation of concentration report (“notification thresholds”) are set too low [19, article 61]. That way a lot of concentrations of minor importance are obliged to be reported. The orientation towards low thresholds can be explained by the fact that fees on the basis of concentration represent significant income for the Commission.

We need to state that the thresholds for the obligation of concentration report represent a mix of objective and easily understandable conditions, which cumulative completion, bounds the relevant parties to report that concentration. These conditions are based on the amount of annual income of the concentration participants, which is an understandable and easily checkable data. Setting cumulative conditions has the goal to secure reports of only those concentrations with dimensions important for the market of the Republic of Serbia. Thereby, besides total concentration size, thresholds should be set in that manner in order to relieve of the obligation of concentration report for quite asymmetric participants (for example, “where a giant takes over a dwarf” [1, p. 33]), because in those cases the market situation does not change significantly.

Based on the three latest annual reports of the regulatory bodies of Serbia and countries covered by

the analysis, it turns out that Serbia has a much greater number of concentrations reported compared to the value of other countries. With an annual average of 96.33 Serbia is way ahead compared to other analyzed countries. For comparison, the average annual number of concentrations for other countries in the analysis besides Serbia is 40.67. Such overburdening of the Commission with concentrations, due to the fact of needed level of income secured in that manner, obliges that the majority of subjects be approved by a short procedure, thus without a detailed economic analysis of market structures in which the subjects of concentration operate. In such conditions, when the Commission is obliged to make approval based on the “rule of the thumb”, without the accompanying quantitative analysis, the so-called error of *false positives* dramatically rises – as a final result, the Commission may approve of a concentration which will affect negatively the market competition level. In 2011, from 100 closed subjects only two were solved in a regular inquiry procedure (2% of the total number). For example, compared to Croatia and Czech Republic, where 10% and 50% of the inquiries respectively, were solved in a regular procedure, we come to a conclusion that this percent in Serbia is too low.

The negative effect of setting low thresholds for the report of concentration, and thus a too great number of concentrations is twofold. On the one hand, the Commission is overburdened with cases of minor importance, losing the possibility to focus on significant concentrations, which bear a great risk of jeopardizing the free market game. On the other hand, many companies with concentration of minor importance are faced with the obligation to report a concentration, which increases the uncertainty in business planning of such a venture and postpones its realization. The realization of the Recommendation 3 should reduce the average number of reported concentrations up to 50%, which would certainly bring Serbia closer to the values identified in the focused group of comparable countries. Certainly, the precondition of this realization is the implementation of recommendation 1. In order for the reduction to take place, it is needed to raise the threshold for the obligation of concentration report, which would assume the change of the article 61 of the LCP.

How can we carry out this correction? The first

possibility assumes the analysis of total income level of all participants in the concentration process and the structure of income by individual participants of every separate concentration on an annual level. Thus, we can find the break-even point of cumulative thresholds leading up to the desired level of reduction. This analysis is needed to be performed for more successive years (for example, since the time of Commission establishment) in order for the break-even point to be the most representative for the conditions on the Serbian market. The other possibility assumes the correction of thresholds according to their levels within other comparable countries, which is the average number Serbia should tend to obtain (the mentioned reduction of 50% would bring Serbia closer to the mentioned average). In that sense, since the recommendation assumes the convergence towards the average of analyzed countries, the threshold correction should follow this average. The third, and maybe the most fundamental possibility is the correction of thresholds according to the recommendations of the first two stated models of correction. Since the laws in this area are not generally desirable to be often changed, the threshold correction should be approached with due attention.

In order to illustrate the disproportion in the level of thresholds (Serbia compared to analyzed countries) we illustrate one component of the thresholds, "Achieved income of each of at least two participants within the country territory", which is comparable to the level of country group covered by this analysis, among which Serbia.

According to Table 4, it is evident that, apart from Slovenia, all other countries have set this component of the threshold on a much higher level, and in some cases, that is multiple compared to Serbia. For example, Croatia

and Hungary have set values over ten times bigger than Serbia. Bearing in mind that one of the suggested solutions is that Serbia evens its threshold or at least makes it closer to the average of country group, this component sets two scenarios. According to one scenario which includes all stated countries except Serbia, the thresholds should be lifted over five times. According to the other scenario, which is milder and thus more realistic, where besides Serbia, the average excludes Hungary and Croatia as extreme examples, the thresholds should be lifted for about 100%.

### Recommendations which do not assume the change of existing legal solutions

The implementation of the following recommendations does not assume changes in the LCP and the corresponding bylaws. It will turn out that the dominant actor and initiator of their execution, among other relevant parties will be precisely the Commission for competition protection.

#### *Recommendation 4: Creation of "guidelines" by the Commission*

In order to increase transparency of the Commission's actions in cases of inquires, mostly referring to concentration and abuse of dominant position cases, it is necessary for the Commission to create guidelines which will contain practical steps of action explaining the implementation of the LCP. The increase of transparency would have a positive effect on legal certainty during company business planning. In that sense, it is necessary to develop guidelines for the regulation of horizontal company mergers and guidelines for the definition of relevant market.

**Table 4: Thresholds for the obligation of concentration report**

Countries and averages	Achieved income of each of at least two participants within the country territory (in Euros)
Serbia	1,000,000.00
Croatia	13,326,394.72
Hungary	1,795,848.00
Czech Republic	10,050,251.26
Bulgaria	1,533,875.64
Romania	4,000,000.00
Slovenia	1,000,000.00
<b>Average (without Serbia)</b>	<b>5,284,394.94</b>

Source: Competition protection laws of selected countries



Besides the law and bylaws, the set of rules also includes guidelines prescribed by the Commission, which, although without legal weight, have a significant role in the functioning of the competition protection system. The guidelines define practical steps of action of the Commission in the inquiries carried out. In the developed systems of competition protection, firstly referring to the supranational systems of EU and USA, the role of guidelines is crucial. That role is specially emphasized in the American system of customary law, where, due to the importance of the regulatory body, the guidelines practically have the legal-biding strength when cases get a court epilogue. The guidelines represent and describe those actions which are practically not meant to be within the laws and bylaws regulating this area.

Setting guidelines by the Commission, a level of legal awareness is raised in the businesses which might become the subject of analysis of the Commission. These guidelines also help to better understand this issue area when it comes to courts which are obliged to decide on charges against the solutions set by the Commission. The legal framework of competition regulation is the needed basis for constructing the system of competition protection, while the very implementation of this policy assumes much more interpretation and management of the articles of the law.

Defining the relevant market, closely explained in [14, article 6], represents the key step in regulating horizontal concentrations, determining the dominant company position and thus the possibilities for its abuse. The definition mostly assumes the use of quantitative economic-econometric tools and principals of definition based on which the same are carried out. Referring only to the mentioned article of the law and the bylaws concerning the precise definition of the relevant market, it is not possible to understand what is taken as the criteria of definition, thus making it impossible to understand the limits of this market. One of the possible principles of definition with a very spread use and numerous modes of implementation is the so-called “test of the hypothetical monopolist”, which should take into consideration and adopt its mechanism to the conditions of functioning of the domestic markets while forming guidelines.

The Commission’s steps of action while inquiring the horizontal company mergers (concentration) should also be codified by guidelines, which up to now, as far as the relevant market is concerned, has not been done. Only by interpreting the actual Law it is not possible to understand how the Commission carries out the inquiry process. Setting guidelines for horizontal mergers would increase the possibility of the companies to plan their external growth, i.e. to estimate whether their venture is according to the law. That way, these companies would avoid unnecessary costs connected to making a choice which bares a great possibility to be blocked by the Commission’s decision. The guidelines of this type would have to contain a simple quantitative concentration test, based on *Herfindahl-Hirschman* index of market concentration. This test offers a very useful preliminary indication of the potential influence of concentration onto the conditions of competition on the determined relevant market. Thereby, the test should be calibrated in accordance with the dominant levels of concentration of the domestic markets, in order not to be too restrictive or too mild towards those concentrations. In the majority of inquiry procedures carried out by the Commission in the domain of concentration control, this quantitative test is used in order for its formalization within the guidelines not to represent an unknown fact for the Commission.

While forming the guidelines, besides own experience based on the implementation of the LCP, we should take into account the results from [2], [3] and [6] (on a supranational level), but also the guidelines of comparable EU country members with longer experience in the competition protection policy than Serbia. Revising other best practices conjoint with own experience is the model to be followed when forming the missing guidelines. Of course, integral copying of guidelines formed by others is inappropriate if the steps of those guidelines are not possible to be realized in precise cases. Besides guidelines for defining the relevant market and concentration control in near future (for 3 or 4 years), it is necessary to define guidelines for the determination of the abuse of dominant market position. This is valid under the condition that in a certain time period there is enough experience accumulated in solving cases in this domain, but also to

master the technique of determining the relevant market, which is the basic precondition for the determination of the dominant position existence. This period surpasses the limits of our analysis, so we do not consider these guidelines necessary to be adjoined to the set of our given recommendations stated in this paper. Why is that so? Namely, this form of guidelines, as a codification of successful practice of the Commission in this domain comes on a higher level of its development, when the Commission mostly surpasses the problems connected to the definition of relevant market. This statement is confirmed by the fact that there is a relatively significant time lag between guideline introduction of this type and the previous two, even in the practice of the European Commission [4].

*Recommendation 5: Education training for judges of the Administrative Court in the domain of economics*

In order to improve the understanding of the competition protection policy in the domain which assumes the economic-econometric argumentation whilst proving the made or potential damages to competition, it is necessary to educate the judges of the Administrative court.

The direct control of the final Commission's decisions is, according to the article 71 of the LCP in the jurisdiction of the Administrative court. Therefore, all potential claims by the companies against the final decisions of the Commission are directed to the Administrative court for consideration. The Administrative court has the possibility to confirm the solution of the Commission, to cancel it or to order the Commission to re-inquire the case. The last two possibilities assume that Administrative court, as an independent body, does not agree with the Commission's solution, i.e. with its argumentation which confirms the influence of the precise company onto the competition conditions of the market. This of course means that the Administrative court is competent to understand the argumentation stated in the final solution of the Commission. There is however, a problem when it comes to the argumentation of economic nature.

Parallel with the strengthening of the expert capacities of the Commission, it is also needed to strengthen the expert

capacities of the Administrative court, by permanent judge education. The adoption of needed economic knowledge from the domain of game theory, industrial organization and econometrics is essential for the functioning of the Administrative court in this area. Certainly, we can not expect the judge of the Administrative court to analyze the given economic problems with the same level of expertise as the very Commission, which does this as single job. However, the judges should be able to understand the logic of the economic argumentation in the Commission's solutions, but also of the sides which press charges. The court should be enabled to estimate which side has more arguments to be right, since in this domain there are no absolutely correct solutions.

The point is that the majority of the most important cases carried out by the Commission, have never been approved by the Court (example of the concentration of company Delta from 2006 is especially illustrative in that sense). The last in a row of significant cases where a negative opinion of the Commission was not accepted refers to the concentration of the domestic sugar producer, company *Sunoko* over the company *Hellenic Sugar Industry*. Due to this solution, the Commission addressed the public with the text entitled "Why does the administrative court ignore the public opinion?" [8].

Comparing Serbia and Croatia, from 27 Commission results which gained a court epilogue in a two-year period (2010-2011), the court did not accept the solution from the Commission in 4 cases, while in Croatia one solution was not accepted out of 29 in the same period. Generally, absolute numbers in this case are not equally important as with competition. Thereby, it is good to mention that an almost standard practice of the domestic courts is to not accept the Commission's solutions due to legally-processing or procedural reasons, and thus the time expiry of solution actions. As an example which is most recent, we can mention the cartel deal between the seven greatest drug producers and six biggest drugstores which was not accepted by the Court due to the time expiry of actions set in the Commission's solution. On the other hand, we can conclude that it is unacceptable for the Commission to let such things happen. Besides permanent education of the judges of the Administrative court on the subject of the

economics of competition, we consider the competition law to be an extremely complex area which deserves the formation of a special department of judges, specialized in the subjects of this domain.

*Recommendation 6: Cooperation of the Commission with other elements of the system for promotion and competition protection*

In order to increase efficiency in the competition protection system it is needed to strengthen the communication and cooperation of the Commission with entities which, besides Government and courts, form the system for promotion and competition protection in a broader sense. Under other entities we assume all regulators of specific sectors, but also the entities for the control of public procurement and state aid, as well as customer protection associations.

When we refer to regulators of specific sectors, we firstly mean the National Bank of Serbia (NBS), the The Republic Broadcasting Agency, the Securities Commission, the Energy Agency of the Republic of Serbia as well as the Republic Agency for Electronic Communications (RATEL). The institutional cooperation of the Commission with sector regulators is crucial for a more efficient implementation of the LCP in the sectors under the jurisdiction of these regulators. Namely, the sector regulators, with actions defined by special laws should also synchronize their activities with the LCP. When that is not the case, the sector regulator should inform the Commission of such circumstances. On the other hand, many activities of the sector regulators within branches which are the subject of regulation can have indirect effects onto other connected branches, i.e. other connected markets. To adjust activities of the Commission's actions and sector regulators is one of the crucial links for the functioning of the system of promotion and competition protection in the seen broader sense.

In order to strengthen the relationship between sector regulators and the Commission, it is necessary for the Commission to sign protocols of mutual cooperation with all stated regulators with strong mutual will to respect those protocols. Up to now, the protocols have been signed with the National Bank of Serbia, the the Energy

Agency of the Republic of Serbia as well as the Republic Agency for Electronic Communications. According to that dynamics, two additional protocols with important regulators remain.

In the majority of EU countries, as well as those served for comparative analysis, the control of state aid is integrated into current activities of their competition protection commissions (stated in Table 2). Also, it is not rare that the control of public procurement in developed market economies is put in the control of the competition protection commission, such as the case in Czech Republic and Slovenia, for example. In Serbia, these activities are in jurisdiction of other regulatory bodies. Both stated areas are also regulated by special laws – for details see [17] and [18]. The goals of both mentioned laws are totally in accordance with the LCP, which makes their execution perfectly compatible.

It is evident that every set up tender represents a direct intent to eliminate competition between companies, as tender participants. The importance of public procurement is thus bigger bearing in mind that public procurement stands for about 16.7% of EU member countries' GDP, whereas this percent is even bigger when it comes to Balkan countries [13]. In order to have a more efficient control of public procurement, a closer institutional cooperation between the Commission and the Center for public procurement is highly needed.

The control of state aid is of essential importance when competition conditions are in question. Generally, every state aid has the potential to put some market participants into an unequal position by favoring others. Such state behavior endangers the competition conditions of the market, but in some cases can not be avoided. The role of regulators in this domain is to decide which kind of state aid is considered approved and which is not. The great extent of state activities on this field is characteristic for Serbia, and thus there is such a great interest of the EU to decrease this activity extent to an acceptable level. Currently, the biggest regulation problem in this domain is precisely the fact that the Commission for the control of state aid does not have the needed dosage of independence, since it is basically under the patronage of the Ministry of finance and economy. In other words, the Commission for

the control of state aid is directly under the influence of the aid giver, which is a bit paradox. On the other hand, the role of the Commission for the competition protection is minor when the functioning of the Commission for the control of state aid is concerned. The only role of the Commission for the competition protection is to address a suggestion for the selection of one member of the Commission for the control of state aid, which is insufficient for a more effective bonding of these entities in the process of law implementation with the identical goals.

Whether we are talking about state aid or public procurement, one of the solutions to these problems assumes a closer cooperation of the Commission for the competition protection with all mentioned official regulatory bodies. The other solution would be to place the control of public procurement and state aid within the authority of the Commission for the competition protection, which would maybe represent the most efficient solution when it comes to competition protection. Of course, the last mentioned suggestion would certainly involve serious commission capacity restructuring and enlargement.

Since the beginning of 2011 in Serbia we have in force the Law on customer protection [20]. This law protects the customer rights from unconscious producers and merchants. This area could be considered compatible with the area of competition protection carried out by the Commission. There is no formal regulatory body to carry out this law. The role of regulator is assumed by NGOs for customer protection, with the role to send the notifications to the public when the customer endangerment occurs. The cooperation between the Commission and these associations could be seen in the desire to impose subjects of interest to the public where both customer and competition protection are an issue.

*Recommendation 7: The increase of the competition protection transparency importance*

The Commission and Government must invest additional efforts in order to make the importance of competition protection more transparent and understandable to wider audience (companies and consumers). The public pressure, when it comes to competition protection, can be a strong

ally of the Commission. As stated in [13], the activities on competition advocacy in any state, represent a never-ending task. Serbia is only at the beginning of this task, since the public is quite scarcely informed about the subjects of competition protection. Public promotion of competition importance for the market participants would demystify the way of functioning of the market game, which would eliminate doubts connected to the implementation of the LCP and increase the business certainty, when it comes to companies. This promotion would also indicate the advantages of competitive pressure to both consumers and producers, which are practically the subject of regulation.

During the implementation of this recommendation it is essential to significantly engage the Commission in the field of promoting results of achieved activities during the year. If these activities are not promoted, an impression is formed that the Commission is not doing its job. Regular pointing out of all relevant decision and events in which the Commission takes part in, must be transparently published both on the internet page of the Commission and in all other relevant media (press and electronic). For those purposes, it is desirable for the Commission to have at least one person permanently engaged in PR. The presence of the Commission's president in public is also crucial for the quality of publically promoted activities of the Commission. For example, the low rate of Serbia, when it comes to the effectiveness of the anti-monopoly policy (Table 1) and the bad position for that criterion of total competitiveness on the list of WEF is mostly due to bad promotion of the Commission's activities and results. This can be determined bearing in mind that the value of the Index of anti-monopoly policy effectiveness is mostly based on the perception of Serbian top management which gives bad ratings to domestic competition protection policy, often not knowing its actual performance.

## Conclusion

The implementation of measures given in this study should improve the competition protection system core functioning, which is a needed condition in order for the system to function as a whole. Recommendations form a connected system of actions needed to be implemented in



a “shorter” mid-term period (3-4 years) in order for the system of protection and competition promotion in Serbia to function according to comparative systems with longer tradition and more significant results in this area. We should bear in mind that the implementation of certain recommendations is a precondition for the implementation of others. That mostly refers to recommendation 1, which, once implemented, solves the main problem of Commission’s financing.

Within the paper we have analyzed seven relatively complex recommendations, divided into two homogenous groups, depending whether they demand or not the change of legal settings in order to be implemented. We have suggested possible ways to assure stable, foreseeable and sufficient funding sources of the Commission, which shall turn out as one of the basic conditions for its independence, but also the forming of optimum human resource structure needed to implement all elements of the Law. In order to diminish the overburdening of the Commission with the cases of little importance for competition terms, we have suggested performing serious reduction in the number of registered concentrations during the year by adequately lifting the legal thresholds for the obligation of concentration report.

In the part of the recommendations which does not refer to changing legal elements, we have suggested that the Commission sets up guidelines from the domain of defining the relevant market and concentration control. The guidelines describe the Commission activities while defining the relevant market and concentration control, thus decreasing the legal uncertainty which follows these essentially economic categories of the LCP. The education of judges of the Administrative court in order to better understand the economic topics from this generally legal area is also stated as an important element of implementation. Recommendations also include the cooperation of the Commission and other governmental and non-governmental entities which form the system of competition protection and promotion in a wider sense, but also the importance of promotion of competition to a wider audience. The central actor of these activities is, as we have seen, the very Commission for competition protection.

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## QUALITY ANALYSIS OF HOTEL SERVICES USING SERVQUAL METHODOLOGY

Analiza kvaliteta hotelskih usluga primenom  
SERVQUAL metodologije

### Abstract

Quality management represents an imperative for all the hotels on the current tourism market aiming to capitalize on customers' satisfaction and create superior value in comparison to the competition. The quality of service is important for keeping the guests and represents a key indicator for further economic activity. The demand for creating better quality related to products and services has become one of the most important strategic priorities currently being faced by hotels. The choice of the method implemented by a hotel in order to provide certain quality, determine related costs, and quantify expenses coming from unsatisfying level of services provided in the hotel industry, is of paramount importance to creating appropriate measures for the improvement of hotel services that is necessary precondition for doing business and surviving on the market.

One of the most popular methods for measuring quality in the service sector is Servqual method based on the comparison of customers' expectations related to service quality with the perception of the actual services provided to the customers. The main result of the analysis is Servqual gap indicating an average variation of guest perception (services perception rating) from the preliminary expectations (services expectation rating). On the basis of the gap between the actual services and expected ones, the hotels determine specific measures directed at further improvement of hotel services.

**Key words:** *quality management, hotel services, SERVQUAL*

### Sažetak

Upravljanje kvalitetom predstavlja imperativ za sva hotelska preduzeća na savremenom turističkom tržištu čiji cilj, ostvarivanje profita, proizilazi pre svega iz satisfakcije potrošača i obezbeđivanja superiorne vrednosti u odnosu na konkurenciju. Kvalitet usluge je od najvećeg značaja za zadržavanje gostiju i kritičan pokazatelj buduće ekonomske aktivnosti. Zahtev za boljim kvalitetom proizvoda i usluga, jedan je od najvažnijih strateških prioriteta s kojim se suočavaju hotelska preduzeća. Na koji način i primenom koje metode će hotelsko preduzeće obezbediti određeni kvalitet, utvrditi troškove tog kvaliteta, kao i troškove koji proizilaze iz eventualno nezadovoljavajućeg nivoa kvaliteta usluga u hotelskoj industriji predstavljaju ključna pitanja prilikom razvijanje mera za unapređenje kvaliteta hotelskih usluga kao osnovnog preduslova za uspešno poslovanje i opstanak na tržištu.

Jedna od najpoznatijih metoda za merenje kvaliteta u uslužnom sektoru je *Servqual* metoda koja se zasniva na poređenju očekivanja korisnika po pitanju kvaliteta usluge sa percepcijom kvaliteta stvarno pruženih usluga. Osnovni rezultat analize je *servqual* jaz, koji pokazuje koliko percepcija gosta („*servperc* rejting“) u proseku odstupa od preliminarnih očekivanja („*servexp* rejting“). Na bazi uočenog jaza hotelska preduzeća predlažu konkretne mere za unapređenje kvaliteta hotelske usluge.

**Ključne reči:** *upravljanje kvalitetom, hotelske usluge, SERVQUAL*

## Introduction

In the period of globalization of markets, growing competition and unpredictable business environment, service quality management and its quantification is becoming one of the most important issues related to marketing and business strategy of the hotels. The quality does not necessarily involve solely high performance products, as sometimes providing an economical and suitable response to customers' needs is sufficient for achieving certain level of quality.

Quality control system and quality management system have been increasingly developing for the last 20 years. In comparison to the system of direct and statistical quality management which dominated in the past, a current quality management system has gained a broader meaning. The prevailing concept of quality control in the enterprises is known as Total Quality Management (TQM) representing "management system focused on people with the aim of increasing customers' satisfaction followed by continuous costs deduction" [7]. TQM (see Figure 1) tackles quality as a dynamic category, insisting on continuous improvement of overall enterprises' performances and continuous costs reduction. This concept monitors the quality of overall business processes within an enterprise and demands the involvement of all employees ignoring hierarchical level within the process of control and quality management. A total quality presents strategic decision of an enterprise. The main focus is on the customers and their needs and quality is quantified by the facts, not by the given opinions (see Figure 2).

In order to improve the quality related to hotel services, managers often encounter the problems related to quality quantification due to lack of appropriate methods for determining the expectations and perception of a guest regarding the quality of services. In other words, hotel managers quite often do not possess information regarding customer's priorities when evaluating hotel products.

## Defining the quality of service activities

Quality as the concept is not easy to define and therefore a large number of different definitions appearing in the literature should not be surprising. The simplest definition says that quality is conformance to predefined requirements [12]. This definition assumes that quality management is based on predefining the requirements and standards that should serve as an objective inspection benchmark and the parallel improvement of realistic performances. The other approach [19] defines quality as conformance of product or service to customer's needs. In other words, only product or service satisfying consumer's or customer's needs is a quality product or service. If they are carefully considered, it is noticeable that the previous two definitions are complementary. Namely, only customer may assess the quality as the conformance of product or service characteristics and performances with the declared needs of the very customer. The point at issue is the concept of customer's perception of quality, analyzed by a larger number of authors (for example, [29]).

If the analysis is focused on the area of service quality, a logical question is raised in which way it is possible to explicitly define customer's perceptions of service to serve as the standard for measuring service quality. Observed in a simplified manner, it is quite possible to differentiate the objective quality measures which can be exactly determined from subjective measures which are based on less visible customer perceptions of service. So for example, *Swan and Combs* [37] make difference between two dimensions of service quality: instrumental and expressive. Instrumental dimension refers to relatively measurable aspects of service, such as time spent at cashier register in supermarket. Taking into account that service is delivered in an interaction between service provider and customer, the customer's experience during service provision and consumption has an increasing importance to service quality. This is expressive dimension of service

Figure 1: Development of quality system





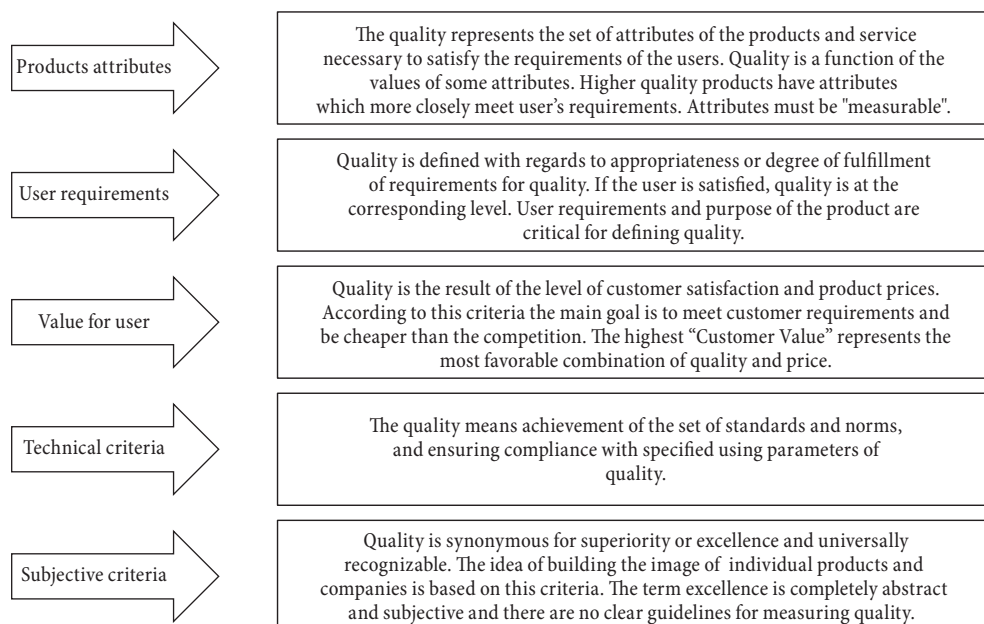
quality which can neither be precisely visualized nor measured. An example can be perception of personnel courtesy in supermarket.

It should be emphasized that the measurement and management of service quality is much more demanding than in case of product, bearing in mind the domination of expressive component and the fact that service is at the same time produced, delivered and consumed, which is not case with products that can be stored [14]. Consequently, the issue of defining the standard for measurement of quality remains open. General absence of measureable criteria requires insight into abstract service attributes, i.e. into abstract customer expectations. This means that customers assess the quality of services on the basis of comparison of their perceptions after consuming the service with the previous expectations, i.e. that the same service may be assessed as under-average by a customer with high initial expectations or over-average by a customer with lower preliminary expectations. Additional aggravating circumstances for measurement of the quality of services are their intangibility or immateriality, changeability in the course of time, heterogeneity and completeness (customer of more services observes them as a single package), which means that one service offered more times in identical ambient can be differently assessed by the same customer.

Special attention should be paid to the analysis of relationship between quality and satisfaction. Authors usually define satisfaction as the emotional reaction or psychological condition in which customers are after consuming the service, since their expectations have been confirmed or surpassed [28]. A significant number of authors claim that the difference between satisfaction and quality is in the fact that satisfaction is related to one transaction and the relationship between perception and expectation within such transaction, while quality is related to general assessment of service system of a concrete company, taking into account empiric dynamics during a longer period of consuming service [30]. In addition, for many years a battle has been fought in literature to prove whether satisfaction is the assumption of quality or vice-versa. Leaving aside this debate, it can be concluded that the quality undoubtedly affects customer satisfaction, but also that customer satisfaction affects assessment of service quality, i.e. that both attributes are vital for customer decision-making whether to consume concrete service in future.

Moreover, it is very important to analyze relationship between customer satisfaction, quality and financial performances of a service company. *Hesket et al.* [18] in their service-profit chain analysis have proved a strong correlation between internal service quality (for example,

**Figure 2: Criteria for quality defining**



Source: [19]

quality of working environment in a hotel), employee satisfaction (manifested in keeping quality personnel and increasing their productivity), external service quality (courtesy, fast delivery of service to guest), customer satisfaction and loyalty (assured by satisfaction index) and profitability increase of service company. *Zeithaml et al.* [40] have identified positive correlation between service quality and financial results, proving that customers are willing to pay a premium for higher quality services and remain loyal even when service prices are increasing. It is quite clear that service quality may not be managed unless there is the systematized manner of measuring service quality. *Ramaswamy* [33] proposes three groups of quality measures:

1. Internal measures,
2. Market measures, and
3. Financial quality measures.

Internal quality measures refer to the performance of internal processes in producing and providing services (for example, fulfillment of technical requirements). Market measure refers to customer perceptions when consuming the service. Financial measures refer to financial health indicators of a service company. Correlation between internal and market measures defines the quality from the customer's point of view, while relationship between market and financial measures defines the impact of perceived quality on profitability of service company. This approach greatly reminds of the logic of strategy maps introduced by *Kaplan* and *Norton*, where financial measures are at the top, as lagging indicator, while market and internal indicators have the status of leading indicators [20].

A large number of authors agree that service quality has five key dimensions [41, p. 82]. These are: reliability (the ability to perform the promised service dependably and accurately), responsiveness (the willingness to help customer and provide prompt service), assurance (the knowledge and courtesy of employees and their ability to convey trust and confidence), empathy (the understanding of customer's needs, individualized attention to customer), and tangibility (the appearance of the physical facilities, equipment, personnel and communication materials).

## Characteristics of services in the hotel industry

If we disregard service quality attributes previously mentioned in generic form, hotel service is specific by very frequent contacts between bidder and customer, making this sum of contacts the base for creation of guest's final perception about the level of provided quality. The consequence of the above-mentioned is that hotel service quality management is dominantly based on guest contact management [40]. For this reason, it is no surprise that many hotel companies have invested huge amounts of money into the development of service delivery system which would continuously provide customer with high quality service in each individual contact with representative of a hotel company.

Many authors call the contact of employee and guest a "moment of truth" [14], [22], [23]. It is the moment of contact between the guest and delivered service (personnel or self-service equipment) when the guest's perception about quality level of the delivered service is spontaneously formed. In this shorter or longer moment, careless mistake by an employee, a rude behavior or an unanticipated request by the guest can result in a dissatisfied guest, irrespective of other service attributes (for example, food quality in hotel restaurant) being excellent [22, p. 353]. For example, hotel guest may, during his/her stay in hotel, experience several contacts when booking a room, checking-in at reception desk, carrying the luggage to room, having meals in hotel restaurant, using various in-house services and checking-out from hotel. During these contacts, guests form a single image of hotel service quality. For the very hotel, each new contact with guest is an opportunity or chance to improve guest's perception or keep the existing one if it is at the satisfactory level. Moreover, each service contact entails the risk that the initial positive perception of guest can be jeopardized.

*Zeithaml and Bitner* [41, pp. 102-104] identify three types of contacts between hotel and guest in terms of physical proximity: remote, phone and face-to-face contact. Remote contact is not based on the relationship between people. Good example is booking a room via Internet. This is usually the first contact of the guest with hotel, where potential guest becomes familiar with hotel

web page and technical quality of booking procedure. Similar form of the contact, to be fair, with interactive human component, is phone contact (booking a room or a table or exchanging information on hotel facilities by phone). Base of service quality in this case can be: voice of hotel personnel, courtesy, readiness to listen, as well as knowledge and speed to respond to inquiry. Finally, face-to-face contact of guest and hotel personnel is critical for formation of guest's perception. At that point, all hotel service attributes become prominent, such as verbal and nonverbal communication, but also visible elements, such as appearance of the interior, equipment, personnel, taste of food, odor of premises, etc.

More methods used to reduce probability of the occurrence of hotel guest dissatisfaction with service quality are mentioned in literature. *Zeithaml* and *Bitner* [41] specify four key themes to which attention should be paid: service recovery, adaptability, spontaneity and responsiveness. Service recovery refers to the response of hotel employees to the occurrence of major failure. The essence is to acknowledge the problem, assume responsibility, explain causes, apologize and compensate guest as necessary. Adaptability is the employees' adjustment to the guest's requests or needs. The essence is in anticipation of the guest's needs and requests and timely adjustment of service delivery system. Spontaneity refers to deep personnel's reaction, through being attentive in service delivery, listening to the guest, providing feedback and showing empathy according to the guest's needs. Responsiveness is availability of employees at any time and possibility to provide complete service packing.

Generally, the services are characterized by intangibility, which creates need for the introduction of larger dose of materiality or tangibility in the very context of delivered service. For example, in the restaurant ambiance it should be insisted on presenting the process of physical food preparation in front of the guest, whereby the probability of later dissatisfaction is reduced. Nonverbal communication is of the great importance when providing hotel services. Expressed friendly attitude, responsiveness and enthusiasm to go out to meet the guest's requests significantly affect their total quality assessment of delivered service. Communication signals have a particular value, like

glances, nodding the head, shaking the hand, smiling, distance, body posture during communication, color and pitch of voice and personnel's physical appearance. The authors point out that hotel personnel must be continuously trained in improving nonverbal communication skills.

### Measuring customer satisfaction by using SERVQUAL methodology

Models of service quality measurement have their roots in the frame established in the 1980s and the 1990s by *Parasuraman* and his colleagues [30], [31], [32]. This model is based on the analysis of five gaps (see Figure 3):

1. Gap in understanding customer's needs (the difference between customer's expectations and management's perceptions of customer's expectations).
2. Gap in service quality specifications (the difference between management's perceptions of customer's expectations and service quality specifications).
3. Gap in service performances (the difference between service quality specifications and performances of actually delivered service).
4. Gap in communication (the difference between performances of delivered service and information related to service to consumer).
5. Gap in service quality (the difference between service quality expected by customer and customer's perception of actually delivered service after consuming it).

The first gap may be the result of imprecise information from market analysis, poor interpretation of information related to customer's expectations, inadequate analysis of feedback by customers through complaints or formalized positive attitudes, as well as of high organizational structures with slow or deformed information flow. The second gap is the result of an inadequate planning system, improperly set organizational goals and insufficient support of the top management to service quality improvement. The third gap occurs due to insufficient training or indiscipline of the personnel. The fourth gap results from an inadequate communication strategy of the company, unsynchronized market efforts, as well as poor internal communication

between different sectors within the company. The first four gaps are the base for forming the fifth gap, being the basis for measuring service quality, given that it is focused on the deviation of delivered service performances from predefined customer expectations as the standard of comparison.

Logic of SERVQUAL methodology is based on the gap number five, i.e. on the comparison of subsequent perceptions with preliminary expectations, of course, from the customer's point of view. More precisely, indirect comparison of subjective expectations is carried out prior to consuming service and perceptions after consuming service. Service quality is determined on the basis of the mean value between expectations and perceptions within 22 attributes. 22 mean values for each individual attribute are further grouped into five differential scores for each dimension or factor. Basic result of the analysis is SERVQUAL gap which shows how much the guest's perception (SERVPERC scale) in average deviates from the preliminary expectations (SERVEXP scale). SERVQUAL results can be used for identifying the service components which are extremely good or bad. Furthermore, they can be used for monitoring service quality in the course of time,

for comparison of service performances with competition, and for measuring customer satisfaction by its individual elements and integral service packing.

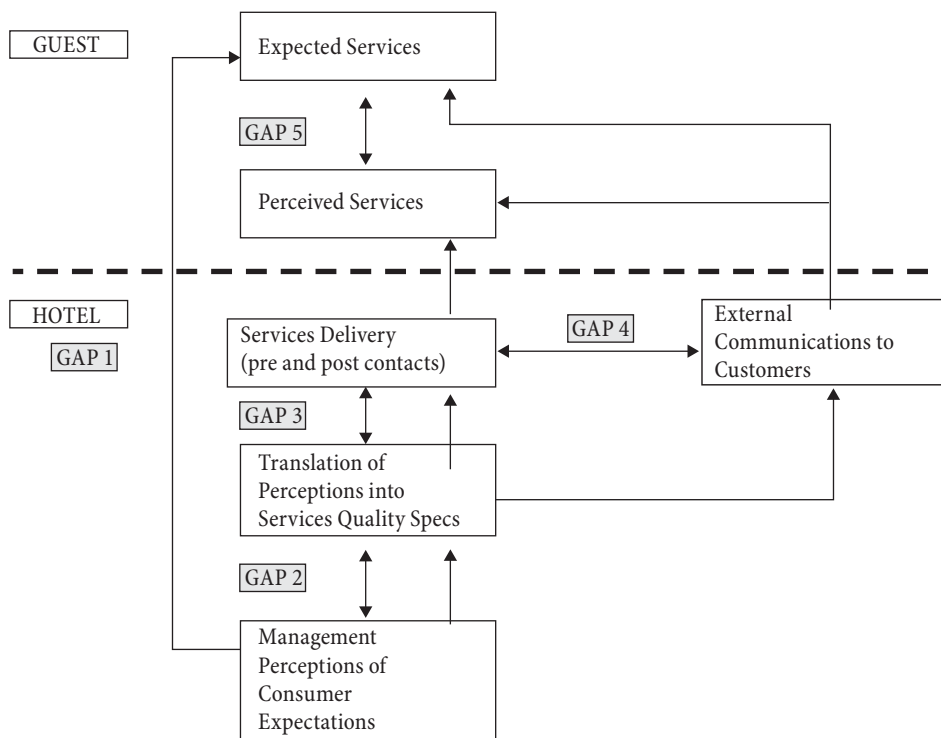
SERVQUAL methodology foresees a form of survey consisting in total of 22 questions within five service quality dimensions:

1. Tangibles – questions 1-4,
2. Reliability – questions 5-9,
3. Responsiveness – questions 10-13,
4. Courtesy and security – questions 14-17,
5. Empathy – questions 18-22.

The result of the implemented survey of predefined samples of hotels and guests is the mentioned gap analysis. The base for gap analysis is numerical data being entered into the form of table (see Table 1). Numerical data are obtained, as we've already mentioned, on the basis of the standardized questionnaire.

The next step is to credit each of five service quality dimensions with a weighing factor or importance by guests and based on weighing factors from the sample, to derive weighted SERVQUAL score. It is further subject to the qualitative analysis and improvement by impact on the individual attributes where the negative gap is the largest.

Figure 3: Conceptual service quality model based on the analysis of five gaps



Source: [30]



Table 1: Numerical gap analysis when using SERVQUAL methodology

Dimension	Answer	Assessment of expectation	Assessment of perception	Gap score	Average value for dimension
Tangibles	1				
	2				
	3				
	4				
Reliability	5				
	6				
	7				
	8				
	9				
Responsiveness	10				
	11				
	12				
	13				
Courtesy and security	14				
	15				
	16				
	17				
Empathy	18				
	19				
	20				
	21				
	22				
Unweighted SERVQUAL score:					

Different authors propose different modifications of the basic SERVQUAL model, in the first place, through change in the service attributes being assessed. For example, in the hotel sector, which is the focus of our analysis, many research studies have been conducted with the objective to determine which service attributes are more or less significant in creating complete assessment by a guest. Literature review suggests that cleanliness [4], [16], safety and security [21],[16], employees' competence and empathy [10],[25], macro and micro location [21], value for money [16] and tangibles [10] are the attributes to which hotel guests give the highest ponder when evaluating quality of service package in a hotel.

*Akan* [1] developed modified SERVQUAL questionnaire with the idea to apply it to high category hotels in Turkey. He identified the following seven critical dimensions of service: courtesy and competence of personnel, communication and transactions, tangibles, knowing

and understanding guests' needs, speed and accuracy of service, solution to problems and reservation system efficiency. He concluded that courtesy and competence are the most valued attributes among guests. Other modifications of SERVQUAL model refer to the change in gap list, which was earlier elaborated. *Luk* and *Layton* [24], *Shahin et al.* [35] and *Tsang and Qu* [39] identified additional gaps, as the bases used to measure quality. For example, *Tsang and Qu* [39], in addition to the five specified gaps, added another two important gaps into service quality analysis. The sixth gap is the difference between guest's perception of the service delivered and management's belief what actually has been delivered. This gap practically answers the following question: Does hotel management overestimate its service delivery? Namely, studies have shown that hotel managers tend to overestimate their competences and performance [11]. In other words, they frequently believe that service delivery

was more successful than it was perceived by the guests. The seventh gap is the difference between managers' perception of guests' expectations and managers' perception of the service actually delivered. This gap analysis attempts to answer the question: Does hotel management believe that the hotel delivers as much as it believes that customers expect? Measurement of management's perceptions of quality is as significant as the measurement of perception of quality from the perspective of guests themselves.

### Critical analysis of SERVQUAL methodology

Notwithstanding its widespread application, SERVQUAL model has been criticized by a number of researchers [9], [5], [38]. Their criticism is directed towards conceptual and operative base of the model itself, primarily towards its validity, reliability, operationalization of expectations of customers and dimensional structure.

The basic theoretical-conceptual objections can be summarized as follows. Firstly, SERVQUAL is based on a disconfirmation paradigm and not on attitudinal paradigm. The model itself disregards established economic and psychological theories, as it is entirely based on the expressed state of disconfirmation by customer, i.e. on clear inductive reasoning. Secondly, it is not easy to prove that the exclusive basis for measuring quality is the gap between expectations and perception, although there are many research arguments in favor of this thesis. Thirdly, the model is more focused on the process of service delivery than on the result of service encounters itself. Fourthly, the five selected dimensions cannot be universal and comprehensive. The dimensions should be adjusted to the context being analyzed.

From the operative aspect the objections would be as follows. Firstly, customers' expectations need not be of subjective character. Customers very often use absolute and objective standards to define their expectations. Secondly, the attributes within each of the five defined dimensions cannot adequately include variability within the dimensions because of insufficient number of attributes. Thirdly, client's assessment of individual attributes may depend on the "moment of truth", i.e. on the moment the survey is being conducted. Fourthly, although 7 point

Likert scale is recommended, in practice better results are obtained with 5 point scale.

The authors such as *Brown et al.* [8] criticize statistical validity and reliability of the model. One criticism refers to the approach to differential score calculation. Namely, these authors agree that reliability of the obtained final score and the score by dimensions is significantly lower than reliability of the scores at the level of individual attributes, thus decreasing predictive capability of the model itself. The second criticism refers to the measurement of the expectations themselves. By its structure SERVQUAL includes different types of expectations that cannot be measured in identical way. Some expectations are ideal, some are based on minimum tolerance level, whereas some are exclusively connected with the brand perception of the hotel itself. Therefore, aggregate analysis of all expectations is subject to the problems connected with validity and reliability of the results.

### Case studies of measuring quality of hotel service using SERVQUAL methodology

*Saleh and Ryan* [34] are the first authors who applied SERVQUAL methodology to the hotel industry. Their results slightly departed from the original SERVQUAL structure. Namely, the analysis showed that the four factors (tangibles, reliability, responsiveness and consistency) account for about 63% of the total variability of service quality. Also, these authors showed that 5 point scale gives different final results as compared to the 7 point Likert scale and that the attributes within the first dimension of SERVQUAL model (tangibles) are not precisely defined and consequently lead to contradictory responses obtained from the respondents.

*Mei et al.* [27] (1999) assessed the dimensions of service quality in the hotel industry in Australia. They used SERVQUAL base to develop HOLSERV model that is entirely adjusted to measuring quality of hotel service. They established that three dimensions are critical for measuring service quality: employees, tangibles and service reliability. *Fick and Ritchie* [13] applied SERVQUAL model within four sectors (air transport, hotels, restaurants and ski centers). By applying correlation analysis, they concluded that key

expectations of customers are connected with reliability and observance of the predefined standards.

*Antony et al.* [3] measured service quality in six hotels belonging to one British hotel chain, using modified SERVQUAL methodology. A three-star hotel chain in question belongs to the medium price segment. This research was motivated by observed problems, such as complaints of guests in the restaurant part of the hotel, attitude and motivation of the employees, problems encountered with the hotel housekeeping sector, poor communication between management and front-line personnel, as well as slow service in the entire hotel. Using standardized questionnaire the guests assessed five service dimensions. Responsiveness was identified as the most important service dimension and empathy was identified as the least significant dimension. After the guests had completed the questionnaire a series of interviews was conducted with the hotel management in order to analyze other gaps in service quality. Based on the conducted research project, the authors recommended specific measures for improving service quality. Firstly, hotel managers should be closer to their guests in order to better understand their needs and expectations. Secondly, management should delegate more competences and responsibilities to hotel personnel in order to provide higher level of responsiveness and service adjustment. Thirdly, staff needs training in communication with guests and perceiving their needs. Fourthly, at least once a week it is necessary to hold a meeting between management and personnel in order to provide more frequent and better exchange of information and decision making. Fifthly, standardized procedures were not adhered to in the hotel. It was recommended more frequently to conduct direct monitoring of the critical processes and results, say within hotel housekeeping. Sixthly, praises and complaints should be always exchanged with hotel management and the entire chain, to ensure that everybody is aware of the good and bad things in conducting hotel operation. The last recommendation is that additional attention should be paid to the staff recruitment process i.e. it would be the best to standardize this process.

*Akbaba* [2] analyzed service quality in one luxury hotel in Turkey in order to study guests' expectations, estimate

appropriateness of the selected SERVQUAL dimensions and measure the significance of individual dimensions from the guests' point of view. This study was conducted during 2002. Its results confirmed appropriateness of the dimensional structure of SERVQUAL model, which, nevertheless, had to be adjusted to the specificities of hotel business and cultural context within which this research was conducted. The dimension with the highest rating among guests was comfort, followed by the dimensions, such as, tangibles, adequacy of the service provision system, understanding of and care for the guests' needs by hotel personnel.

*Tsang and Qu* [39] analyzed perceptions of service quality in the Chinese hotel industry from the perspective of both foreign guests and managers of the hotels being analyzed. A questionnaire was used to survey in total 90 hotel managers and 270 foreign tourists who visited China and stayed at hotels in Beijing, Shanghai and Guangzhou. The data were analyzed by use of descriptive statistical methods (paired t-test and independent t-test). This analysis was focused on four gaps: between tourists' expectations and their actual perceptions; between managers' perception of tourists' expectations and the actual expectations of tourists; between managers' perception of a hotel's service quality and tourists' actual perception of the service by tourists; and between managers' perception of tourists' expectations and managers' perception of service quality. The results showed that tourists' perceptions of the quality of the delivered service were consistently lower than their initial expectations and that the managers overestimated quality of the service delivered to their guests compared to tourists' actual perceptions.

*Gržinić* [15] designed empirical model for measuring service quality in the hotel industry. The model was applied in the region of Opatija Riviera. The idea of this research was to evaluate guests' expectations and perceptions on a selected hotel sample, to calculate and interpret SERVQUAL gap, to test reliability of SERVQUAL model in the hotel industry and to define more precisely the dimensions of hotel service quality using factor analysis. From a practical perspective, the research project intended to test the adjusted SERVQUAL model for measuring service quality from the guests' viewpoint. The survey was conducted in

16 hotels totally in the region of Opatija Riviera (Opatija, Lovran and Mošćenička Draga), during December 2001 and January 2002. SERVQUAL gap was calculated as the difference between average value of perception and average value of expectations. Results of this analysis are provided in Table 2.

Table 2 indicates several major conclusions. Firstly, average rating of perceptions is lower than average rating of expectations for all five SERVQUAL dimensions. This resulted in negative total SERVQUAL gap. The greatest negative gap was recorded with the dimensions “reliability” and “tangibles”. The guests were mostly satisfied with empathy of hotel personnel given that the gap for this dimension was the narrowest. It is interesting that this study showed that tourists from different countries have different level of initial expectations as regards hotel services. Tourists from Great Britain have the highest expectations, whereas Japanese tourists have the lowest expectations. The dimension to which all guests gave the greatest significance is reliability. Especially disturbing finding of this study, but also of other analyzed studies, is an enormous gap between expectations of the guests, viewed from the aspect of hotel management, and actual expectations of the guests. In other words, hotel management was not well-informed about guests’ expectations, indicating that there is a need to conduct deeper analysis of relevant guest segments.

Following above described example *Marković* and *Raspor* [26] measured guests’ perceptions within the Croatian hotel industry. The objective of this research was to evaluate the observed service quality within the selected hotel attributes and to identify the structure of summary factors or dimensions. Modified SERVQUAL scale was used to evaluate perceptions of domestic and foreign guests in the Croatian Littoral. Twenty nine service

attributes were evaluated in total within five standard SERVQUAL dimensions and two additional dimensions (hotel accessibility and quality of tangibles). The data were collected within 15 hotels (two-, three- and four-star hotels) in the region of Opatija Riviera during the summer of 2007, using standardized questionnaire. The questionnaire was composed of two parts: questions concerning service attributes (7 point Likert scale) and questions concerning demographic profile of the guests (closed questions with multiple-choice answers). The data were analyzed by using the technique of descriptive statistical analysis and factor analysis. The results indicate that there are rather high guests’ expectations as regards service quality. Reliability, empathy, personnel competence, site accessibility and tangibles are the dimensions domineering guests’ expectations. Ability to solve guests’ problems, ability to provide precise service, employees’ attitude, adequate location and exterior and interior are the most significant among attributes. At the same time, these are the attributes with the highest disconfirmation score and to which, according to the recommendations of the authors, hotel managers should pay the greatest attention in the future.

*Blešić, Romelić* and *Bradić* [6] did the research in order to evaluate the quality related to hotel services using the example of Western Moravian resorts in Serbia. They did research using the sample of 10 hotels in 5 resorts (Vrnjacka Banja, Mataruska Banja, Bogutovacka Banja, Gornja Trepca and Ovcara Banja). Four hundred and fifty three guests were interviewed, which is a substantial number in comparison to the similar research studies where the sample was usually comprised of 200 guests at most. Domestic guest prevailed within the sample structure (90.9%). The total number of foreign tourists within the sample accounted 56 guests, i.e. 9.1%. Out of

Table 2: Survey results

Dimensions	Assessment of expectations	Assessment of perception	SERVQUAL gap
Tangibles	6.36	5.70	-0.66
Reliability	6.44	6.00	-0.44
Responsiveness	6.38	5.99	-0.39
Courtesy and security	6.38	6.00	-0.39
Empathy	6.02	5.70	-0.32
<b>Total</b>	<b>6.32</b>	<b>5.88</b>	<b>-0.44</b>

Source: [15]



56 guests, 46 came from former SFRY (Socialist Federal Republic of Yugoslavia) countries, while small percent (1.6%) came from other European countries (Greece, Germany, Russia, France, Sweden, Switzerland and Italy). Analyzing gender structure, the sample includes 54.5% of women and 45.5% of men. Furthermore, 66.5% of the sample represents working population, while 27.2% are retired and 2.3% are students.

Analyzing Table 3 it can be easily concluded that 5 out of 10 indicators belong to the determinant tangibility. The highest average grade refers to question tackling personal and material safety of hotel guests. The question related to hotel rooms hygiene and food quality appears as important issue as well. However, SERVQUAL model does not pay enough attention to tangible elements of services provided, i.e. 4 out of 22 questions are referring to the visible aspects of hotel product. The gap between perceived and expected quality of services is negative in all quality determinants, except compassion variable. The positive gap related to this variable is influenced by low level of expectations (3.9709). The highest level of expectations by the guests is related to safety variable, followed by accountability and reliability. Analyzing small absolute difference within averages, the conclusion is that all the above-mentioned indicators are equally important for the guests. Furthermore, the guests revealed high expectations as well for tangibility (4.5746).

In conclusion, the survey results revealed the fact that small percentage of the guests is satisfied with service provided, that is, their expectations were higher than the quality gained. The biggest SERVQUAL gap refers to determinants analyzing tangible elements of the services (object appearance, food and beverage quality, additional contents). Creating development strategy along with short term and long term plans and stimulating investments

in resort tourism are the ways for overcoming current problems. The survey showed as well that SERVQUAL model does not cover all determinants regarding hotel services quality important for the guests.

Several conclusions can be derived from the analysis of the conducted research. Firstly, the authors apply different modifications of SERVQUAL model as regards selection of dimensions and accompanying service attributes. Some authors developed entirely adjusted SERVQUAL models exclusively for the analysis of service quality in hotels and restaurants. Secondly, SERVQUAL methodology itself has large number of research applications in the hotel sector, but it is also widely applied in other service industries. Thirdly, the focus of the analysis of a large number of authors is on measurement of service quality of individual hotels, and less on systematized analysis of service quality of a larger hotels sample within some tourist destination. Exceptions are *Marković and Raspor* [26], *Gržinić* [15] and *Gutierrez et al.* [17]. Fourthly, all authors analyze the data in more or less similar way, using descriptive analysis, hypotheses testing and occasionally factor analysis, where reasonable. Namely, factor analysis had sense only in the studies aimed at analyzing validity of the selected service attributes and their encircling into statistically meaningful sets or factors. Finally, different studies gave different results. In other words, it is impossible to unify study results of the above-mentioned authors, although dominant trend of negative SERVQUAL gap is noticeable for majority of the analyzed hotel service attributes.

## Conclusion

The supply of services of the highest quality represents the best way for the hotel to gain competitive advantage and to create good relation with the guests. When

**Table 3: Difference between expectation and perception of service quality (Servqual gap)**

Determinants of quality	Perception (p)	Rank	Expectation(o)	Rank	Servqual gap = p-o
<i>Tangibles</i>	3.8274	5	4.5746	4	- 0.7472
<i>Reliability</i>	4.5599	2	4.7152	3	- 0.1553
<i>Responsiveness</i>	4.5431	3	4.7686	2	- 0.2255
<i>Courtesy and security</i>	4.7114	1	4.8889	1	- 0.1775
<i>Empathy</i>	4.2260	4	3.9709	5	0.2551
<b>Total SERVQUAL gap</b>	<b>4.3580</b>		<b>4.5836</b>		<b>- 0.2256</b>

Source: [6]

modifying and creating their vision, the managers should ignore short-term financially oriented goals and focus on creating long-term partnership with their target groups. Concepts such as: expected values, perceived values and guests' satisfaction should have an important role in management decisions. Evaluation of guests' expectations and calculation of SERVQUAL gap (perception minus expectation) represent best method for detecting the absence of quality. The key goals of this paper were to evaluate expectations and perceptions of the guests in the hotels, to calculate the difference between perceived and expected services quality, and to determine quality determinants important for the guests.

As the result of the criticisms, other models for measuring service quality have been created. However, none of the offered alternatives succeeded to replace SERVQUAL in practice. Despite a barrage of criticisms of the model, there is a general consensus that SERVQUAL model is currently the most acceptable model for measuring service quality and that the analyzed attributes are reliable predictors of integral service quality. However, the issue that surely will continue to be discussed in academic circles is whether service quality can be measured as the relationship between previous expectation and subsequent perception of customers.

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## OPINION OF SERBIAN STUDENTS REGARDING KNOWLEDGE ECONOMY<sup>1</sup>

### Mišljenje studenata iz Srbije o ekonomiji znanja

#### Abstract

Global economic crisis has shown that only countries with high rate of innovation can preserve high levels of economic growth in an unstable environment. Furthermore, it has been proven that nation's and the world's future economic growth will stem from industries that rely on knowledge, new ideas and innovation. Therefore, creation of a knowledge economy became a global challenge and a primary goal of countries around the world. The authors have conducted a survey of 324 undergraduate and postgraduate students in Serbia in order to grasp their opinion regarding knowledge economy. The results have shown that concept of a knowledge economy is not well established and understood in Serbia and that students consider the knowledge as important feature but not valued enough. These findings present a big policy challenge since the future of a country strongly depends on the knowledge of generations to come. The paper will provide a set of recommendations on how Serbia could bridge this gap between global challenges and its young generations. Experiences and the recommendations from this case study might be of use for other countries in transition.

**Key words:** *knowledge economy, sustainable development, transition countries, educational system*

#### Sažetak

Svetska ekonomska kriza je ukazala na činjenicu da jedino zemlje sa visokom stopom inovacija mogu da sačuvaju visok nivo ekonomskog rasta u nestabilnom okruženju. Osim toga, dokazano je da će se svetski ekonomski rast bazirati na industrijama koje se oslanjaju na znanje, nove ideje i inovacije. Dakle, stvaranje ekonomije znanja je postalo globalni izazov i primarni cilj zemalja širom sveta. Autori su sprovedi anketu u kojoj su učestvovala 324 ispitanika, studenti osnovnih i postdiplomskih studija u Srbiji, kako bi saznali njihova razmišljanja o ekonomiji znanja. Rezultati su pokazali da koncept ekonomije znanja nije dobro uspostavljen i shvaćen u Srbiji i da studenti smatraju da znanje ima izuzetan značaj, ali da nije dovoljno vrednovano u Srbiji. Ovi rezultati predstavljaju veliki izazov za društvo u celini, jer budućnost države zavisi od znanja generacija koje dolaze. U radu će biti iznet i niz preporuka o tome kako bi Srbija mogla da premosti ovaj jaz između globalnih izazova i njenih mladih generacija. Iskustva i preporuke iz ove studije slučaja mogu biti od koristi i za druge zemlje u tranziciji.

**Cljučne reči:** *ekonomija znanja, obrazovni sistem, održivi razvoj, zemlje u tranziciji*

#### Introduction

*Govindan* defined globalization as a "process of deepening economic integration, increasing economic openness and growing economic interdependence between countries in the world" [8, p. 5]. Several decades ago the process of globalization was started and today we all live in the

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globalized world, with no boundaries for trade, with increase in the intensity of competition, with free capital transfers and with 'time' becoming a key aspect of value [9]. Even though there were other periods in which we observed similar patterns, the pace and the extent of the current phase of globalization is without precedent [9]. The main characteristic of the recent phase of globalization is that FDI and capital flows have grown more rapidly than trade flows, implying that changes in the economic systems will be much wider and that these systems will have greater level of interdependence.

Globalization created a greater level of interconnectivity between businesses and economies of individual countries. Furthermore, in last two decades technological advances have led to a greater integration of all players in the global market allowing them greater availability of information and their faster transfer all over the globe. The global economic crisis, we have all witnessed, has proven that we can no longer talk about national economies due to the huge level of interdependence of individual markets and players on them. *Ramlee et al.* highlight that information and communication technology had a huge impact on the speeding up of the process of globalization but that it also led to the emergence of knowledge economy [15]. With an advent of globalization, knowledge became an international good and a key factor for long-term sustainable development [17]. According to *Sheehan* fundamental transformation of the global economy is connected to the knowledge economy [17]. *Brinkley* states that development of the knowledge economy led to a number of changes – greater level in flow of ideas, technology transfer, increase in the level of innovative activity, specialization and need for highly skilled workforce – which created even closer global linkages [2].

The knowledge economy has emerged from increase in knowledge intensity of economic activities and increase in the globalization of economic affairs [9]. Decades ago, economic development was primarily based on the exploitation of natural resources and physical labor in the agriculture. With the industrial revolution, financial capital became the most important resource. Over time, physical labor and financial resources gradually started to lose importance, while on the other hand the intangible

factors such as information, knowledge and skills gain in their importance. Through the process of globalization developed countries have shifted their economies from orientation on physical resources because of their scarceness and limits of their use. *Florida* and *Kenney* stated that capitalism is undergoing a huge transformation from mass production based on human labour towards productivity and economic growth based on knowledge [6]. *Sirbu et al* build on their conclusion and further state that growth in economic importance of information, technology and human capital has determined “the switch from resource-based economy to one that is predominantly knowledge based” [19]. *Sigismund* explained that this shift was a logical step since knowledge is the only resource which cannot be spent and can be easily duplicated and upgraded with almost no cost [18]. Therefore, knowledge and innovation as intangible assets became major tools for long term development of businesses and countries [3], [6], [9], [23].

Some define the knowledge economy as production of goods and services based on knowledge-intensive activities that contribute to an accelerated pace of technological and scientific advance as well as equally rapid obsolescence [9]. Characteristics which differentiate knowledge economy from previous types of economies include a greater reliance on intellectual capabilities than on physical inputs or natural resources, combined with efforts to integrate improvements at every stage of the production process, from the R&D laboratory to the factory floor and the interface with customers [14]. On the other hand, *Sirbu et al.* recognized that in knowledge-based economy economic activities are based on intangible resources, that there is no need for large quantities of physical resources, that knowledge is key for survival of businesses, that there is continuous growth of services share within the economy as well as increase in a number of small enterprises [19].

In 1962 *Fritz Machlup* presented interpretation of the knowledge economy that emphasizes the significance of production, distribution and use of knowledge for economic growth [11]. At that point in time, for many, this was unthinkable. Increase in the level of competition in global markets requires from companies to endorse creativity and innovation as an integral part of knowledge that is the only non-scarce resource. Global market competition is



pushing society to reject certain traditional ways of doing business and adopt a creative work environment where employees exchange ideas and knowledge, and contribute to creating a society based on knowledge. *Houhgton* and *Sheehan* outlined that price competitiveness is no longer a key element for success [9]. They explain that innovation and knowledge have become the bearers of competitive advantage [9]. *Papulova* and *Mokros* said that constantly investing in innovations, knowledge and managing skills is the core competitive advantage [13]. *Jhamb* and *Kaushik* agree with these two statements and they further argue that knowledge is a key resource both for companies and states for creation of their competitive advantages [10]. This leads towards high demand for productive, efficient and innovative workers and further results in the increase in importance of knowledge. It has gone a long way for knowledge as being one of the most important factors of production according to *Drucker* to become a primary competitive factor of businesses as *Velmurugan* stated [4], [22].

Throughout time knowledge became a determinant of standard of living, it became hallmark of technology transfer and a prerequisite for the long-term sustainable growth. *Sirbu et al.* wrote that sustainable development encourages society to introduce new activities and more efficiently manage resources and improve the quality of life [19]. In the long term this approach leads towards creation of a stronger economy. Today's global society is based on knowledge, and one of the main challenges society is facing today is how to define, measure and improve the process of knowledge management. In order to fulfill the concept of sustainable development with a balanced social development, it is necessary to introduce new values based on knowledge, skills and creativity. Today's society is driven by knowledge, today's workforce based on active contribution of every individual, has successfully replaced a passive army of unmotivated and unconcerned workers and knowledge management became a basic framework of modern businesses.

Nowadays, disparities in the productivity and growth of different countries have far less to do with scarceness of their resources and have much more to do with the quality of human capital and investments in it

[3]. Knowledge economy is a primary factor determining the standard of living, especially in developing countries, where knowledge is necessity for development unlike in developed countries [23]. But *Sheehan* points out that the fruits of development after Industrial Revolution went into hands of economies which could apply and expand the knowledge [17]. The main concern of developing countries is that they have not stabilized their economies internally and that therefore they will not be able to exploit and benefit from the creation of knowledge economies throughout world [15]. For those reasons there is a legitimate fear among developing countries that the current trend of the development of knowledge economies across the globe will strengthen even more the position of developed countries. On the other hand, *Uppenberg* states that both developed and developing countries can benefit from cross border knowledge spillovers [21]. He argues that developing countries can benefit more and therefore achieve higher growth from the adoption of the best practice and knowledge due to the fact that advanced economies are more dependent on R&D and knowledge creation [21]. Furthermore, *Michailova* and *Sidorova* explain that transition countries are mainly suffering from scarce resources and that therefore it would be reasonable for them to put strong emphasizes on knowledge [12]. Knowledge as a long-term asset is great chance for these countries to achieve sustainable growth and complete advantage.

Globalization and knowledge economy bring many challenges, especially for developing countries. With an aim to sustain in a modern and globalized world, countries must recognize the advantages of the knowledge economy and try to exploit them. Human capital could be core for this aim, so *Ramlee et al.* argue that knowledge economy, together with globalization, put strong human capital to the forefront and make it critical for future development of countries [15]. Development of the human capital is one of the most important elements of a learning society in knowledge economies. *Jhamb* and *Kaushik* define "knowledge worker", focused on learning, as a product of knowledge economy [10]. Creation of the knowledge worker begins in the educational system of each country. Importance of the education was recognized by *Schultz* who explained that education is an investment in human capital which

will result in economic progress and development [16]. *Houghton* and *Sheehan* recommendation for education go in line with the previous conclusion and they outline the need to focus on the development of human capital [17]. This development of human capital implies: comprehensive formal education, life-long learning and implementation of market feedback on labor supply and demand [17]. In his book “Knowledge as a global public good” *Stiglitz* states that education has the highest importance for the development of knowledge economy in developing countries since education determines the speed of the development and level to which these countries can help themselves to access the positive influence of knowledge [20]. *Azman* and *Ahmed* go further and state that education is the main prerequisite for sustainable economic growth and development [1]. The future workers, which come out as graduate students, have to possess applicable knowledge, skills, they have to have specialized expertise and be productive and innovative [15].

*Jhamb* and *Kaushik* state that one of the biggest challenges of Indian economy is how to guide and motivate young manpower [10]. This same challenge applies to all transition countries and respectively to Serbia. Unemployment rates are high worldwide, but youth unemployment in the Balkans is almost four times the EU average. In most countries the education system is considered the main culprit of unemployment. According to official statistics in 2011, Statistical Office of the Republic of Serbia, 48.8% of young people (up to 25 years) in Serbia is unemployed. *Sheehan* thinks that many governments see monetary stability as their own success and they neglect the fact that they will not be able to generate further growth without sound educational system and knowledge workers [17].

We have conducted a study to determine two important issues: (1) to assess if students in higher learning institutions in Serbia understand concepts of globalization and knowledge economy and to find out what skills they consider necessary for a successful career in the knowledge economy; and (2) to determine how students value their educational experience in terms of the degree to which it prepares them to meet needs of the knowledge economy and the globalized world.

## Methodology

We used a survey research to conduct the study. Survey research is designed to examine characteristics of a sample or population on prescribed variables and is dependent on instrumentation for observation and measurement. In our study, the population consisted of undergraduate and graduate students since we believe that young people today are the most dynamic social group and bearers of all relevant changes in the society. Further, students can be viewed as the most meaningful subgroup within the group of young people [5]. In fact, they represent a knowledge-intensive community in which a large proportion of members is involved in the production and reproduction of knowledge. When they penetrate conventional organizations, they can become agents of change for their industry and for the economy as whole [3].

Our sample included students from five different faculties in Serbia. Three faculties belong to University of Belgrade, one to University Singidunum and the last one to University of Kragujevac. University of Belgrade and University Singidunum are located in Serbia’s capital, Belgrade, while the third University is located in Kragujevac. The sample was random and it included 324 students: 19 students from School of Medicine (University of Kragujevac); 255 economics students attending Faculty of Economics, Finance and Administration (University Singidunum) and School of Economics (University of Belgrade); 18 students from School of Dental Medicine (University of Kragujevac); 31 students from the Faculty of Political Sciences (University of Belgrade) and 1 student from School of Electrical Engineering (University of Belgrade).

The majority of the surveyed students (286 students — 88% of the sample) are undergraduate students while the remaining students are graduate (master) students (38 students — 12% of the sample).

When constructing a survey questionnaire, we used different studies, articles and literature relating to globalization and knowledge economy. In particular, when selecting relevant questions we used as a model a survey developed by *Ramlee et al.* and then we adjusted it to fit more the Serbian reality and our research needs [15].

The survey had three parts. After a short purpose statement with directions, the first part of the survey aimed at collecting relevant demographic data (gender, school which the student is attending and foreign language competency).

The second part of the survey attempted to assess if students understand what globalization and knowledge economy are. Further, this part of the survey tried to determine what kind of knowledge and skills students deemed relevant (or irrelevant) for a successful career in the globalized world and knowledge economy. The research questions in this part included:

1. Does globalization bring more job opportunities?
2. What is important for the process of creation of knowledge economy?
3. Which attributes (in terms of knowledge and skills) are important for building a successful career in a knowledge economy?

The last part of the research tried to determine a respondent's assessment of his/her educational readiness for challenges of knowledge economy. We also tried to determine respondents' perception related to importance of knowledge in Serbia today. In that vein, questions tried to establish if a respondent thinks that Serbian employers value academic knowledge and skills that students gained through formal education. Finally we asked students to suggest ways for universities to improve educational preparation of Serbian students for globalization and knowledge economy. Thus, the third part of the survey included the following questions:

1. Do respondents think that the knowledge they gained at the university has prepared them for future work challenges?
2. Do employers in Serbia value knowledge and can good education secure a job after the graduation?
3. How should we change the Serbian undergraduate and graduate education systems so that the students gain the necessary knowledge during their studies as to be able to find successful employment in the globalized knowledge-based economy?

The last question was open-ended.

## Results

The first part of the study gave an overview of characteristics of the sample (gender, academic information and language competency). The respondents were 44.75% male and 55.25% female. The majority of students are studying Economics (78.7%), the rest are from Faculty of Political Sciences (9.57%), then from School of Medicine (5.86%), School of Dental Medicine (5.55%) and from School of Electrical Engineering (0.31%).

The participants were also asked about their knowledge of other languages besides their mother tongue. Most of the students assessed their knowledge of English language as excellent (45.65%) or good (32.92%). Only few of them think that their knowledge of English language is poor (3.1%). Other most common languages that the participants speak are Spanish (50%), German (48%), French (46%), Russian (41,6%) and Italian (34%). However, their competencies in these languages vary significantly. In fact, most of the participants assessed their knowledge of foreign languages other than English as average or poor. Very few of the respondents have written that they speak some other languages besides those mentioned above. Those other languages are: Hungarian, Ukrainian, Arabic, Greek, Dutch and Japanese. Thus we can conclude that most of Serbian students are fluent in English and that in addition they have basic knowledge of at least one more foreign language. Table 1 presents gender, academic information and foreign language competency of the respondents.

The second part of the study was focused on globalization, knowledge economy and skills necessary to succeed in the knowledge economy. One of key aspects of globalization is that competition is becoming increasingly global. The ability to compete head-to-head in all major markets is today essential for success [9]. Thus, we wanted to determine if respondents believe that globalization brings to them more job opportunities. Majority of the respondents believe that globalization brings more opportunities and they make 80.12% of the sample. The other 19.88% think that globalization is in fact decreasing their future job opportunities since it increases competition.

If we accept that today's society is driven by knowledge and that knowledge is the key determinant of comparative advantage of each individual, firm and/or country, then we need to determine which factors and processes contribute to development of the knowledge economy. We all witness to the acceleration of speed at which knowledge is created and accumulated today and to an unprecedented speed at which it depreciates in terms of its economic relevance and value [3]. Thus, respondents were asked to identify processes that are the most important for creation of the knowledge economy in Serbia.

The respondents were given seven factors and processes which, according to the literature, contribute

most to development of the knowledge economy. The respondents were then asked to rate these factors and processes according to their importance for creation of the knowledge economy. The factors and processes had to be listed from the most important one (should have been listed as 1<sup>st</sup>) to the least important one (which should have been listed as 7<sup>th</sup>). Here is how respondents listed factors/processes in terms of their importance for creation of knowledge economy (the first one being the most important one):

1. Investment in human capital
2. Innovations and creativity
3. Transfer of knowledge

**Table 1: Demographic, language and academic structure of the respondents**

	Items	Frequency (n=324)	Percentage (%)
Gender	Male	154	44.75
	Female	179	55.25
Faculty	Economics	255	78.7
	Medicine	19	5.86
	Political Sciences	31	9.57
	Dentistry	18	5.55
	Engineering	1	0.31
Level	Undergraduate	286	88.27
	Master	38	11.72
<b>Language Proficiency</b>			
English	Excellent	147	45.65
	Good	106	32.91
	Average	59	18.32
	Poor	10	3.1
French	Excellent	12	8.05
	Good	20	13.42
	Average	53	35.57
	Poor	64	42.95
German	Excellent	9	5.77
	Good	24	15.85
	Average	50	32.05
	Poor	73	46.78
Spanish	Excellent	13	7.97
	Good	26	15.95
	Average	66	40.49
	Poor	58	35.58
Italian	Excellent	9	5.76
	Good	24	15.38
	Average	50	32.05
	Poor	73	46.79
Russian	Excellent	11	8.15
	Good	16	11.85
	Average	33	24.44
	Poor	75	55.55

4. IT
5. Economic growth
6. Globalization
7. Sustainable development

Many authors would agree that intangible capital, as the key comparative advantage, largely depends on investments geared to production and dissemination of knowledge (education, R&D) and investments geared to sustaining the physical state of human capital (health) [3]. Both types of investments can be categorized as investments in human capital. Innovation coupled with systematic and wise acceptance of best practices is becoming critically important. We can also agree that new technologies allow for diffusion of information and almost instant transfer of knowledge. On the other hand, it came as a surprise that the respondents rated “sustainable development” as the least important one. In our opinion, the key reason for a paradigm shift from a physical resource-based to a knowledge-based economy is the fact that the former was not sustainable in medium-run due to depletion of physical resources.

The last question in the second part of the survey aimed at determining which attributes respondents deem important for building a successful career in the knowledge based economy. Respondents were given 13 different attributes that are important for building a successful career and then were asked to mark the ones that matter to them and that in their opinion affect their future career. Table 2 presents all the attributes ranked by importance from the most to the least important ones.

As shown, most respondents agree that foreign

language competency, academic knowledge and ability to implement academic knowledge into practice are key attributes of knowledge workers. These results are rather different from results shown in a similar study in Malaysia where students stated that three most important attributes of knowledge workers are IT literacy, understanding current trends and certain personal attributes like being hard-working, disciplined and trained [15].

Finally, the third part of the study tried to determine respondents’ assessment of their educational readiness for challenges of knowledge economy and respondents’ perception of importance of knowledge in Serbia today. According to our survey, majority of students think that their educational experience at Serbian high educational institutions has prepared them to some extent for their future careers (77.47% of the surveyed students). Only 12.96% believe that undergraduate and graduate studies in Serbia prepared them for challenges that they will face in their future job. We can say that similar to the students in the Malaysian study [15], the Serbian students do not feel confident that they are able to face globalization and the knowledge economy.

The majority of the respondents also think that knowledge is not valued enough by Serbian employers. They claim that good education is necessary but not sufficient to secure a job after graduation. When prompted to justify their answers, the respondents offered different explanations. The answers gravitated towards explanation that today in Serbia, due to corruption, political and other connections are the most important factor for a successful job search.

**Table 2: Ranking of attributes which contribute to successful career in knowledge-based economy**

Rank	Attributes	No. of marks
1	Foreign language competency	160
2	Ability to implement gained knowledge into practice	154
3	Academic knowledge	132
4	Creativity and innovation	125
5	Communication skills	116
6	Discipline and dedication to work	102
7	Team work	94
8	Understanding current economic trends	88
9	IT literacy	88
10	Determination	87
11	Ability to adapt to changes	72
12	Willingness to risk	63
13	Independence	21



At the very end of the survey, we asked students about ways in which universities could better fulfill their role and prepare them for the new economy. We wanted to know how Serbia should change its high education system to allow students to gain the necessary knowledge and skills during their studies so that they are able to find successful employment in a globalized knowledge based economy. The interviewees were given a wide range of suggested solutions for improvement of the education system, and they were asked to mark the ones that they think are the most important. They could also write an additional suggestion since the question was open-ended. Here are the results:

Table 3 shows that Serbian students believe that the most important factors which can improve the current state of the Serbian education system are: a greater emphasis on practical knowledge (79.13% respondents who answered the question), a greater support from the state in terms of investments in education (49.61%), reducing level of corruption and bribery in the society (42.91%) and establishing international cooperation with foreign universities (40.55%). Students also believe that working in smaller groups and foreign language competency can substantially improve their educational experience.

## Conclusion

In today's globalized world, with no boundaries for trade, with increase in the intensity of competition and with free capital transfers, the source of each country's comparative advantage is knowledge. Knowledge is the key factor for

long-term sustainable development. Over time, developed countries have shifted their economies from orientation on physical resources which are scarce and limited to intangible factors such as information, knowledge and skills which cannot be spent and which can be easily duplicated and upgraded with almost no cost. Innovation and knowledge have become the bearers of competitive advantage not only for countries, but also for individuals and firms. This leads towards high demand for productive, efficient and innovative workers.

There is a real danger that developing countries may not be able to exploit and benefit from the creation of knowledge economies due to their internal economic and social imbalances. On the other hand, developing countries have scarce resources and thus, knowledge economy represents an opportunity for them to catch up more quickly and more smoothly. In particular, they can benefit from the adoption of the best practice and knowledge created and tested in developed countries which makes developing countries less dependent on R&D.

Development of the human capital is one of the most important elements of a learning society in knowledge economies. This development of human capital implies: comprehensive formal education, life-long learning and implementation of market feedback on labor supply and demand [9]. *Stiglitz* states that education has the highest importance for the development of knowledge economy in developing countries since education determines the speed of the development and level to which these countries can help themselves to access the positive influence of knowledge [20].

**Table 3: How should we change the Serbian education system?**

Items	Frequency (n=254)	Percentage (%)
More investment in education	126	49.61%
Greater emphasis on practical knowledge	201	79.13%
Raising awareness on the significance and value of knowledge	66	25.98%
Greater emphasis on foreign languages	93	36.61%
Better equipment at the University	58	22.83%
Enabling work on scientific research projects	89	35.04%
Working in small groups	99	38.98%
Establishing international cooperation with foreign universities	103	40.55%
Using foreign and up-to-date literature	78	30.71%
Involving employers in the education process	81	31.89%
Reducing the level of corruption and bribery	109	42.91%
Else	7	2.76%

Young people are bearers of all relevant changes in the society. They should be in focus of each country's economic policy since supporting them means securing long-term effects on manpower. At the same time, unemployment rates are high worldwide. One study which examined the impact of the recession on Britain's knowledge economy has shown that recessions (including the last one which started in 2008) are especially harsh times for young people [2]. However, although new graduates can do less well during the recession, the young without higher level qualifications do much worse. The study has shown that employment of knowledge workers went up and employment for some non-knowledge workers went down in 2008 in Britain. The biggest fall was among unskilled and administrative workers, while the biggest job gains were in personal services and in managerial services [2].

Youth unemployment in the Balkans is almost four times the EU average. In particular, Serbia had difficult periods in its recent past which affected the country's economy and its competitiveness. Knowledge Economy Index is a derivative of World Bank's Knowledge Assessment Model (KAM) which is calculated for 146 countries on the average score of all four pillars related to the knowledge economy – Economic incentive and institutional regime, Education, Innovation and Information and Communication Technology. Serbia holds 49th position in Knowledge Economy Index for 2012 with score of 6.02. Comparing to 144th position from 2000 KAM report, that is an advancement of 95 positions. However, there is no reason to be satisfied. Due to its political and economic setbacks in the 1990s, Serbia is below South-East Europe region average of 6.60 left behind by eight countries of the region and better only than Macedonia, Albania and Bosnia and Herzegovina.

The best way for Serbia to speed up its development is to focus on its young manpower by substantially improving its educational system. Our survey provides the following suggestions:

1. Serbia should rethink its educational strategy and try to take into account the labor market demand for knowledge workers. Then, it should allocate more meaningful resources to develop capacity of

its educational institutions. For example, its universities should possess all relevant and modern IT equipment; resources should be allocated to support international or regional research projects which could facilitate exchange and transfer of knowledge; each Serbian university should have an access to the latest foreign scientific literature; etc. Finally, the most important goal should be to fight corruption as to minimize negative selection and labor market distortions.

2. Serbian educational institutions should modernize their programs. In the today's world generic learning abilities (learning how to learn, knowing what we do not know, etc.) are becoming more important than mastering a specific repertoire of technical skills [3]. Developing these skills allows us to understand a broader picture, to become familiar with new trends and to anticipate new requirements that we will face. Some additional skills also allow both students and professors to be tuned in an intensive life-long learning process. Foreign language competency, IT literacy, good communication skills and ability to work in teams foster our capacity to keep up with continuous changes and to exchange our experience internationally in an efficient way.
3. Finally, a stronger link should be created between educational institutions and employers. Universities should try to develop different types of cooperation with private sector which can make their study programs more practical and relevant for students' future employment.

With implementation of suggestions and recommendations from this paper Serbia would make significant steps towards creation of knowledge economy. Any further research regarding implications and conclusions of this paper would provide additional support for the necessary shift which needs to happen in educational system of Serbia.

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## WOULD ECONOMIC RECOVERY IMPLY FISCAL STABILIZATION IN SERBIA?<sup>1</sup>

### Da li bi privredni oporavak u Srbiji doveo do fiskalne stabilizacije?

#### Abstract

For many years Serbia has been running fiscal deficit, which has considerably increased since 2008, leading to rise in public debt from 29.2% of GDP in 2008 to 60.3% of GDP in the end of 2012. This paper is aimed at resolving the dilemma if the economic recovery would be sufficient to reduce large fiscal deficit in Serbia or additional fiscal consolidation measures have to be implemented. Since the actual fiscal deficit is the result of macroeconomic trends and policies, in order to answer this question it is necessary to exclude the effects of cyclical trends in macroeconomic aggregates on fiscal deficit. Although new EU fiscal rules impose limit to cyclically-adjusted deficit (at 0.5% of GDP), in the countries facing high foreign trade imbalance not only cyclical trends in output, but also the impact of absorption gap has to be accounted. In this paper we provide econometric estimate of the size and the dynamics of structural fiscal deficit (cyclically and absorption adjusted deficit) in Serbia, in the period 2001-2012, based on quarterly macroeconomic data. The results suggest that most of the fiscal deficit in Serbia is structural in its nature. After the initial consolidation in 2002 and 2003, structural fiscal deficit in Serbia was relatively low (below 2% of GDP) in the period 2004-2006, and rose sharply starting from 2007, so to achieve 6% of GDP in 2012. We also quantify the impact of particular tax/expenditure measures which contributed to creation of structural fiscal deficit in Serbia. Based on the results, economic recovery will not lead to substantial decline in fiscal deficit in Serbia, which is why it will be necessary to perform fiscal consolidation through significant cut in public expenditures and slight increase in taxes.

**Key words:** *structural fiscal deficit, fiscal responsibility rules, sustainability of public finance, economic growth*

#### Sažetak

Godinama se u Srbiji vodi politika fiskalnog deficita, koji je znatno povećan od 2008. godine, dovodeći do rasta javnog duga sa 29,2% BDP-a u 2008. godini na 60,3% BDP u 2012. godini. Cilj ovog rada je da pruži odgovor na pitanje da li bi oporavak privredne aktivnosti bio dovoljan za smanjenje visokog fiskalnog deficita u Srbiji, ili je potrebno primeniti dodatne mere fiskalne konsolidacije. Pošto je fiskalni deficit posledica makroekonomskih kretanja i politika, odgovor na prethodno pitanje je moguće dati tek nakon što se izoluju efekti cikličnih kretanja makroekonomskih varijabli na visinu fiskalnog deficita. Iako nova fiskalna pravila u EU uvode limit u pogledu ciklično prilagođenog deficita (na nivou od 0,5% BDP), u zemljama koje imaju visoku spoljnotrgovinsku neravnotežu, pored visine proizvodnog jaza, u obzir je neophodno uzeti i apsorpcioni jaz. U ovom radu izvršena je ekonometrijska ocena visine i dinamike strukturnog fiskalnog deficita (ciklično i apsorpciono prilagođenog deficita) u Srbiji u periodu od 2002. do 2012. godine, na osnovu kvartalnih makroekonomskih podataka. Rezultati pokazuju da je najveći deo fiskalnog deficita u Srbiji strukturne prirode. Nakon inicijalne konsolidacije u 2002. i 2003. godini, strukturni fiskalni deficit je bio relativno nizak (ispod 2% BDP) u periodu 2004-2006. godine, nakon čega je snažno porastao počev od 2007. godine, tako da je u 2012. godine dostigao 6% BDP. U radu su takođe kvantifikovani uticaji pojedinačnih mera na strani javnih prihoda i javnih rashoda, koje su doprinele nastanku strukturnog fiskalnog deficita u Srbiji. Na osnovu dobijenih rezultata zaključuje se da rast privredne aktivnosti neće dovesti do značajnijeg smanjenja fiskalnog deficita u Srbiji, te da je za njegovo značajnije smanjenje neophodno sprovesti mere fiskalne konsolidacije, kroz smanjenje javnih rashoda i povećanje poreza.

**Cljučne reči:** *strukturni fiskalni deficit, pravila o fiskalnoj odgovornosti, održivost javnih finansija, privredni rast*

JEL Classification: E62, H60, H62, H63

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## Introduction

Under the new EU fiscal rules, structural fiscal deficit ceiling and mandatory procedures in case of exceeding the Maastricht limits on public debt are introduced in order to provide fiscal stabilization and sustainability [7]. The structural fiscal deficit is obtained when the impact of cyclical fluctuations of GDP and absorption, as well as the effects of one-off and temporary factors that impact on government revenues and expenditures, is excluded from the real fiscal deficit. Therefore, the structural fiscal balance can be interpreted as a systemic fiscal balance, reflecting discrepancy between public revenues and expenditures, due to relatively enduring feature of the tax system and public expenditure policies. Precisely, structural fiscal deficit corresponds to fiscal deficit that would be achieved if all the macroeconomic variables which affect the public revenues (GDP, employment, absorption, etc.), and expenditures (unemployment) were in equilibrium level. In addition to measures of discretionary economic policy, structural fiscal balance reflects the impact of long-term macroeconomic and social trends on revenues and expenditures, such as change in economic growth model – from domestic demand led growth to export and investment led growth, or aging population and the like.

Conceptually, the structural fiscal balance is a superior base for estimating a country's fiscal position and conducting fiscal policy, compared to the actual fiscal balance. A good illustration of this is apparently good, but in the long run unsustainable fiscal position of European countries in transition during absorption and expansion boom that preceded the current crisis [10], [11]. High economic growth and high external deficits have generated temporarily high public revenues that most governments interpreted as a permanent, resulting in the adopted legislation that permanently increased public spending. Despite that, the actual fiscal deficit in most countries in the period 2006-2008 was relatively low, suggesting pursuing expansionary fiscal policies. However, the structural fiscal deficit in these countries was already very high suggesting the need for tighten fiscal policy – in this period, countries are supposed to generate surpluses and accumulated reserves for “hard times”.

However, estimation of the fiscal position of the country and running the fiscal policy based on the structural fiscal balance are faced with some methodological difficulties, which may represent a fertile ground for political manipulation. The structural fiscal balance is the size that is not directly measured, but it is estimated by using different econometric methods, which may produce different results based on the same data in specific period of time. The problem can be partially solved through prescribing mandatory methods for estimation of the structural fiscal deficit at the EU level. However, as these methods are getting more statistically complex, they leave more room for different choices during the estimation procedure, leading to different estimations, although the same data and the same method are used. An additional problem with the estimation of the structural fiscal balance is that its results for a specific period change with the addition of new observations. Basically, the problem is that the structural fiscal balance in a specific period of time depends not only on the past but also on future observations. In “normal” times future observations can be relatively precisely forecasted by using specific econometric methods, but that is not the case when the economy moves from expansion to recession or vice versa. Additional difficulties arise in transition countries, especially in Serbia, where there are no basic data for the application of some methods for estimation of structural fiscal deficit (data on capital, the final use of GDP on a quarterly basis, etc.). In such cases, it is necessary to use certain approximations to estimate the missing data, creating an extra space for arbitrariness.

Fiscal policy in Serbia in recent years was led on the base of the actual fiscal deficit, so that in years of strong economic expansion and growth of absorption there was a systematic increase in public expenditure and reduction of certain taxes [1], which at the beginning of the crisis in late 2008 led to a strong and lasting growth of fiscal deficits and rapid growth of public debt. In the past few years, Serbia consistently runs relatively high fiscal deficit, of over 4% of GDP per year, which led to a rapid and substantial growth of public debt to a level of over 60% of GDP at end 2012, threatening to undermine the sustainability of public finances. The data for other developing countries that have faced the public debt crisis show that in most



of them the problem occurred at the level of public debt below 50% of GDP. To avoid such a scenario in Serbia, it is necessary to reduce the fiscal deficit below 1% of GDP (i.e. by 4-5 pp of GDP) in relatively short period time. In that context, the question is whether the existing fiscal deficit in Serbia is a result of slowing economic activity, which means that it could be eliminated in case of return to moderate growth rates of GDP, or a consequence of systemic imbalances between revenue and expenditure, which will not be eliminated when economic crisis is over. With regards to that, in this study the structural fiscal deficit in Serbia in the period since 2002 to 2012 has been estimated, and its causes and possible solutions are discussed. The results show that most of the fiscal deficit in Serbia (about 4% of GDP) is of a systemic nature, and less than 1% of GDP is for macroeconomic reasons. The results also suggest that the structural deficit is mostly formed in the period since 2006 to 2008. This means that the recovery of economic activities will not *per se* lead to a significant reduction of fiscal deficit, but that for its overthrow it is necessary to apply appropriate measures, such as cuts in public spending and increase in taxes.

## Estimation of the structural fiscal balance: Methodology and data

### Methodology

The movements of fiscal variables are affected by: systemic factors (i.e. the way of designing tax policy and public expenditures policy), long-term macroeconomic and demographic trends, cyclical fluctuations of macroeconomic aggregates and one-off events. The goal of estimation of cyclically-adjusted fiscal balance (CAB) is to disaggregate actual fiscal balance (B) to the part which is the result of cyclical fluctuations of GDP and one-off events (CB) and the part from which the influence of the mentioned factors is excluded (CAB):

$$B = CB + CAB \quad (1)$$

Cyclical balance, as well as consequently cyclically-adjusted fiscal balance, can be estimated by using two methodological approaches: aggregated and disaggregated [3]. The advantage of the disaggregated approach, which will be used in this paper, is that the impacts of cyclical

fluctuations of GDP on the major taxes and expenditure position of the country are separately modelled<sup>2</sup>.

Cyclical component of fiscal balance (CB) depends on the sensitivity of fiscal balance ( $\eta$ ) to output gap ( $y_{gap}$ ):

$$CB = y_{gap} \cdot \eta \quad (2)$$

Output gap or economic cycle is relative deviation of the actual GDP from potential GDP:

$$y_{gap} = (Y_t - Y_t^*) / Y_t^* \quad (3)$$

where  $Y_t$  and  $Y_t^*$  are actual and potential (natural, equilibrium) GDP, respectively.

The coefficient of sensitivity (or semi-elasticity) of the fiscal balance in relation to the output gap is the difference between the coefficient of sensitivity of tax revenues in relation to the output gap ( $\eta_T$ ) and the sensitivity of public expenditure ( $\eta_G$ ) in relation to the output gap:

$$\eta = \eta_T - \eta_G \quad (4)$$

According to the OECD approach, the coefficient of sensitivity of tax revenues in relation to the output gap depends on the elasticity of tax revenues in relation to the output gap ( $\varepsilon_{T,y/y}$ ) and share of tax revenues in GDP ( $T/Y$ ). In the same manner, the coefficient of sensitivity of expenditures in relation to the output gap is calculated as the product of elasticity of current primary public expenditures relative to output gap ( $\varepsilon_{CPG,y/y}$ ) and share of current primary public expenditures in GDP ( $CPG/Y$ ).

Cyclically-adjusted fiscal balance shows how much would be the fiscal balance of the country, if GDP grew at a natural (trend) rate. However, in addition to the dynamics of GDP, the fiscal balance of the country is affected by other variables, such as: *i*) absorption, *ii*) price of energy and natural resources (important for the countries which are large exporters of these resources), *iii*) real estate prices (important for the countries where the share of revenues from property taxes in total tax revenues is high). Therefore, for the evaluation of the countries' fiscal position it is necessary to exclude the effects of deviations of these variables from the natural level. Based on the previous research [11], [10], [1], it is estimated that of all the variables, the Serbian fiscal balance is mostly affected by the state of absorption (balance of the current account

<sup>2</sup> Detailed description of methodology for estimation of cyclically-adjusted and structural fiscal balance is described in [8] and [5]. Alternative approach is presented in [4].

of balance of payment). Therefore, for the evaluation of the structural fiscal balance it is necessary to consider not only production but also the absorption gap, defined as the deviation of actual current account deficit ( $ca_t$ ) from its sustainable (equilibrium) level ( $ca_t^*$ ):

$$ab_t = ca_t - ca_t^* \quad (5)$$

where  $ab_t$ ,  $ca_t$  and  $ca_t^*$  reflect share of respective variables in potential GDP. Precisely, the absorption gap ( $ab_t$ ) is the sum of the output gap and the exterior gap [10].

From the above-mentioned considerations, it follows that the structural fiscal balance is equal to the actual fiscal balance from which the impact of cyclical fluctuations in GDP (output gap –  $ygap_t$ ) and absorption (absorption gap –  $ab_t$ ), as well as the effect of one-off factors, are excluded:<sup>3</sup>

$$caab_t^* = b_t - \beta ygap_t - \gamma ab_t \quad (6)$$

Output gap affects the fiscal deficit through direct taxes, while absorption gap makes impact through indirect taxes. From the previous equation it is concluded that the impact of the production and absorption gap on the height of the structural balance depends on the coefficient of sensitivity of the fiscal balance in relation to the output gap ( $\beta$ ) and the coefficient of sensitivity of the fiscal balance in relation to the absorption gap ( $\gamma$ ). Sensitivity coefficients  $\beta$  and  $\gamma$  can be obtained through econometric estimations. However, in practice they are usually calculated on the basis of participation of direct ( $\beta$ ) and indirect taxes ( $\gamma$ ) in GDP, from which it follows that the  $\eta = \beta + \gamma$ . The reasons for the calculation of sensitivity coefficients based on the share of taxes in GDP is that it is estimated that they better reflect the automatic response of fiscal balance to cyclical fluctuations in the economy, than was the case with econometrically-estimated coefficients. Besides, the econometric evaluations of the previous equation are faced with numerous difficulties (endogeneity problem, the linear dependence of two gaps, etc.). By calculating these parameters instead of estimating them econometrically, double counting problem is avoided [6].

## Data

Assessment of cyclically-adjusted and structural fiscal deficit relates to the period starting from the first quarter of

2001 to the fourth quarter of 2012. The analysis was based on quarterly data, because the number of annual data is insufficient for econometric estimations. Data relating to the period before 2001 are strongly influenced by external shocks (international sanctions, bombing, change of territory over which economic authority is exercised since 1999, etc.), which made it almost impossible to ensure their comparability with more recent data. In addition, after 2001 there was a relatively strong alteration in economic policy and the process of reforms of the economic system begun, leading to the change in the values of parameters which describe the relationships between economic variables. Although this is a relatively short period, only a decade, there is a significant problem of comparability of data in most of the analysed time series, and in some cases, there is also a problem of their reliability. Therefore, in some cases adjustments to the official data were necessary in order to improve their comparability, while in other cases it was not possible (in those cases dummy variables were used in order to isolate the impact of methodological changes).

## Empirical estimation of cyclically-adjusted fiscal balance in Serbia

The procedure of estimation of cyclically-adjusted deficit consists of: *i*) estimation of output gap, *ii*) estimation of the budget elasticities and coefficient of sensitivity of the fiscal balance in relation to the output gap, *iii*) estimation of the cyclically-adjusted fiscal balance.

### Evaluation of the output gap for Serbia

In practice it is often evaluated by means of *Hodrick-Prescott* filter and by *Cobb-Douglas* production function<sup>4</sup>. Since both methods provide similar results [2], we will use HP filter for estimation of output gap in Serbia, which is also a common practice of the European Commission for Central and Eastern European countries. Quarterly data on GDP (from 2001 to 2012) at constant prices from 2005

3 Structural fiscal balance is often referred to as CAAB, which is abbreviation for "Cyclically and Absorption Adjusted Budget Balance".

4 In Serbia there are no data on the capital stock of corporate sector, while the data on the number of employees are not reliable, which is why estimation of production function requires "construction" of the data on capital stock as well corrections to the official data on employment. Therefore, it is questionable if it is justified to make estimation of production function for these purposes. For further details see [2].

are used for estimation of the output gap in Serbia. For the purpose of estimation of output gap by using the HP filter, GDP series is forecasted by the end of 2014, based on the official forecasts of the IMF and the Ministry of Finance, available at the time of estimation.

Output gap in Serbia (see Figure 1) was negative (recession) in 2003 and in the period 2009-2011, while in 2002 and in the period 2004-2006 the economy was in balance. In 2007 and 2008 output was significantly above the potential level (expansion). A large drop in output gap in 2003 is a consequence of the fact that potential growth rate was almost double larger than the real growth rate, due to fall in real GDP growth rate in that period, because of political instability. In 2007 and 2008 strong economic growth was achieved, which was encouraged primarily by domestic demand and large inflows of foreign capital, which is why the output gap was positive, i.e. economy was in a strong expansion. Significant increase in output above the natural level in 2007 (by nearly 3% of potential GDP) and high positive output gap in 2008 clearly signal that the economy was “overheated” (that period was characterized by high inflow of foreign capital, as well as by high credit growth and real wage growth). In other words, strong economic growth recorded in this period was not sustainable in the long term. It is clearly seen from the trade deficit, which stood at around 22% of GDP in 2008, and the current account deficit which amounted to 17.1% of GDP, requiring additional borrowing. After a mild recovery in 2010 and 2011, economic activity declined again in 2012.

### Estimation of budget elasticities in Serbia

The coefficient of sensitivity of the fiscal balance depends on the elasticity of public revenues and expenditures in relation to the output gap, as well as on the amount of cyclically sensitive taxes and expenditures, measured as share of GDP. It is therefore necessary for its calculation to estimate the budget elasticity of the most important taxes (personal income tax, social security contributions, corporate income tax and consumption taxes) and cyclically sensitive categories of public expenditure (benefits for the unemployed).

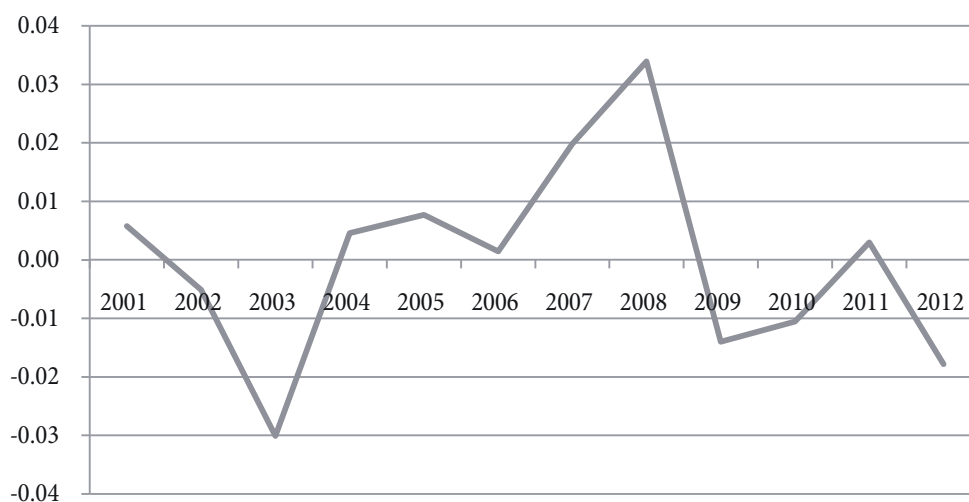
#### 1) *The elasticity of personal income tax to output gap*

Standard OECD procedure implies use of data on earnings for an approximation of personal income, since the income from employment makes over  $\frac{3}{4}$  of the total income of citizens. The elasticity of income tax in relation to the output gap is calculated as a product of elasticity of income tax in relation to the wage bill and the elasticity of the wage bill in relation to the output gap.

Elasticity of income tax in relation to the wage bill is determined as the ratio of the weighted marginal tax rate and weighted average rate of income tax, for the earnings ranging from 50% to 300% of average wage, where the weights refer to the share of wages of a given percentile in the total wage bill [2], [8].

Starting from the percentile distribution of earnings in Serbia in 2009, the estimated elasticity of income tax in relation to the wage bill is as follows:

Figure 1: Output gap for Serbia: HP approach



Source: Authors' calculations

$$\varepsilon_{tw,w} = \frac{\sum_{i=1}^n \gamma_i MA_i}{\sum_{i=1}^n \gamma_i AV_i} = 1.16 \quad (7)$$

The estimated elasticity of income tax in relation to the wage bill in Serbia is relatively low as a result of low progressivity of income tax, since wages, above non-taxable threshold are taxed at the flat rate of 12%. Similar values of estimated elasticities are obtained in other countries where personal income is taxed at flat marginal tax rate (Slovak Republic, Estonia, etc.). Estimated elasticity in Serbia is lower than in developed OECD countries, which mostly apply progressive marginal rates in taxing personal income, where the elasticity is between 1.5 and 2.

Estimation of elasticity of the wage bill, defined as the product of the average wage ( $W_t$ ) and the number of employees ( $L_t$ ), in relation to the output gap ( $ygap_t$ ), is performed by econometric methods.

Since it is determined that the wage bill and output gap series are non-stationary, having one unit root, estimation will be conducted on the respective first differences. In addition, because wage bill series has structural break in the first quarter of 2009, it is necessary to include dummy variable (which will have a value of zero in all quarters, except in the first quarter of 2009, where the value will be one) in the model. In addition, wage bill series has seasonal fluctuations (decrease) in the first quarter of each year, which will be taken into account through inclusion of appropriate seasonal dummy variable (*seas1*).

Estimation of elasticity of wage bill in relation to output gap will be conducted using the following econometric equation:

$$\Delta \log(W_t L_t / Y_t^*) = a_0 + a_1 \Delta \log(Y_t / Y_t^*) + v1q2009 + seas1 \quad (8)$$

Dependent variable	Independent variables			
	constant	$\Delta \log(Y_t / Y_t^*)$	V1q2009	seas1
Estimate	0.035	0.716	-0.156	-0.095
t-statistics	5.266	2.558	-4.174	-7.019
Probability (p)	0.0000	0.0150	0.0002	0.0000
Other statistical properties	R <sup>2</sup> =0.74; F=32.59 (p=0.000); DW=1.99; JB=0.7447(p=0.689)			

The results suggest that the statistical properties of the estimated model are satisfactory. The equation explains around 3/4 of the total variation of the wage bill in the considered period. The whole regression, as well

as all individual explanatory variables, is statistically significant at the significance level of 5% (as indicated by the probability associated with it – calculated F and t statistics). In the model there is no autocorrelation, which is confirmed by examination of correlogram of residuals and the value of the *Durbin-Watson* (DW) statistics. By introducing respective dummy variables the normal distribution of residuals has been achieved.

The estimated elasticity of the wage bill in relation to the output gap is 0.72. This means that the reduction of GDP in relation to potential (trend) level by 1% leads to a decrease in wage bill by 0.72%. In addition, there is a statistically significant decrease in income in the first quarter of each year in the considered period as well as in the first quarter of 2009 – the latter being caused by the economic crisis.

Starting from the estimated elasticity of income tax in relation to the wage bill and the elasticity of wage bill in relation to the output gap, it has been estimated that the elasticity of income tax in relation to the HP output gap amounts to:

$$\varepsilon_{tw,y/y^*} = 1.16 \times 0.72 = 0.84 \quad (9)$$

Therefore, with the decrease of GDP in relation to its potential (trend) level by 1%, *ceteris paribus*, the revenues from personal income tax would decline by 0.84%.

## 2) The elasticity of social security contributions to output gap

The methodological procedure for estimation of elasticity revenue from social security contributions in relation to the output gap is identical to the procedure applied in case of personal income tax.

Starting from the percentile distribution of wages in Serbia, it was found that the elasticity of social security contributions in relation to the wage bill in Serbia equals one. Unit elasticity of contributions in relation to the wage bill is a consequence of the fact that social security contributions in the observed interval (from half to three times average wages) are calculated on the basis of the full amount of income, by applying flat rates, totalling to 35.8%.

The elasticity of the wage bill in relation to the output gap, which was estimated in the previous step, is also used for estimating the overall elasticity of contributions in

relation to the output gap, due to the fact that both income tax and social security contributions are calculated on gross wages. Starting from the estimated elasticity of contributions in relation to the wage bill and the elasticity of the wage bill in relation to the HP output gap, it was estimated that the total elasticity of social contributions to HP output gap equals:

$$\varepsilon_{ssc,y/y^*} = 1 \cdot 0.72 = 0.72 \quad (10)$$

This means that with the reduction of GDP in relation to its potential (trend) level by 1%, the revenues from social security contributions would fall by 0.72%, other things being the same.

### 3) *The elasticity of corporate income tax to output gap*

According to the standard OECD methodology, the estimation of corporate income tax elasticity in relation to the output gap is based on the assumption that the elasticity of corporate income tax in relation to company profit equals one, so the overall corporate income tax elasticity in relation to the output gap is equal to the elasticity of company's profit in relation to the output gap.

The OECD methodology for estimating company's profit elasticity in relation to the output gap is based on the balance identity, according to which added value (GDP) equals the sum of labour income (wage bill) and income from capital (gross operating profit). Based on the aforementioned, the company's profit elasticity in relation to output gap can be calculated on the basis of the share of gross operating profits in GDP (PS) and the elasticity of the wage bill in relation to the output gap ( $\varepsilon_{wt,y/y^*}$ ) [8]. Given that based on previously estimated equations the elasticity of personal income in relation to output gap in Serbia is 0.72, while based on the data for the period 2005-2008 it was found that the share of gross operating profit in GDP amounted to 34.69% (PS = 0.3469), the calculated elasticity of profit compared to the HP output gap is:

$$\varepsilon_{pr,y/y^*} = \frac{1-(1-PS)\varepsilon_{wt,y/y^*}}{PS} = 1.52 \quad (11)$$

Due to the assumption of unit elasticity of corporate income tax in relation to the tax base, the estimated elasticity of corporate income tax in relation to output gap amounts to 1.52. This means that, other things being equal, if GDP

relative to its potential (trend) level falls by 1%, corporate income tax revenues would fall by 1.52%.

### 4) *The elasticity of consumption taxes to output gap*

According to the OECD methodology it is assumed that the overall elasticity of the consumption taxes in relation to the output gap equals 1. However, the actual value of the coefficient of elasticity could be different from 1, due to several factors such as changes in structure of consumption, which is taxed at different rates of VAT, the existence of the absorption gap, etc. Therefore, it is considered justified to perform econometric estimation of elasticity of the consumption taxes in relation to the output gap. Strict adherence to the logic based on the OECD methodology would require performing estimations of elasticity in two steps: estimation of elasticity of consumption taxes in relation to personal consumption and estimation of elasticity of consumption to output gap. However, since there are no sufficiently long and reliable series of data on personal consumption in Serbia, the elasticity of consumption taxes ( $T_c$ ) in relation to the output gap will be estimated directly.

The ADF unit root test has showed that the series of  $\log(T_c/Y_t^*)$  is non-stationary, while according to the KPSS test it is stationary. Since in the given series there is a structural break in 2006, it is reasonable to conclude that this series has unit root. For the series of HP output gap,  $\log(Y_t/Y_t^*)$ , it is previously found that they have one unit root. Accordingly, estimation of elasticity will be performed by using the first differences of the given series. In addition, graphical inspection of consumption taxes series shows that there was a structural break in the second quarter of 2006, and that this series also has expressed seasonality in terms of a significant drop in the first quarter of each year it is necessary to include the respective dummy variables in the model – for the structural break ( $v2q2006$ ), and the corresponding seasonal artificial variable ( $seas1$ ). Estimation of consumption tax elasticity with respect to the output gap is based on the sample from the second quarter of 2002, to the second quarter of 2011, using the following model:

$$\Delta \log(T_c/Y^*) = a_0 + a_1 \Delta \log(Y/Y^*) + a_2 seas1 + a_3 v2q2006 \quad (12)$$



Starting from the estimated values of output gap, we had the following results:

Dependent variable	Independent variables			
	constant	$\Delta \log(Y_t/Y_t^*)$	seas1	V2q2006
Estimate	0.0619	1.0445	-0.2631	0.1574
t-statistics	5.5286	2.2160	-11.7195	2.6520
Probability (p)	0.0000	0.0337	0.0000	0.0122
Other statistical properties	R <sup>2</sup> =0.82; F=51.5457 (p=0.000); DW=2.47; JB=1.7018 (p=0.427)			

Evaluated models have satisfactory statistical properties, since all explanatory variables individually or all together are statistically significant, and the model explained 82% of variations in revenues from consumption taxes, while there is no autocorrelation present, as evidenced by the value *Durbin-Watson* statistics. Also, the introduction of dummy variables provided the normal distribution of residuals.

Estimated coefficient of elasticity of the consumption tax in relation to the HP output gap was 1.05. The estimated coefficient is statistically significant (at the significance level of 5%). This means that with the reduction of GDP in relation to potential (trend) level by 1%, there is a fall in revenue from taxes on consumption to 1.05%, other things being equal. The obtained coefficients of elasticity are consistent with the results of empirical analyses in other countries, and with assumption of the OECD methodology, according to which the elasticity is around one. The results also confirm that in the first quarter of every year there is a statistically significant decrease in the consumption taxes revenues, and that there was statistically significant one-off increase in revenues from taxes on consumption recorded in second quarter of 2006 (as estimated coefficients are statistically significant at 1% and 5% respectively).

##### 5) The elasticity of expenditures for unemployed to output gap

According to the OECD methodology, only unemployment benefits expenditures are regarded as automatically related to cyclical fluctuations in output, while all other public expenditures are seen as the consequence of discretionary measures. Under this methodology, the elasticity of expenditures for unemployed in relation to the output gap is the product of the elasticity of expenditure for unemployed in relation to the number of unemployed

and the elasticity unemployment gap to the output gap. According to the same methodology and practice for OECD countries it is assumed that the elasticity of expenditure for the unemployed in relation to the number of unemployed equals one, which implicitly means that the scope of rights per user of unemployment benefits does not change during the economic cycle, but only the number of unemployed persons fluctuates. Accordingly, the total elasticity of expenditures on unemployed in relation to the output gap is equal to the elasticity of unemployment gap ( $\log(U_t/U_t^*)$ ) in relation to the output gap ( $\log(Y_t/Y_t^*)$ ).

Pursuant to the mentioned, estimation of elasticity of unemployment gap in relation to output gap was carried out, using the following model:

$$\log(U_t/U_t^*) = a_0 + a_1 \log(Y/Y^*) + a_2 v3q2004 + a_3 v1q2005 + a_4 v1q2007 + a_5 v0810 \quad (13)$$

Dependent variable	Independent variables					
	constant	$\log(Y_t/Y_t^*)$	v3q2004	v1q2005	v1q2007	v0810
Estimate	0.0333	-1.4721	-0.1014	-0.0802	0.0609	-0.0871
t-statistics	5.2821	-6.3703	-3.6296	-2.8279	2.1751	-6.8153
Probability (p)	0.0000	0.0000	0.0013	0.0093	0.0397	0.0000
Other statistical properties	R <sup>2</sup> =0.76; F=15.3145 (p=0.000); DW=1.86; JB=0.056 (p=0.972)					

Estimated equation explained about 76% of the total deviations in unemployment from its long-term trend. The whole regression, as well as relevant individual explanatory variables, is statistically significant (as indicated by the probability associated with t and F statistics). In the model there is no residual autocorrelation. Normal distribution of residuals is not reached despite the introduction of dummy variables, which correspond to changes in conditions to get the status of unemployed person.

Estimations show that the elasticity of unemployment gap in relation to the HP output gap is -1.47, which means that with reduction of GDP in relation to the potential (trend) level by 1%, *ceteris paribus*, there is a rise in unemployment by 1.47%, in relation to its potential level.

##### Estimation of coefficient of sensitivity of the fiscal balance to output gap in Serbia

Sensitivity of fiscal balance in relation to the output gap depends on the elasticity of total tax revenues and current primary public expenditures in relation to the output gap and the relative size of the mentioned variables in relation to GDP.

The total elasticity of tax revenue in relation to the output gap is equal to the weighted average elasticity of individual taxes, with the weights (the share of individual forms of taxes in total tax revenues –  $T_i/T$ ) calculated on the basis of data for the period from 2006 to 2010. Starting from the estimated values of budget elasticities, the total elasticity of tax revenue compared to the HP output gap is 0.92.

The total elasticity of current primary expenditure in relation to the output gap is equal to the product elasticity of unemployment gap in relation to the output gap and the share of expenditure on unemployment benefits in primary current public expenditures. Starting from the estimated elasticity of the unemployment gap in relation to the output gap in Serbia and the share of expenditures for unemployment in primary current expenditures in the period 2006 to 2010 it was estimated that the total elasticity of primary current expenditure in relation to output gap is -0.03. Obtained estimations of budgetary elasticities for Serbia, based on output gap are within the range (usually around the middle) of budget elasticities for other European countries [5].

Coefficient of sensitivity of the fiscal balance as the difference between the coefficient of sensitivity of public revenue ( $\eta_r$ ) and the coefficient of sensitivity of current primary expenditure ( $\eta_c$ ) can be determined by starting from the total elasticity of tax revenues and current primary public expenditures in relation to the output gap.

Estimated coefficient of sensitivity of fiscal balance in relation to the output gap in Serbia is 0.34. This means that the reduction of GDP in relation to the potential

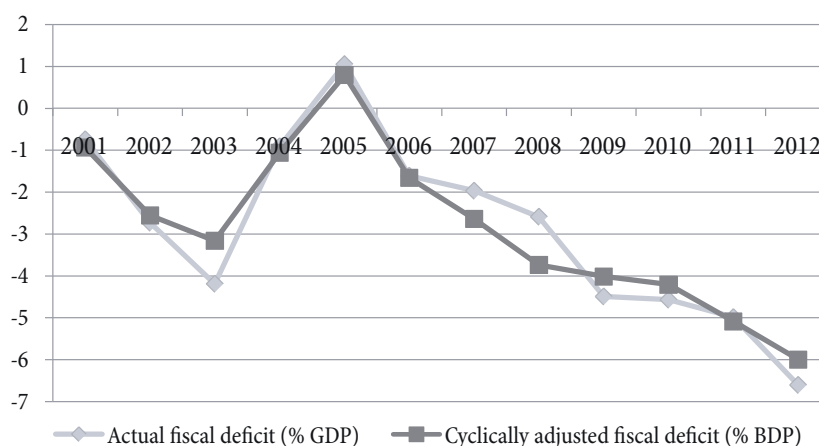
(trend) level by 1%, *ceteris paribus*, results in increase in fiscal deficit by 0.34%.

Comparative data show that the coefficient of sensitivity of fiscal balances in Serbia is lower than the average of OECD countries. At the same time, it is comparable to the values for the countries in the region (such as the Slovak Republic). This is partly due to low sensitivity of tax revenues, but mainly to the low sensitivity of current primary expenditures. The coefficient of sensitivity of tax revenues in Serbia is only slightly lower than the average for OECD countries and EU-10, primarily due to a smaller degree of progressivity of personal income tax and smaller relative amount of this tax (as % GDP) compared to these countries. On the other hand, the coefficient of sensitivity of primary current public expenditures in Serbia is much lower than the average for OECD countries and EU-10, because of the relatively small amount of expenditures on unemployment benefits in Serbia, but also due to a lower elasticity of the unemployment gap in relation to the output gap (starting from 2001 unemployment rate is rising although GDP is growing, because of the excessive employment inherited from the previous decades).

### Estimation of cyclically-adjusted fiscal balance in Serbia

Starting from the estimated coefficients of sensitivity of fiscal balance and procedures for estimation of cyclically-adjusted fiscal balance (CAB), described in the first part of this paper, the cyclically-adjusted fiscal balance for Serbia has been estimated (see Figure 2).

Figure 2: Actual and cyclically-adjusted fiscal balance in Serbia



Source: Authors' calculations

By comparing the actual and cyclically-adjusted deficit it can be concluded that the cyclically-adjusted deficit was relatively close to the real deficit, which means that the actual deficit was dominantly influenced by systemic factors, related to tax policy and spending policy and long-term macroeconomic trends, rather than cyclical fluctuations in GDP. However, in the period 2007-2008 cyclically-adjusted deficit is significantly larger than the actual deficit, suggesting that in this period, economic activity remained above the equilibrium level. Although the absorption gap is not included in this model, its effects are partially “captured” by the high revenues from taxes on consumption during absorption boom. In period of crisis, cyclically-adjusted deficit is smaller than the actual deficit, which is consistent with the expectation that crisis increases the fiscal deficit above the systematic level. It is similar in 2003, when economic activity was slowing below potential level, combined with a one-off increase in spending in the pre-election period, which made actual current deficit larger than the cyclically-adjusted fiscal deficit.

It is interesting to compare the actual and cyclically-adjusted fiscal deficit in Serbia and the new EU member states (EU-10) in pre-crisis year 2008 and 2012 – the fourth year of the crisis (see Table 1). Average actual fiscal deficit in the EU-10 in 2008 amounted to 2.8% of GDP and it was approximately equal to the actual fiscal deficit in Serbia. The average cyclically-adjusted deficit in the EU-10 in 2008 was 5.8% of GDP, which means that it was higher than

the actual fiscal deficit by 3 pp. The difference between the actual and the cyclically-adjusted deficit in 2008 in Serbia is much lower and amounted 1.1 pp of GDP, which indicates that in Serbia the other factors, besides output gap, have had significant impact on the fiscal deficit – the main candidate for this is the absorption gap. In 2012 the average cyclically-adjusted deficit in EU-10 was reduced to 2.2% of GDP, while in Serbia it was increased to 6% of GDP. The differences between actual and cyclically-adjusted deficit in the new EU member states and Serbia have been significantly reduced in 2012 comparing to 2008. The most likely reason for this is the reduction of deviation in the absorption gap in Serbia from the absorption gap in the new EU member states.<sup>5</sup> From the above-mentioned, it can be concluded that the evaluation of the fiscal position of Serbia during the former decade has to take into account not only cyclical fluctuations of GDP but also cyclical fluctuations in absorption.

### Empirical estimation of the structural fiscal balance in Serbia

As previously mentioned, structural fiscal deficit reflects relatively permanent imbalance between taxes and public expenditures, which was primarily the result of fiscal policy, and long-term trends in the economy and society, such as

<sup>5</sup> Non-weighted average of absorption gap in EU-10 in 2008 amounted to 10% of GDP (in Serbia 22% of GDP), while in 2012 it amounted to approximately 2% of GDP in EU-10 (and 9% of GDP in Serbia).

**Table 1: Actual (B) and cyclically-adjusted fiscal balance (CAB) in Serbia and EU-10, % of GDP**

	2008		2012	
	B	CAB	B	CAB
Serbia	-2.6	-3.7	-6.6	-6.0
Bulgaria	1.7	-1.9	-1.5	-0.7
Czech Republic	-2.2	-4.9	-3.5	-2.8
Estonia	-2.9	-5.3	-1.1	-0.4
Latvia	-4.2	-8.1	-1.7	-0.5
Lithuania	-3.3	-6.8	-3.2	-2.1
Hungary	-3.7	-5.6	-2.5	-1.5
Poland	-3.7	-4.9	-3.4	-3.7
Romania	-5.7	-9.3	-2.8	-2
Slovenia	-1.9	-5.9	-4.4	-3.6
Slovak Republic	-2.1	-4.9	-4.9	-4.8
Non-weighted average*	-2.8	-5.8	-2.9	-2.2

\* excluding Serbia

Source: For EU member states the European Commission, for Serbia authors' calculations

changing the structure of aggregate demand and ageing of the population. To assess the structural fiscal deficit it is necessary to exclude the impact of cyclical fluctuations of GDP, cyclical fluctuations in other macroeconomic variables that significantly affect public revenues and expenditures, as well as the impact of irregular – one-off and temporary factors.

Cyclical fluctuations in the current account balance around the sustainable level are significantly affecting the public revenues, and thus the fiscal deficit in many countries, including Serbia. Therefore, in the process of estimating the structural fiscal deficit, the impact of not only the output gap but also the absorption gap and the effects of one-off and temporary factors should be excluded. When GDP and current account deficit are at the equilibrium level, then the output and absorption gaps are zero, the structural fiscal deficit being equal to the actual fiscal deficit, provided that there are no effects of one-off and temporary factors.

As stated in equation (6), the structural deficit reflects both gaps – the output and absorption. In the previous analysis it was estimated that the coefficient of sensitivity of the fiscal balance in relation to the output gap ( $\eta$ ) is 0.32, i.e. 0.34 – average 0.33. The parameters  $\beta$  and  $\gamma$  represent the share of direct and indirect taxes in GDP, and their sum equals the coefficient of sensitivity of the fiscal balance ( $\beta+\gamma=\eta$ ). Starting from the results we have already obtained, the structural fiscal balance in Serbia can be described by the following equation:

$$caab_t = b_t - 0,17\gamma gap_t - 0,17ab_t \quad (14)$$

where  $b_t$  is the real fiscal deficit,  $\gamma gap_t$  – ratio of actual and potential GDP, and  $ab_t$  – absorption gap (as share in potential GDP). The output gap that was used in calculating the structural deficit represents the average of the estimated output gap based on HP filter output gap approach.

The main problem with estimation of structural fiscal deficit refers to the estimation of the sustainable current account balance, necessary to assess the absorption gap. Sustainable (equilibrium) current account balance is defined as a balance that stabilizes the relation of foreign debt (F) or net of foreign assets (NFA) to GDP, on the level at which the probability of balance of payment crisis or foreign exchange crisis is low. For Serbia, it is now more relevant to estimate sustainable current account deficit

based on the sustainable level of foreign debt, rather than NFA. Sustainable current account deficit, similar to the natural or potential level of GDP is not directly measurable, and it is estimated by the different methods which produce different results. Some methods of assessment of sustainable current account deficit are: *i*) estimating *Hodrick-Prescott* (HP) trend in current account balance, *ii*) assessment of CA\* by means of econometric methods, based on economic fundamentals, *iii*) calculating the CA\* to stabilize the relation of foreign debt and net foreign assets to GDP at the particular, predetermined level.

Due to the fact that the current account balance was not at the sustainable level in Serbia in the period from 2001 to 2012, we have used the method of estimation of sustainable current account deficit which stabilizes the ratio of foreign debt to GDP.<sup>6</sup> Deficit of primary current balance ( $cap_t$ ) which stabilizes share of foreign debt ( $\Delta f_{t+1}=0$ ) at a predetermined level (% GDP) is a function of: world real interest rate ( $r_t^*$ ), real exchange rate changes ( $\dot{z}_t$ ), GDP growth rate ( $g_t$ ), the rate of world inflation ( $\pi_t$ )<sup>7</sup>, the net inflow of foreign capital besides borrowing ( $k_t$ ) which is approximately equal to the inflow of foreign direct and portfolio investments, and other irregular factors – debt relief, errors and omissions and others [9]:<sup>8</sup>

$$cap_t = \left( \frac{r_t^* + \dot{z}_t - g_t - \pi_t}{(1+g_t)(1-\dot{z}_t)(1+\pi_t)} \right) f_t - k_t + \Delta rez_{t+1} + o_t \quad (15)$$

Assuming that there are no direct foreign investment and that the share of foreign exchange reserves to GDP ( $k_t = \Delta rez_{t+1} = 0$ ) is unchanged, the previous equation implies that the ratio of foreign debt to GDP is constant

6 In case of Serbia, current account fundamentals were out of equilibrium in the last decade: dinar was overvalued, real wages have grown faster than productivity, inflow of capital was high due to one-off inflows related to large privatizations, while the fiscal deficit was also high. For more details on the estimation of sustainable current account deficit by means of HP filter and econometric models, see [2].

7 The world inflation rate is not usually included in the formula, but its inclusion seems to be justified, since in that manner the world inflation is extracted from the real exchange rate. This is important because the foreign debt to GDP ratio in Serbia depends on the relation between domestic inflation and the exchange rate, but not on world inflation.

8 In comparison to the original formula, two major corrections are performed in this paper: *i*) the sign before the real exchange rate is changed (in order to enable presenting the real exchange rate in accordance with continental tradition which implies that the increase in the real exchange rate reflects real depreciation, while its decline reflects appreciation), *ii*) the element which allows the change in foreign exchange reserves (as % of GDP) is added.



if the primary surplus in the current balance equal to the cost of servicing the interest, adjusted for capital gains / losses from changes in real exchange rate and GDP growth (the first member of the equation on the right), is achieved. However, if there is a significant inflow of foreign capital  $k_f \gg 0$ , then a constant relation of foreign debt to GDP can be achieved with a deficit in the current balance of payments. In this case, a condition for stability of ratio of foreign debt to GDP is that foreign capital inflow is equal to the sum of the primary current balance and the first member of equation on the right. Another important regularity – if the real interest rate are equal to the rate of growth of GDP, and there is no change in real exchange rate or foreign exchange reserves, then the ratio of foreign debt to GDP will be constant, provided that the deficit in primary current balance is equal to the inflow of foreign capital ( $cap_f = k_f$ ).

Although there is no common theoretical framework for determining the optimal ratio of foreign debt to GDP, there are empirical regularities according to which the probability of balance of payments crisis increases with the growth of the foreign debt to GDP ratio. Based on empirical regularities, the World Bank has established the critical threshold of foreign debt at the level of 80% of GDP, which is approximately equal to the actual ratio of foreign debt to GDP in Serbia, during the past few years. However, as the critical level of foreign debt in Serbia is influenced by other factors, starting from equation (10) three current account scenarios have been developed, depending on the level at which foreign debt should be stabilized: *i*) the foreign debt equal to 80% of GDP, corresponding to the current situation, which is probably not sustainable in the long run, *ii*) the foreign debt equal to 60% of GDP, which corresponds to the situation to which Serbia should strive in the next 5-10 years, *iii*) the foreign debt equal to 64% of GDP, which could represent sustainable level in the long run.

In calculation of the current account deficit that stabilizes foreign debt at of each of these levels, three alternative sets of simulations have been performed, in which mutually consistent values of relevant economic parameters have been employed. These are: GDP growth rate, real interest rates, changes in relation of exchange

rate and domestic prices, the share of foreign direct investment in GDP, changes in relation of foreign exchange reserves to GDP and others. The mutual consistency of economic variables in each of the three scenarios is taken into account by making joint simulations of movement in some macroeconomic variables: faster GDP growth coincides with the growing inflow of foreign investment, appreciation of real exchange rate, lower interest rates. By contrast with that, the slower growth of GDP is consistent with a smaller inflow of foreign investment, domestic currency depreciation, and higher real interest rates. Therefore, it is not necessary to simulate all possible mathematical combinations of variables that affect the variation of current account deficit, but only those whose realization is economically the most probable.

Based on the results presented in Table 2, it can be observed that the current account deficit that stabilizes foreign debt to GDP ratio varies in relatively wide interval from 3 to 11% of GDP. One of the observed expected regularities is that as the target foreign debt to GDP ratio is lower the sustainable deficit of current account balance is lower (compare the last column in Table 2). It can also be concluded that regardless of the level at which the foreign debt to GDP ratio is stabilized, faster GDP growth, higher foreign direct investments, real appreciation of dinar and lower real interest rates increase the sustainable/equilibrium level of current account deficit.

Starting from the realistic scenarios of movements in fundamentals, it is estimated that sustainable value of the current account deficit in Serbia in the future is between 3% and 6% of GDP<sup>9</sup>. Even if GDP growth and inflows of foreign direct investments are high, the sustainable current account deficit will be lower, since it is necessary to reduce the foreign debt to GDP ratio gradually from the current level of about 80% of GDP to 40-60% of GDP. These estimates of sustainable current account deficit are conditional and they correspond to “normal” conditions in the capital market, which means that in case of prolonged crisis in Europe sustainable current account deficit would be significantly lower.

<sup>9</sup> Due to an extended crisis in the EU and rise in foreign debt-to-GDP ratio in Serbia, estimation of sustainable current account deficit is corrected compared to the analysis disclosed in [2].



**Table 2: Estimation of sustainable current account deficit, which stabilizes foreign debt to GDP ratio in Serbia**

<b>A) Stabilization of foreign debt at 40% of GDP</b>											
	$r^*$	$\dot{z}$	$g$	$\pi^*$	$f$	$k=fdi$	$\Delta rez$	$other^*=0$	Primary CA*	Interest	Total CA* (% GDP)
Option 1	0.030	0.00	0.02	0.02	0.40	0.02	0.01	0.00	-0.01	0.012	-0.03
Option 2	0.025	-0.01	0.04	0.02	0.40	0.04	0.01	0.00	-0.05	0.010	-0.06
Option 3	0.020	-0.02	0.05	0.02	0.40	0.05	0.01	0.00	-0.07	0.008	-0.07
Average	0.025	-0.01	0.04	0.02	0.40	0.04	0.01	0.00	-0.04	0.010	-0.05

<b>B) Stabilization of foreign debt at 60% of GDP</b>											
	$r^*$	$\dot{z}$	$g$	$\pi^*$	$f$	$k=fdi$	$\Delta rez$	$other^*=0$	Primary CA*	Interest	Total CA* (% GDP)
Option 1	0.035	0.00	0.02	0.02	0.60	0.02	0.01	0.00	-0.01	0.021	-0.03
Option 2	0.030	-0.01	0.04	0.02	0.60	0.04	0.01	0.00	-0.05	0.018	-0.07
Option 3	0.025	-0.02	0.05	0.02	0.60	0.05	0.01	0.00	-0.08	0.015	-0.09
Average	0.030	-0.01	0.04	0.02	0.60	0.04	0.01	0.00	-0.05	0.018	-0.06

<b>C) Stabilization of foreign debt at 80% of GDP</b>											
	$r^*$	$\dot{z}$	$g$	$\pi^*$	$f$	$k=fdi$	$\Delta rez$	$other^*=0$	Primary CA*	Interest	Total CA* (% GDP)
Option 1	0.040	0.00	0.02	0.02	0.80	0.02	0.01	0.00	-0.01	0.032	-0.04
Option 2	0.035	-0.01	0.04	0.02	0.80	0.04	0.01	0.00	-0.06	0.028	-0.08
Option 3	0.030	-0.02	0.05	0.02	0.80	0.05	0.01	0.00	-0.08	0.024	-0.11
Average	0.035	-0.01	0.04	0.02	0.80	0.04	0.01	0.00	-0.05	0.028	-0.08

Source: Authors' calculations

The absorption gap in the period 2002-2012 was calculated as the difference between the actual current account deficit and the estimated sustainable current account deficit of 6% of GDP<sup>10</sup>. By definition, the average absorption gap in the analysed period is the difference between the actual average current account deficit (11% of GDP) and the estimated sustainable current account deficit. Therefore, the sustainable current account deficit of 6% GDP corresponds to the average absorption gap of 5% of GDP.

Starting from equation (10), a sustainable current account deficit of 6% of GDP, and the corresponding values of the absorption gap<sup>11</sup> and the estimated output gap, the structural fiscal balance in Serbia can be computed (Figure 3).

Based on the estimated amount of output and absorption gaps, following the equation (14), structural fiscal deficit has been estimated. The estimates are compared with an average cyclically-adjusted fiscal deficit (CAB). The structural fiscal surplus was achieved only in 2005, while in other years a structural fiscal deficit was

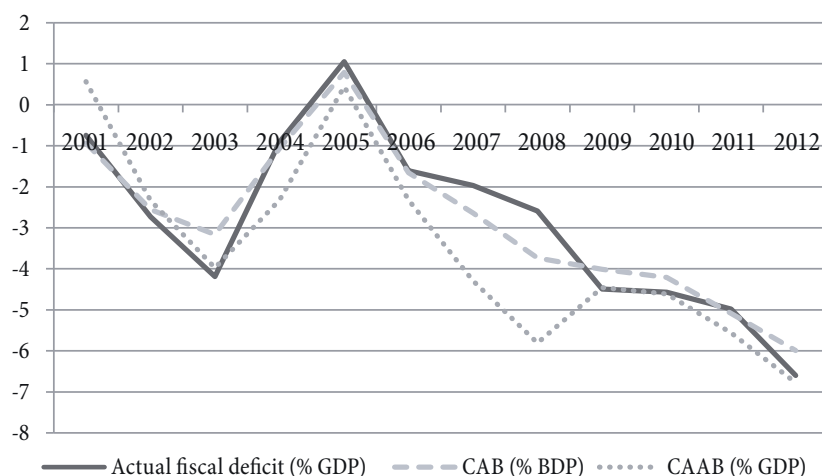
generated. The structural deficit (CAAB) has increased slightly in 2003, while in the period 2006-2008 it has increased substantially. In period of crises from 2009-2010 structural fiscal deficit decreases, but in 2011 and 2012 it increases again.

One of the interesting features is that the estimation of cyclically-adjusted and structural fiscal balance are close in the period 2002-2006, the difference increasing significantly in the period 2006-2008, and then decreasing during the period 2009-2010 and increasing starting from 2012. The greatest differences between cyclically-adjusted and structural deficit estimated by the two methods were in 2007 and 2008. We are reminding that the current account deficit in 2007 was about 17% of GDP and in 2008 up to 22% of GDP, which is considerably above a sustainable level. The structural fiscal deficit in Serbia, on average, deviates from the actual fiscal deficit more than is the case with cyclically-adjusted fiscal deficit. Based on the aforementioned, it follows that in case of Serbia it is necessary to take into account absorption gap when estimating the structural fiscal deficit. The structural deficit, which includes the absorption gap, is on average higher than the cyclically-adjusted deficit, which includes only the output gap.

<sup>10</sup> Note that in the past sustainable current account deficit was larger than it will be in the future, since in the past foreign debt was lower, the revenues from privatization were generated, etc.

<sup>11</sup> For alternative estimations of absorption gap and respective structural deficits see [2].

Figure 3: Actual, cyclically-adjusted and structural fiscal deficit in Serbia, % of GDP



Source: Authors' calculations

### Analysis of the contribution of individual factors to the structural fiscal deficit in Serbia

The formation of structural fiscal deficit in Serbia (see Table 3) in a relatively short period (2006-2008) occurred under the dominant influence of discretionary economic policy measures, or measures related to reduction in taxes and increase (more or less permanent) in public expenditure. Nominal freeze of public wages and pensions during 2009-2010, when inflation was relatively high, contributed to reduction in the structural fiscal deficit significantly. Fiscal decentralization program, consisting of transfer of 40% of wage tax revenues from central to local governments, contributed to considerable increase of structural deficit in 2011-2012. Influence of long-term trends on forming

the structural fiscal deficit also existed, but it was smaller, given the short period of time.

The formation of structural fiscal deficit in the period from 2006 to 2008 was partially masked by high tax revenues in the period of economic expansion and absorption boom. The start of formation of the structural fiscal deficit coincides with the ending of arrangement with the IMF, and generating high revenues from privatization and a series of parliamentary and presidential elections. In the last quarter of 2012 the Government of Serbia has started with implementation of fiscal consolidation measures (mostly based on increase in taxes), which are expected to reduce slightly structural fiscal deficit in 2013. However, in order to achieve significant cut in fiscal deficit, it would be necessary to implement additional measures, mostly through expenditure cuts, in 2013 and 2014.

Table 3: Contribution of particular measure and trends to the structural fiscal balance in Serbia

Year	Cause	Effect on structural fiscal deficit (% GDP)
2006	1) Increase in wages in public sector, and agreed increase in 2007	≈ 0.7
2007	2) Reduction in wage tax and introduction of non-taxable threshold	≈ 1
2007	3) Transfer of some goods from standard to reduced VAT rate	≈ 0.7
2008	4) Extraordinary increase in public wages by 22%	≈ 2.5
2008 - ...	5) Reduction in customs rates on import of goods from the EU	≈ 1.5
2011	6) Redistribution of the part of wage tax revenues to local level	≈ 0.7
2009-2010	7) Freezing wages and pensions	≈ -2.5 do -3
2009-...	8) Increase in excise duties, etc.	≈ -0.5 do -1
2011-2012	9) Transfer of 40% of wage tax revenues to local governments	≈ 1
	<b>10) Total effects of discretionary measures (1)+...+(9)</b>	≈ 4,5 - 5
	<b>11) Macroeconomic and demographic trends (rebalancing of the economy)</b>	≈ 1
	<b>TOTAL (10)+(11)</b>	≈ 5.5 - 6

Source: Authors' calculations

## Conclusion

Economic theory and practice in developed countries suggest the need to estimate the fiscal position of the country, and to run fiscal policy based on the structural fiscal balance, which indicates a systemic (im)balance between taxation and public expenditure policies. The actual fiscal balance, which is affected by the height of taxes and public expenditures, but also by cyclical movements in the economy, and various special, one-off events, may at certain times provide distorted picture of the country's fiscal position and encourage fiscal policy makers to adopt measures which are unsustainable in the long run. Therefore, the new fiscal pact in the European Union has been introduced, imposing the limit to the level of structural fiscal deficit, while keeping the existing limit for the actual fiscal deficit.

In the period before the 2008 crisis, Serbia was running modest fiscal deficit, due to higher revenues in the period of economic expansion and absorption boom. High tax revenues have created the illusion that there is a fiscal space for reducing tax rates and a permanent increasing of public expenditure. In the period from 2006 to 2008 the adopted measures that have resulted in increasing the structural fiscal deficit due to strong economic growth and even stronger growth of absorption, have not been reflected in the substantial growth in actual (measured) fiscal deficit. In the pre-crisis year actual fiscal deficit in Serbia amounted less than 3% of GDP while the structural fiscal deficit amounted to 5-6% of GDP. Increase in the structural fiscal deficit coincides with economic expansion, absorption boom, but also with the parliamentary elections in Serbia. The fiscal deficit was increased not only before the elections in order to gain votes, but also after the elections, to fulfil at least some of the pre-election promises. From the above it follows that the introduction of fiscal rules was justified for the realization of a sustainable fiscal policy in Serbia. At the same time, it is necessary to correct applicable rules in order to make their application compulsory.

After the beginning of the economic crisis there was a fall in economic activity and reduction in absorption gap, which directly caused the substantial increase in actual fiscal deficit in the period 2009-2010, despite the relatively

harsh austerity measures, such as freezing public wages and pensions, reducing transfers to local governments and temporarily increase in some taxes. Starting from 2011, structural fiscal deficit rises again, mostly due to transfer of 40% of wage tax revenues to local self-governments.

High fiscal deficit during the crises triggered increase in the public debt by over 30% of GDP, in the period from the end of 2008 by the middle of 2012, reaching the level of 60% of GDP. For the country at low level of economic development and credit rating, this is the zone of high risk of sovereign debt crisis. To prevent such scenario, it is necessary to make reduction of the fiscal deficit by 4-5% of GDP in a relatively short period of time. In Q4 2012 the Government of Serbia started with implementation of fiscal consolidation program, which was mostly relying on increase in taxes and to lesser extent on cut in expenditures. These consolidation measures are expected to reduce structural fiscal deficit by 2% of GDP in 2013. However, in order to reach the target (structural deficit lower than 1% of GDP in 2015), it is necessary to implement additional measures, which should mostly consist of cut in expenditures, because further increase in taxes could have adverse effects on competitiveness of the Serbian economy. To determine how the reduction is possible and desirable, it is necessary to analyse the nature of the fiscal deficit in Serbia and the causes of its occurrence.

The results show that the most of the fiscal deficit in Serbia is of structural nature, and as such is stable and is present in almost all years of the analysed period, except in 2005, which is consistent with the systematic nature of this deficit. This means that the fiscal deficit in Serbia will not be automatically, spontaneously eliminated with the economic recovery, but large discretionary measures are necessary to reduce expenses and increase taxes to a lesser extent. Since the structural fiscal deficit reflects the impact of long-term macroeconomic trends, such as a rebalancing of the economy and ageing of the population, it is necessary to adopt economic policy measures timely, in order to prevent their influence on the growth of fiscal deficit. Rebalancing of the economy from consumption to investment and export-led growth will reduce taxes, while ageing of the population will affect the increase in expenditures for pensions, health and social care. This means that both trends (rebalancing of

the economy and ageing population) will lead to increase in the structural fiscal deficit in the following period. Therefore, timely reform of the pension system and the reforms of other segments of public consumption, as well as the tax reform are needed to neutralize the impact of long-term trends on the structural fiscal deficit in Serbia.

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## RESOLUTION OF COMMERCIAL DISPUTES THROUGH ARBITRATION AS A CONTRIBUTOR TO IMPROVEMENT OF BUSINESS ENVIRONMENT IN SERBIA<sup>1</sup>

Rešavanje privrednih sporova putem arbitraže kao  
faktor unapređenja poslovnog ambijenta Srbije

### Abstract

The paper presents a brief overview of selected arbitration-related issues (legal framework for arbitration, different types of arbitration, arbitration agreement, arbitrators, seat of arbitration, law applicable to the arbitration proceedings and merits, arbitration award, costs), in light of contemporary arbitration trends and practices and with special emphasis on Serbian legislation and existing arbitral practice in Serbia. Furthermore, it provides readers with drafting considerations when agreeing to arbitration, and comparative analyses of advantages and disadvantages of arbitration, as dispute resolution mechanism which can, in authors' view, significantly contribute to reduction of transaction costs and overall improvement of business environment in Serbia.

**Key words:** *arbitration, commercial disputes, arbitrators, arbitration agreement, applicable law, arbitral award, costs*

### Sažetak

Predmet rada predstavlja analizu najvažnijih instituta arbitražnog prava (pravni okvir, vrste arbitraže, arbitražni sporazum, arbitri, mesto arbitraže, merodavno pravo, arbitražna odluka, troškovi) u svetlu savremenih arbitražnih trendova i prakse. Posebna pažnja posvećena je srpskom pravnom okviru za arbitražu, kao i srpskoj arbitražnoj praksi. Rad sadrži i konkretne preporuke od značaja za pravilno sastavljanje arbitražnih klauzula, kao i uporednu analizu prednosti i mana arbitraže kao mehanizma za rešavanje sporova koji, prema mišljenju autora, može dovesti do značajnog smanjenja transakcionih troškova i doprineti unapređenju poslovnog ambijenta Srbije.

**Ključne reči:** *arbitraža, trgovački sporovi, arbitri, arbitražni sporazum, merodavno pravo, arbitražna odluka, troškovi*

### General introduction

Arbitration is a private system of dispute resolution based on parties' consent [16, p. 1], [14, p. 17]. The decision makers in arbitral proceedings, i.e. arbitrators – are individuals selected by the parties, independent from national governmental and judicial hierarchy. They may be, and often are, lawyers, but they may as well be experts in other areas such as engineers, architects or economists. The procedural setting for arbitration, including the place of arbitration, language of the proceedings as well as the applicable rules, is to a large extent tailored by the parties, whereas the final product of arbitration – an arbitral award – in most instances is a final and binding decision that cannot be appealed to a higher-level court.<sup>2</sup>

The use of arbitration as a mechanism for dispute resolution dates back to the Roman times [27, pp. 526-530], [3, pp. 7-64]. Yet, in the past few decades it has received increased popularity and global recognition as the 'ordinary and normal method' of resolving commercial and investment disputes, in particular those of international character [1, p. 1], [16, p. 1], [19, p. 187], [4, p. 17]. This is

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2 Unlike many arbitration laws, 1996 English Arbitration Act in limited circumstances provides for an appeal to the court on a question of law, unless the parties have agreed otherwise (Art. 69(1)).



due to its adaptability to the needs of business community and its multi-faceted advantages over litigation before national courts.<sup>3</sup> Consequently, by agreeing on arbitral dispute resolution Serbian businesses would not only enable themselves with recourse to a faster and in most cases less costly and more efficient dispute resolution mechanism, but would also significantly contribute to enhancement of overall business climate in Serbia.<sup>4</sup>

This is particularly important given that Serbia is ranked as 103<sup>rd</sup> country in the world in enforcing contracts, according to 2013 Doing Business World Bank Survey, as it takes 635 days to enforce a contract before a court at costs amounting to 31,3% of the claim and after utilizing 36 different procedures.<sup>5</sup> Thus, the aim of this paper would be to provide business decisions makers in Serbia with a necessary insight into the basic notions of arbitration, as well as its advantages and applicability in the context of their commercial transactions. This in turn would reflect on commercial entities making informed decisions when choosing the appropriate alternative adjudication mechanism that would govern their business relationship once the dispute has arisen and thus contribute to reduction of transaction costs.

The paper contains a brief overview of selected arbitration-related issues (legal framework for arbitration, different types of arbitration, arbitration agreement, arbitrators, seat of arbitration, law applicable to the arbitration proceedings and merits, arbitration award, costs), in light of contemporary arbitration trends and practices and with special emphasis on Serbian legislation and existing

arbitral practice. Furthermore, it provides readers with drafting considerations when agreeing to arbitration, and comparative analyses of advantages and disadvantages of arbitration as dispute resolution mechanism.

## Different types of arbitration

Arbitration may be classified pursuant to several criteria. Based on the organization structure of the arbitration, arbitrations may be institutional or *ad hoc*; based on existence (or lack thereof) of a foreign element and the localization of the seat arbitrations may be regarded as either domestic or international; based on the subject matter of the dispute, arbitration may be general (dealing with all kinds of disputes) or specialized (dealing specifically with e.g. maritime disputes, intellectual property disputes, sport-related disputes etc); based on the character of the parties in dispute arbitration may be open or closed (only for members to a specific trade association – e.g. wheat, cotton or corn association etc.). Having in mind the aim and scope of this paper, the authors have decided to focus solely on the first two of the mentioned classifications in the upcoming paragraphs.

When agreeing on arbitration, the contracting parties may opt for a certain institutional or *ad hoc* arbitration.<sup>6</sup> Institutional arbitrations exist within chambers of commerce or other professional associations; they are not contingent on the existence of a particular dispute; they have a permanent organization, technical apparatus (office space and secretariat), detailed set of Rules and often the suggested (or mandatory) list of arbitrators.<sup>7</sup>

3 In an international arbitration survey conducted by Queen Mary School of International Arbitration in 2006, 73% of respondents interviewed stated that they prefer to use international arbitration to resolve their cross border disputes [20]. The 2013 survey shows that certain industries, such as construction and energy, use international arbitration as a clearly preferred dispute resolution mechanism [22]. The top reasons for choosing international arbitration are flexibility of procedure, the enforceability of the awards, the privacy afforded by the process, the ability of parties to select the arbitrators and the depth of expertise of arbitrators.

4 According to *Casella*, the arbitration contributes not only to an increase of a competitiveness of a business exposed to arbitration, but also adds to expansion of international trade, which subsequently positively affects the domestic market where such business is located and unburdens the judiciary [5]. On a more local level, arbitration contributes to the local economy as it generates a variety of accompanying economic activity, from use of local counsel, experts and arbitrators, to use of local legal support and venues, local hotels and restaurants [6, p. 10].

5 According to 2013 Doing Business World Bank Survey, the trial itself lasts on average 495 days in Serbia, whereas it takes 110 days to enforce a judgment [9].

6 However, in some countries opting for an *ad hoc* arbitration is not allowed. This is, for example, a case in China. Furthermore, in the Republic of Macedonia, domestic disputes (unlike international ones) may only be arbitrated before the institutional arbitration.

7 Some of the most renowned institutional arbitrations worldwide are: International Chamber of Commerce Arbitration Court in Paris (ICC Arbitration Court), Courts of Arbitration attached to Swiss Chambers of Commerce, The London Court of International Arbitration (LCIA), American Arbitration Association (AAA), the International Centre for Dispute Resolution (ICDR), The Arbitration Institute of the Stockholm Chamber of Commerce (SCC), Vienna International Arbitration Centre (VIAC), German Institution of Arbitration (DIS), The International Commercial Administration Court at the Russian Federation Chamber of Commerce and Industry (ICAC), China International Economic and Trade Arbitration Commission (CIETAC), The Hong Kong International Arbitration Centre (HKIAC) and Singapore International Arbitration Centre (SIAC).

On the other hand, *ad hoc* arbitrations are established to resolve a specific dispute, and they cease to exist once the arbitration award is delivered. They have no permanent organization, no office space and administration, whereas the applicable rules in these arbitration are usually subject to agreement of the parties, UNCITRAL Rules of Arbitration (dated 15 December 1976, and revised in 2010) adapted specifically to this type of arbitration [19, p. 189].

From the outlined differences between institutional arbitration and *ad hoc* arbitration stem the main advantages and disadvantages of each choice. Institutional arbitration performs important administrative functions that help both the parties and the arbitrators (selection of the arbitrators, communication between the parties and the arbitrators, fee collection etc.). Furthermore, the institutional arbitral centers provide for carefully drafted arbitration rules which guarantee both the efficiency of the arbitral process and its foreseeability. Last but not least, the credibility of the arbitral institutions makes the non-prevailing party less interested in denying the enforcement of the arbitral award or engaging in the set-aside procedure. On the other hand, parties may prefer *ad hoc* arbitration as it provides for their greater impact in making the rules of procedure compliant to the needs of their specific dispute. Furthermore, the pool of arbitrators they may choose from is in no way limited by sometimes mandatory lists of arbitrators in the institutional arbitral setting. Moreover, *ad hoc* arbitrations may be more attractive when one party to the dispute is a state entity or a state, or where a dispute regards a particularly complex issue which requires tailor-made rules of procedure. Finally, *ad hoc* arbitrations may be less costly, as there

are no administrative fees to be paid and the arbitrators' fees are subject to negotiation between the parties and arbitrators. However, the efficiency of *ad hoc* arbitration requires to a large extent the cooperation of the parties. In cases where parties attempt to obstruct the proceedings, the institutional arbitration is a much better choice as it does not require a court involvement in bringing the proceedings back to their right track.

Although there are no statistics on the number of cases brought before *ad hoc* arbitral tribunals, relevant arbitration surveys show that institutional arbitrations are preferred choices in today's world of arbitration.<sup>8</sup> The most commonly cited reasons for opting for institutional arbitration are reputation, familiarity with proceedings, an understanding of costs and fees and the convenience of using an established process [20]. As for the competition between different arbitral institutions, it can be noted from Table 1 that ICC Court of Arbitrations is still a leading institution in Europe, whereas the ICDR is a leader in North America and CIETAC on Asian soil.<sup>9</sup>

Whether an arbitration is domestic or international depends either on the nationality of the parties, or on the place of performance of party's obligations or location of the seat of arbitration. According to Article 1(3) UNCITRAL Model Law arbitration is deemed international if:

8 The 2006 Queen Mary arbitration survey shows that over 75% of corporations opt for institutional arbitration. The ICC, AAA/ICDR and LCIA are listed as the most commonly used by participating corporations [20].

9 Presented statistics are made available by Intuitions on their websites. It should be noted that the proportion of international cases varies greatly from institution to institution. For example, in 2009: 172 cases were filed before DIS, out of which in only 45 foreign parties were involved; 48 cases were filed before VIAC out of which 26 involved foreign parties; 216 cases were filed before SCC out of which 96 involved foreign parties, etc.

**Table 1: Annual caseload of leading arbitral institutions**

Institution	Type	2007	2009	2011	TOTAL
ICC	International and domestic	599	817	795	2211
LCIA	International and domestic	137	272	224	633
SCC	International and domestic	170	216	199	585
Swiss Chambers	International	59	104	87	250
DIS	International and domestic	100	172	174	446
VIAC	International and domestic	30	48	83	161
AAA/ICDR	International	621	836	994	2451
HKIAC	International	448	649	275	1372
SIAC	International	86	160	188	434
CIETAC	International	1118	1482	1435	4035

- “(a) the parties to an arbitration agreement have, at the time of the conclusion of that agreement, their places of business in different States; or
- (b) one of the following places is situated outside the State in which the parties have their places of business:
- (i) the seat of arbitration if determined in, or pursuant to, the arbitration agreement;
  - (ii) any place where a substantial part of obligations of the commercial relationship is to be performed or the place with which the subject-matter of the dispute is most closely connected; or
- (c) the parties have expressly agreed that the subject-matter of the arbitration agreement related to more than one country”<sup>10</sup>.

This distinction may be significant because different rules may apply to domestic and international arbitration, and thus party’s autonomy may be less (in international arbitration) or more limited (in domestic arbitration).<sup>11</sup> Furthermore, the distinction is relevant because certain arbitral institutions reserve their competence only to issues relating to international disputes, whereas others offer their dispute resolution services irrespective of the type of dispute.<sup>12</sup> The differentiation between the two is often better observed from the perspective of practical

considerations examined by the arbitral tribunals in practice and the relevant issues reviewed in this regard.<sup>13</sup>

## Arbitral institutions in Serbia

There are only two existing arbitral institutions in Serbia at the moment: 1) The Foreign Trade Court of Arbitration attached to the Serbian Chamber of Commerce – FTCA, providing services for resolution of disputes of international business character and 2) The Permanent Court of Arbitration attached to the Serbian Chamber of Commerce – PCA, providing services for resolution of domestic business disputes amongst its members, both of which have a long lasting history dating back from the second half of the XX century. While the full statistics on the PCA work were not available to the authors, the statistics of FTCA clearly confirm the importance that this institution played for the resolution of business disputes amongst the parties from former Yugoslavia and abroad. Namely, as Table 2 shows<sup>14</sup>, already in the period of 1951-1960, 580 disputes were resolved before this arbitration institution, i.e. 58 per year, which is a significant number of international

10 The same criteria for defining international arbitration have been used in Art. 3 of the Serbian Arbitration Law. This article further specifies that for the purposes of this Law the international arbitration relates to disputes arising out of international business relations. Whilst Serbian Law of Arbitration does not define what is encompassed under the term international business relations, the UNCITRAL Model Law in Art. 1, ft. 2 specifies that: “the term ‘commercial’ should be given a wide interpretation so as to cover matters arising from all relationships of a commercial nature, whether contractual or not. Relationships of a commercial nature include, but are not limited to, the following transactions: any trade transaction for the supply or exchange of goods or services; distribution agreement; commercial representation or agency; factoring; leasing; construction of works; consulting; engineering; licensing; investment; financing; banking; insurance; exploitation agreement or concession; joint venture and other forms of industrial or business cooperation’ carriage of goods or passengers by air, sea, rail or road”.

11 According to Serbian Law on Arbitration, in international arbitration parties are free to agree upon application of foreign procedural law (Arts. 2 and 32) and substantive law (Art. 50). Furthermore, in some countries (e.g. Macedonia) domestic arbitration proceedings must be conducted before the institutional arbitration and not before the *ad hoc* arbitral tribunal.

12 E.g. The FTCA Rules provide only for settlement by arbitration of disputes of international business character (Art. 1).

13 A recent arbitral award rendered by the arbitral tribunal acting under the Rules of the Foreign Trade Court of Arbitration attached to the Serbian Chamber of Commerce confirms the acceptance of the wider definition of the internationality of a dispute introduced by the new Serbian Arbitration Law by accepting jurisdiction in a case where both parties were companies established and registered in Serbia, the contract was concluded in Serbia, the contract was to be performed in Serbia, and Serbian law was chosen as the applicable law. Despite these facts, the Tribunal found that the underlying dispute arises out of an international business transaction based on the fact that the contract was drafted both in Serbian and English language, whilst it was stated that in case of a dispute the English version should prevail; the language of communication between the parties was English; the currency of the Respondent’s obligation to pay was foreign (EUR) and a foreign company (UK company with seat in London) had the controlling share in the capital of the Respondent company (100% share), whose director and agent was a foreign person. The small amount of the Respondent’s capital (1,500 EUR) and the entire property over the company by a foreign company were also held to show that the Respondent company was established only as a legal instrumentality of the foreign company for purposes of achieving the specific goal – making the investment in Serbia. As an additional indicator of the international character of the underlying transactions the Claimant pointed out that the Respondent started performing the contract (building a factory for the Claimant) upon being granted subsidies by the Serbian Investment and Export Promotion Agency. Finally, the Tribunal pointed out that the parties themselves deemed that the contract is of an international character, as they provided for jurisdiction of FTCA in their contract. (FTCA Award No. T-11/08 of 15 April 2009).

14 Presented statistics are available thanks to the courtesy of the FTCA Secretariat.

Table 2: Caseload of Serbian FTCA

Period	Number of cases filed	Average per year
1947-1950	14	3
1951-1960	580	58
1961-1970	1244 including "Fair disputes" <sup>15</sup>	124
	655 excluding Fair disputes	65
1971-1980	2617 including Fair disputes	261
	814 excluding Fair disputes	81
1981-1990	3017 including Fair disputes	301
	1232 excluding Fair disputes	123
1991-2000	585 including Fair disputes	58
	340 excluding Fair disputes	34
2001-2010	242	24

cases not only if measured by past, but present standards as well. The number steadily grew over the years until the years of dissolution of the SFRY, when the caseload of the FTCA plummeted. Not only did traditional customers of the FTCA from former Yugoslav republics cease to bring their disputes before the FTCA but, given the UN economic sanctions, there were hardly any new contracts being concluded which would call for jurisdiction of the FTCA. Prospects looked marginally better once the sanctions were lifted, and after 2001 looked set to improve. However, as the figures show, current caseload is only a fraction of what it used to be. For what it is worth, it is still amongst the highest in the region and the highest in comparison to other institutional international arbitration centers established in the former Yugoslav republics [8, p. 3].

As for the values involved in cases brought before the FTCA, the majority of cases (53%) filed from 2005 to 2011 regard claims for the amounts up to EUR 50,000, 34% deal with cases involving amounts from EUR 50,000 to EUR 1 million, whereas only 12% of the cases deal with claims over EUR 1 million. The largest amount of the claim filed before the FTCA amounts to EUR 68.347.168 (in 2010). As to the users of the FTCA services, apart from Serbian business, the parties involved in arbitration before FTCA in the period of 2005-2011 came from Macedonia (in 18% of cases), Bosnia and Herzegovina

(15%), Italy (7%), Russia (6%), Hungary and Montenegro (4% each), Germany, Switzerland, Croatia and Romania (3% each), USA, Cyprus, Bulgaria and Albania (2% each), whereas parties from Greece, Austria, Slovakia, France, UK, Spain, Ukraine, Hong Kong, British Virgin Islands, Slovenia, Lebanon, Turkey, Lithuania, Sweden, United Arab Emirates, Netherlands and Poland participated in at least one arbitration proceedings.<sup>16</sup>

The information on the number of cases filed before the PCA in the past five years<sup>17</sup> shows that institutional domestic arbitration has so far failed to raise sufficient interest amongst the Serbian business community. While the reasons for this occurrence remain unknown to the authors, it is important to underline additional obstacles to the future work of the PCA caused by the recent entry into force of the Law on Commercial Chambers. Namely, according to the Law, the jurisdiction of the PCA is limited to resolution of the disputes amongst the members of the Chamber of Commerce of Serbia. However, as the mandatory membership requirement is now abolished, one may reasonable challenge the utility of agreeing on the jurisdiction of the PCA where it will be contingent on the membership to the Chamber of Commerce of Serbia – a condition which may be difficult if not impossible to predict whether it will be fulfilled at the time when the dispute arises and the need to submit a dispute before the PCA. The authors strongly recommend to the business users of arbitration to take this fact in consideration when

15 The Belgrade Fair was founded in 1958. The work of other Fairs in former Yugoslav republics was also developing at that time. They soon became the largest user of the FTCA services by filing requests for arbitration for unpaid rent of foreign lessees of their exhibition space. The first such case was filed in 1961, whilst this practice ceased in 1993. These cases amounted to 18,8% FTCA caseload in 1963 and up to 87,32% in 1980. In the meantime, the number of cases filed by Belgrade and other Fairs from former Yugoslavia approximately amounted to half of the FTCA's caseload.

16 The information on the values of claims submitted to FTCA, and nationality of the parties to the proceedings, was obtained from the FTCA Secretariat.

17 According to information received from the PCA Secretariat, the number of cases in the past five years is marginal, i.e. amounts to less than 10 altogether.



agreeing upon arbitration before the PCA. Under these circumstances and in the absence of an alternative dispute resolution venue in Serbia, it is far better to call for an *ad hoc* arbitration than to agree on the PCA jurisdiction and risk ending up before state courts because one or both of the parties to the arbitration agreement is no longer a member of the Serbian Chamber of Commerce at the time the dispute has arisen.

## Legal framework for arbitration

The legal framework for arbitration is built up by both international and domestic sources. The most important international sources of arbitration law are the ratified international conventions related to arbitration, such as: Protocol on Arbitration Clauses of 1923 (Geneva Protocol), Convention on Execution of Foreign Arbitral Awards of 1927 (Geneva Convention), Convention on Recognition and Enforcement of Foreign Arbitral Awards of 1958 (New York Convention), European Convention on International Commercial Arbitration of 1961 (European Convention), Convention on the Settlement of Investment Disputes Between States and Nationals of Other States of 1965 (Washington Convention), all of which the Republic of Serbia is a party to. On domestic level, arbitration is regulated either in laws dealing with civil procedure, or in laws dealing with international private law, whilst some countries have enacted a separate act on arbitration (domestic and/or international) [11, pp. 71-213].

The relevant provisions of arbitration-related regulation in Serbia have until 2006 been codified in the Law on Civil Procedure and the Law on International Private Law, whereas now they are contained in the separate Law on Arbitration (hereinafter referred to as LA), based on 1985 UNCITRAL Model Law on International Commercial Arbitration (hereinafter referred to as UNCITRAL Model Law),<sup>18</sup> regulating both domestic and international arbitration, whether commercial or not (Art. 1 LA).

It is important to underline that all of these sources

<sup>18</sup> The UNCITRAL Model Law has now received global recognition as more than 60 countries have tailored their respective national legislation in accordance with the provisions of the Model Law. A complete list of national jurisdictions that adopted the UNCITRAL Model Law is available at UNCITRAL web-site: [www.uncitral.org](http://www.uncitral.org).

recognize the party autonomy as a primary source of arbitration law and, at the same time, give high regard to usages and business practices as elements of business oriented regulatory framework for arbitration.

## Arbitration agreement

### Notion

The main prerequisite for arbitration proceedings to take place is to have a valid agreement of the parties to submit their current or future dispute in respect of a defined legal relationship to arbitration (Art. 9 LA). The arbitration agreement is thus a mandatory requirement for the establishment of jurisdiction of arbitration and a constituent basis for derogation of the state court jurisdiction (Art. 4 LA).

Arbitration agreement appears in two forms, depending on whether the arbitration is envisaged for all future disputes that may arise from the defined legal relationship between the parties or for the already existing dispute. The former is usually referred to as an arbitration clause (*clause compromissoire*), and the latter as an arbitration compromise (submission agreement, *compromis d'arbitrage*) [17]. In international business practice, the arbitration compromise has been less frequently used, which is not surprising given that once the dispute has arisen it is less likely for the parties to reach an agreement on any aspect of the dispute, including the dispute resolution mechanism. The differentiation between the arbitration clause and the arbitration compromise does not bear a significant practical relevance, given that the contemporary sources of arbitration law treat both forms of arbitration agreement equally.

### Essential elements

Parties' freedom to agree on the terms of the arbitration agreement is subject to the general rules on validity of the arbitration agreement (capacity to conclude contracts, meeting of minds, subject-matter, basis, and form of the agreement) [17, pp. 87-151]. The essential elements of an arbitration agreement are the constitution of the arbitral jurisdiction and delimitation of dispute(s) falling under the competence of arbitration.



Parties to the agreement have to be explicit about their amicable intention to submit the resolution of their dispute to arbitration. The intention to constitute the arbitral jurisdiction has to be clearly formulated, so that there is no room for doubt with respect to the intention of the parties to entrust the arbitration with the power to resolve their dispute and to their decision to recognize the resulting arbitration award as final and binding.

If the parties opt for an institutional arbitration, it suffices to agree on certain rules of that arbitration for the constitution of arbitral jurisdiction.<sup>19</sup> Unlike the institutional setting, *ad hoc* arbitration does not have its rules or permanent organization, offices, administration, and the list of arbitrators. Thus, it is necessary that the parties, which opt for the *ad hoc* arbitration define in the arbitration agreement all the matters relevant for the constitution of jurisdiction and the conduct of the proceedings. If they fail to do so, and the seat of *ad hoc* arbitration is in Serbia, provisions of the Law on Arbitration would apply by default, filling in the gaps within the agreement of the parties.

Arbitrators may rule only on the issues that are within the scope of arbitration agreement. Ruling beyond the limits set in the arbitration agreement constitutes the excess of the authority by arbitrators and represents the basis for setting aside the arbitration award and refusal of its recognition and enforcement.<sup>20</sup> Thus, it is important both that the parties to the arbitration agreement carefully define the scope of the disputes that they wish to resolve by arbitration and that the arbitrators pay due regard whether issues submitted to them for resolution fit in their mandate as defined by the arbitration agreement.

In addition to these essential elements, the arbitration agreement usually has other elements, which, although not required, significantly contribute to the completeness and precision of the arbitration clause. They may relate to the seat of arbitration, number of arbitrators, applicable

law, language of the proceedings, qualities and the qualifications of arbitrators, appointing authority, and other [19, p. 191 *et seq.*]. However, it needs to be pointed out that the short and simple arbitration clause is often much better suited for arbitration, than an elaborate or complex clause [15, p. 166].

Various institutional arbitrations offer their model arbitration clauses on their respective web-sites as recommendation to the parties when drafting the contract and conferring jurisdiction to these institutions, as their wording guarantees the existence of a valid and enforceable arbitration agreement thus safeguarding the parties from long and unnecessary interpretations of the clause by the arbitral tribunal.<sup>21</sup> Although in some cases, tailored clauses may suit business needs better than suggested model clauses, it is of utmost importance to include experienced arbitration practitioners in the drafting process in order to avoid many potential pitfalls in this regard.<sup>22</sup> This should come as no surprise, as experienced lawyers would usually negotiate and stipulate a better contract – the same standards apply to formulation of the arbitration clause as a part of it. It is thus recommended for parties to always consult a seasoned arbitration practitioner in formulating the arbitration clause, as this may have significant impact on events taking place after the contract comes under fire and the dispute between the parties arises.

### Form of the arbitration agreement

Unlike the main contracts in a business transaction,

19 Every institutional arbitration has its arbitration rules and it is considered that the parties by agreeing on institutional arbitration at the same time accept the rules of that arbitration to be applicable to the arbitration proceedings, and vice versa. These rules apply to the organization and jurisdiction of arbitration, constitution of the arbitration tribunal, arbitration proceedings, arbitration award, costs of arbitration, and other.

20 See Art. V(1)(c) of the New York Convention and Art. 34(2)(iii) of the UNCITRAL Model-law.

21 e.g. the ICC Model arbitration clause states: "All disputes arising out of or in connection with the present contract shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with the said Rules." The FTCA clause provides: "The parties agree that any dispute arising out of or in connection with the present contract shall be finally settled by the Foreign Trade Court of Arbitration attached to the Chamber of Commerce and Industry of Serbia by application of its Rules". The UNCITRAL model clause states: "Any dispute, controversy or claim arising out of or relating to this contract, or the breach, termination or invalidity thereof, shall be settled by arbitration in accordance with the UNCITRAL Arbitration Rules as at present in force." Additional elements recommended for consideration suggested by UNCITRAL include: (a) The appointing authority; (b) The number of arbitrators; (c) The place of arbitration; (d) The language(s) to be used in the arbitral proceedings and (e) The law governing the proceedings.

22 For example, the parties should avoid providing only for an option to choose arbitration; the precise dispute resolution mechanism should be clearly specified; incorrect references to the arbitral institution should be avoided etc.

arbitration agreements must be concluded in writing. Written form of the arbitration agreement is required by the international conventions, national laws, and the rules of the institutional arbitrations. Pursuant to traditional solution, accepted in majority of the sources of arbitration law, the requirement of a written form is met if the agreement is contained in one document (principal agreement in terms of arbitration clause, and special document in terms of arbitration compromise), or if it is evidenced by the means of communications which ensure the proof of existence of the arbitration agreement, including the exchange of statement of claim and defense in which one of the parties invoked the existence of the agreement and the other did not contest the jurisdiction of the arbitral tribunal.<sup>23</sup> Incorporation of arbitration agreement by reference may also constitute a valid arbitration agreement.<sup>24</sup> Furthermore, modern technologies have necessarily widened the “writing requirement” of the arbitration agreement to include exchange of emails, telefax or other modern methods of communication. These solutions are also incorporated in Serbian Law on Arbitration (Art. 12) and FTCA Rules (Art. 13).

Nevertheless, the tendency towards alleviating the rigidity of requirement for the written form of the arbitration agreement is characteristic for the contemporary arbitration law. Such tendency is the result of the needs of business relations, which, under the conditions of developed information technology and electronic communications,

impose the speed and efficiency in the execution of business relations, and yet open the space for introduction of new, simplified forms of conclusion of arbitration agreements, particularly through the means of electronic communication. Solutions contained in the UNCITRAL Model-law, following the amendments of 2006, are the result of such tendency. The new solution of the Model-law in option I maintains the requirement for a written form of the arbitration agreement,<sup>25</sup> but this requirement has been drastically alleviated by the definition that a written form exists in any event when the content of the arbitration agreement is recorded in any form, whether or not the arbitration agreement or contract was concluded orally, by conduct, or by other means.<sup>26</sup> Moreover, the new solution in the Model-law provides for a series of different forms of conclusion of the arbitration agreement by means of electronic communication.<sup>27</sup> Finally, the amended Model law goes even that far to provide in Option 2 of Art. 7 a complete disregard of written form requirement. Serbian Law did not incorporate these recent trends as to the form of arbitration agreement, as the Law on Arbitration was enacted one month prior to publication of the amendments to the UNCITRAL Model law in 2006. Nevertheless, one can safely conclude that even if timing was different it is highly unlikely that Serbia would opt for the complete abolishment of written form requirement, as the Option II of Art. 7 of UNCITRAL Model law provides for. This is because the written form of the arbitration agreement still serves many important functions such as alerting the parties to the significance of this agreement by which they are giving up their right to seek legal protection before the state court, providing adequate proof of an arbitration agreement which is a prerequisite for the commencement of arbitration dispute resolution mechanism. Furthermore, it should be noted that the comments made by other governments (e.g. Italy, Belgium, France, Austria etc.) when the text of the 2006 Model Law was drafted clearly suggest that this option does not enjoy full and unanimous support on global scale [7, p. 56].

<sup>23</sup> See Art. II(2) of the New York Convention, Art. I(2) of the European Convention, Art. 178(1) of the Swiss Federal Code on Private International Law, etc. While, to the best of our knowledge, there are no cases in the recent FTCA history where jurisdiction of the FTCA was constituted on the basis of the parties' agreement made at the hearing, there are several cases where the jurisdiction of the tribunal was based on the fact that the respondent entered into discussion on the subject-matter of the dispute and did not contest FTCA's jurisdiction (e.g. the awards Nos. T-2/94 of 29 July 1996 and T-23/97 of 15 April 1999).

<sup>24</sup> Article 7(6), Option I of the UNCITRAL Model-law states: “The reference in a contract to any document containing an arbitration clause constitutes an arbitration agreement in writing, provided that the reference is such as to make that clause part of the contract.” Conclusion of arbitration agreement by reference was very common in the old Yugoslavia since contracts concluded between Yugoslav and foreign companies regularly referred to the general terms of delivery of goods agreed upon by Commercial Chamber of Yugoslavia and commercial chambers of Yugoslav trading partners – Poland, DR Germany and SSSR, which all contained an arbitration clause calling for jurisdiction of the arbitration court at the chamber of commerce of the respondent's country. The jurisdiction of the FTCA was never contested when constituted on this basis.

<sup>25</sup> Art. 7(2) of the UNCITRAL Model-law.

<sup>26</sup> Art. 7(3) of the UNCITRAL Model-law.

<sup>27</sup> Art. 7(4) of the UNCITRAL Model-law.

### Arbitrability

In order for the arbitration agreement to be valid, its subject-matter has to be capable of settlement by arbitration (objective arbitrability) and it has to be concluded between the parties which have the capacity to agree on the jurisdiction of an arbitration (subjective arbitrability). This means that certain types of disputes are not permitted to be decided by the chosen arbitral tribunal, notwithstanding the agreement of the parties in that regard.

In general terms, the scope of objective arbitrability is defined by a rule allowing parties to agree on arbitration only for matters which are not governed by mandatory rules (the rules that the parties cannot derogate from). A broad interpretation of the objective arbitrability is particularly well elaborated in the Swiss Federal Code on Private International Law, which provides that all pecuniary claims may be submitted to arbitration (Art. 177). Other legal systems usually define arbitrability by stipulating that the disputes related to the rights that the parties may freely dispose of may be submitted to arbitration. Another seldom used method is the definition of the scope of objective arbitrability through the general clause, which is then accompanied by a list of types of claims which may not be submitted to arbitration. Finally, the scope of objective arbitrability may be defined through a *numerus clausus* provision listing the types of claims which may be submitted to arbitration. In the case-law of the international commercial arbitrations, the issue of objective arbitrability was particularly discussed in the context of competition, intellectual property, UN embargos, or bankruptcy [11, pp. 345-373], [1, p. 125 *et seq.*]. Under the provisions of Serbian law, the parties may agree to an arbitration for resolution of their pecuniary disputes concerning rights they can freely dispose of, except for the disputes that are reserved to the exclusive jurisdiction of the courts (Art. 5 LA), e.g. disputes over property rights in real estate located in Serbia and disputes over lease of such real estate.<sup>28</sup>

In the widest sense, the subjective arbitrability means that the arbitration agreement, in order to be valid, has to be concluded between the parties which have the capacity to agree on the jurisdiction of an arbitration. The matter

<sup>28</sup> Art. 56 of Serbian Act on Private International Law.

of subjective arbitrability is primarily discussed within the context of conclusion of the arbitration agreement by the States and other legal persons of public law. As for the question whether a State may conclude arbitration agreements, the prevailing position in the contemporary arbitration legal doctrine and practice is that a State, government, or other person of public law may agree on arbitration in full scale if the arbitration agreement pertains to the private legal relation. This is also specifically provided in Art. 5 of the Serbian LA.

### Autonomy of the arbitration agreement

The principle of autonomy of the arbitration agreement has been widely accepted in legal doctrine and arbitral practice [23, p. 249 *et seq.*], [2], [13, p. 499], [25, pp. 582-583], [14, pp. 52-54], [18, pp. 535-544]. The most important legal consequence of this principle is reflected in the independence of the arbitration clause in relation to the principle agreement. It means that the existence, validity, and legal force of the clause do not depend on the legal destiny of the agreement in which it is contained. The other important consequence of the principle of autonomy of the arbitration agreement is reflected in a possibility that the arbitration agreement can be subject to the law different from the law applicable to the principle agreement [17, pp. 77-86]. Finally, the principle of autonomy of the arbitration agreement is related to the principle “*compétence-compétence*”, which authorizes the arbitration to rule on its own jurisdiction.<sup>29</sup>

The principle of autonomy of the arbitration agreement is explicitly envisaged by the UNCITRAL Model-law<sup>30</sup> and, as a consequence, is contained in the vast majority of modern national laws in the area of arbitration, including Serbian Law on Arbitration (Art. 28). On the other hand, in the countries where the laws do not contain an explicit legal provision of this principle, the principle of autonomy of the arbitration agreement is applied by the jurisprudence [19, p. 219 *et seq.*]. A fairly large number

<sup>29</sup> See Art. 28 of the LA; Arts. 14 and 18 of the FTCA Rules.

<sup>30</sup> Article 16(1) of the UNCITRAL Model-law stipulates that “the arbitration clause which forms part of a shall be treated as an agreement independent of the other terms of the contract. A decision by the arbitral tribunal that the contract is null and void shall not entail *ipso jure* the invalidity of the arbitration clause.”

of the arbitration rules also adopt the principle of the autonomy of the arbitration agreement. The UNCITRAL Arbitration rules explicitly provide for this principle,<sup>31</sup> as well as the Rules of the ICC Arbitration Court,<sup>32</sup> rules of the FTCA<sup>33</sup> and many more.

## Arbitrators

### Appointment of arbitrators

It is often emphasized that one of the advantages of arbitration over state court is the freedom given to the parties in selecting a person(s) who will resolve their dispute [20, p. 6]. According to comparative arbitration laws and rules, parties are given a wide discretion with respect to the appointment of arbitrators both in terms of the qualifications of arbitrators needed and in terms of the procedure for the appointment of arbitrator(s). In the absence of parties' agreement, national laws or arbitration rules offer various flexible solutions in this regard.<sup>34</sup> In practice, in case of three-arbitrator panels, usually one party appoints one arbitrator, the other appoints the second, and the two appointed arbitrators agree on the third – presiding arbitrator.

### Nationality and qualifications of arbitrators

According to the Serbian Law on Arbitration and the pertinent FTCA Rules, any natural person having contractual capacity, irrespective of his/her nationality, may act as an arbitrator in Serbia, provided that he/she possess the qualities agreed upon by the parties.<sup>35</sup>

31 Art. 21(2) of the UNCITRAL Arbitration Rules.

32 Art. 6(4) of the ICC Rules.

33 Art. 14 of the FTCA Rules.

34 See Arts. 16-26 of the LA, Arts. 20-28 of the FTCA Rules.

35 The only exception to this rule regards a person sentenced to an unsuspended sentence of imprisonment while the consequences of the conviction are in effect (Art. 19 of the LA). Furthermore, the FTCA Rules require that a sole arbitrator, or a presiding arbitrator in three-arbitrator panels must be selected from the List of Arbitrators maintained by the FTCA. The List currently contains the names of 27 persons from Serbia and 16 persons from abroad, coming from neighboring countries, UK, Austria, Germany, Switzerland, France, Russia and elsewhere. The professional profile of these arbitrators is limited to persons with legal education coming from universities, private practice and corporate environment. However, legal education of an arbitrator is not a prescribed requirement under the FTCA Rules. Previous Lists of the FTCA, including the very first one, contained names of people with different professional backgrounds, including engineers and economists.

In some cases, the contracting parties define the desired qualifications of arbitrators in the arbitration agreement. Thus, it is sometimes envisaged that arbitrators (or only the presiding arbitrator) have to be “professional lawyers” or “highly qualified lawyers in the field of international commerce”, or to have “long-lasting experience in the trade”, or perhaps that the presiding arbitrator “cannot be from the State where one of the parties has its seat”, that is, the arbitrator has to come from a “third country”. On the other hand, in complex disputes related to some specific areas, the contracting parties, in the arbitration clause, may list a series of qualities, which arbitrators have to have [19, p. 196].

### Number of arbitrators

As a rule, the contracting parties may agree on the number of arbitrators. However, in many national laws, including Serbia<sup>36</sup>, the odd number of arbitrators is a mandatory requirement. This is understandable given that the award has to be made by a majority decision of the arbitrators. If the parties fail to agree on the number of arbitrators, their number will be determined pursuant to the rules of institutional arbitration, by the relevant appointing authority or the court. For example, according to the ICC Rules if the parties fail to agree on the number of arbitrators, the Arbitration court will appoint a single arbitrator, except if it finds that the dispute is of such nature that it requires the appointment of three arbitrators (Art. 8). On the other hand, the FTCA Rules determine the number of the arbitrators depending on the value of the dispute. Unless otherwise agreed by the parties, any dispute over USD 70,000 shall be decided by a panel of three arbitrators, and any dispute of a smaller value by a sole arbitrator (Art. 20).<sup>37</sup> Although three-arbitrator panels have become a norm in the arbitration practice, a decision on the number of arbitrators (one, three

36 Art. 16(2) of the LA.

37 The FTCA archives reveal that the value involved in cases decided by the FTCA varies from several thousands of euros to several millions of euros. Approximately one half of these cases was decided by sole arbitrators, who were, in most cases, appointed by the Chairman of the FTCA since the parties failed to agree on an arbitrator. The same trend has been noted in appointing the Chairman of the arbitral tribunal, since party appointed arbitrators rarely agree on the Chairman of the tribunal.



or more) should not be taken lightly, as it may significantly affect the costs of the proceedings.<sup>38</sup>

### Independence and impartiality of arbitrators

The principle of independence and impartiality of arbitrators, one of the fundamental principles related to the personality of the arbitrator, has been widely accepted in the comparative law. This principle is explicitly set out in the UNCITRAL Model-law, as well as in the majority of national laws on arbitration and rules of the institutional arbitrations [17, p. 171 *et seq.*], including Serbia.<sup>39</sup>

In line with the requirement of arbitrator's independence and impartiality, there are some restrictions on arbitrators regarding persons closely connected to the parties in dispute. Hence, employees of the parties, members of their governing bodies and their permanent associates may not be appointed as arbitrators in disputes in which those parties are involved. Also, arbitrators may not act as party's counsels or legal advisors (Art. 24 FTCA Rules). More detailed and topic-specific rules on prevention of conflicts of interest in international commercial arbitration are provided by the International Bar Association [12], and are often considered by arbitrators in international arbitration proceedings.

### Challenge procedure

Grounds for disqualification of arbitrator by the rule pertain to his/her independence and impartiality, as well as the lack of qualities or qualifications agreed upon by the parties. Thus, under the UNCITRAL Model-law, an arbitrator may be challenged only if circumstances exist that give rise to justifiable doubts as to his impartiality or independence, or if he does not possess qualifications agreed to by the parties. A party may challenge an arbitrator appointed by him, or in whose appointment he has participated, only for reasons of which he becomes aware after the appointment has been made (Article

12(2)). The same rules are contained in the Serbian Law on Arbitration (Arts. 23 and 24).

Unless the parties have agreed otherwise, the decision on the challenge is to be made by the competent court (Art. 24(3) LA). If the FTCA is in charge of the dispute, the FTCA Board decides on the challenge after giving the arbitrator concerned the opportunity to comment upon the challenge. The decision on challenge does not have to include a statement of reasons (Art. 27(3) FTCA Rules).

Unlike the UNCITRAL Model Law on International Commercial Arbitration neither Serbian Law on Arbitration nor the FTCA Rules contain a provision entitling a party to request the court to decide on the challenge of arbitrator, where the arbitral tribunal has rejected such request. Hence the decision on the challenge is final.

### Seat of arbitration

Seat of arbitration has a multifold relevance in disputes before the international commercial arbitration. First of all, the law of the seat of arbitration (*lex arbitri*) often sets the criteria for validity of the arbitration agreement. Furthermore, the application of the procedural law of the country of the seat of arbitration to the arbitration proceedings is, as a rule, subsidiary. This law applies in the absence of the procedural law chosen by the parties (in terms of the institutional arbitration, this rule applies to the matters not defined in the rules of arbitration, unless the parties envisaged a different procedural law). In addition, the seat of arbitration is relevant, on the one hand, as the courts in the country of the seat of arbitration may be required to play an important role in the proceedings as to the constitution of the tribunal, final decision on the validity of arbitration agreement etc., whilst, on the other, it is the law of the seat that provides for important limitations on the court intervention in arbitration proceedings. Moreover, the seat of arbitration is important in determining the "nationality" of the arbitration award, as well as the procedure for recognition and enforcement. Last but not least, the seat of arbitration is of a special relevance for the control of the arbitration award, considering that the court of the seat of arbitration is competent for ruling on the request for setting aside of the award. In the absence of

38 E.g. The costs of proceedings in a case submitted to ICC arbitration with a one million dollar claim, the arbitrator's fees will, on average, amount to 39.000 dollars, whereas the arbitrators' fees in the three-arbitrator panel will amount to 117.000 dollars. See <http://www.iccwbo.org/products-and-services/arbitration-and-adr/arbitration/cost-and-payment/cost-calculator/>.

39 Art. 19(3) of the LA.



parties' agreement, the seat of arbitration will be defined by institutional arbitration<sup>40</sup> and/or arbitration panel or sole arbitrator in *ad hoc* arbitration.

The vast majority of the sources of arbitration law give the freedom to the parties to agree on the seat of arbitration. However, in absence of such choice, there are subsidiary rules which help determining the seat of arbitration. Serbian LA provides that in case that the parties did not agree on the seat of arbitration, the arbitral panel would determine the seat of arbitration giving due regard to the circumstances of the case and suitability of the seat of arbitration for the parties. If the parties opted for institutional arbitration, seat of arbitration will be determined pursuant to its rules. Finally, if the seat of arbitration cannot be determined in any of the previously stated ways, the seat of arbitration will correspond to the place where the award was made (Art. 34 LA).

The above-mentioned relevance of the seat of arbitration is definitely an important element to be considered when drafting the arbitration agreement. The quality of legislative setting in which the arbitrators are conducting the proceedings and making the award (in the country of the seat of arbitration) is to be treated with equal importance as the quality of arbitrators who are given the mandate to resolve the dispute. Many of the advantages of arbitration can be easily jeopardized if the seat of arbitration is not carefully selected. Thus, it is not surprising that many businesses nowadays choose arbitration with seat in Switzerland (even where rules of non-Swiss institutions apply),<sup>41</sup> as the Swiss arbitration law is regarded as one of the laws of the highest quality and so is the service of the Swiss judiciary in assisting the arbitration. Furthermore, the general attitude towards arbitration in Switzerland is portrayed as an arbitration-friendly environment, and the jurisdiction of the courts deciding on setting aside of the award is vested with the supreme judicial authority – the Swiss Federal Supreme Court.

<sup>40</sup> See Art. 14 of the ICC Rules.

<sup>41</sup> According to 2010 Queen Mary arbitration survey, the four most popular arbitration venues are London, Paris, New York and Geneva. On the other hand, respondents have the most negative perception of Moscow and mainland China as seats of arbitration [26].

## Confidentiality and language of the proceedings

Confidentiality is commonly considered as an essential feature of arbitration<sup>42</sup> and an important reason why business entities opt for arbitration as a dispute resolution mechanism [20, p. 6]. Unlike the court proceedings, arbitration proceedings are held behind the closed doors, unless the parties agree otherwise (which in essence rarely happens in commercial arbitration). This enables the parties to keep their business practices, trade secrets, intellectual property as well as proceedings that could negatively impact on their reputation, completely private.

The FTCA, just like many other arbitral institutions, ensures the confidentiality of the proceedings (Art. 37(3) FTCA Rules). The confidentiality of the proceedings usually extends to confidentiality of the award. Consequently, as a rule, the full text of the FTCA award may be published only with consent of the parties. However, the Chairman of the FTCA may authorize the publication of the award in periodicals of professional and doctrinal character without disclosing the names of the parties or information that may be damaging to the interests of the parties (Article 51(3) FTCA Rules).<sup>43</sup>

As for the language of the proceedings, the modern arbitration laws provide that the parties may agree on the language or languages to be used in the arbitral proceedings either in their contract or subsequently (Art. 35 LA). This is an important consideration when starting the arbitration procedure, as it impacts the language in which the statement of claim needs to be submitted, the selection of arbitrators, and the hiring of legal representatives in arbitration. In the

<sup>42</sup> The importance of preserving confidentiality of the proceedings as a landmark principle of arbitration law was highlighted in the award No. T-26/97 of 11 October 1998, where the Respondent's request to notify the third party of the ongoing proceedings was rejected by the Tribunal. The Tribunal stated: "The confidentiality of the arbitral proceedings is one of the most important reasons why business people opt for resolution of their disputes before arbitration courts. [...] Third parties cannot be given an opportunity to attend the arbitral proceedings especially if one of the parties objects, as is the case here."

<sup>43</sup> Consequently, some abstracts of the FTCA award have been published in the FTCA's own journal on arbitration practice – Arbitraža and similar periodicals. Also, recently, some of the FTCA awards have been published both in Serbian and English at the Pace University web-site (after being anonymized first) as a result of participation of the University of Belgrade Faculty of Law at the Queen Mary translation project in order to enable easier access to the global caseload on application of the UN Convention on Contracts for International Sale of Goods.

absence of parties' agreement, the arbitral tribunal will decide upon this issue, taking into account the place of arbitration and the language used by the parties in their legal relationship. Permanent arbitral institutions may regulate the issue of language of the arbitral proceedings by their rules, e.g. absent the agreement of the parties, the FTCA arbitration proceedings are conducted in Serbian language.<sup>44</sup>

### Law applicable to the arbitration proceedings

The comparative arbitration law has widely accepted the principle according to which the parties may freely agree on the rules applicable to the arbitration proceedings. Such freedom is uncommon before the state courts and is rightfully listed as one of the major advantages of arbitration in comparison to court adjudication.

Where the parties have conferred jurisdiction to an arbitral institution, the rules of such institution apply to the disputes brought before them. On the other hand, in the arbitration clauses which call for *ad hoc* arbitration, the UNCITRAL Arbitration rules (as model rules) are often agreed upon. In the absence of the parties' agreement as to a specific issue of arbitral procedure, the law of the seat of arbitration governs the issue.

Serbian Law on Arbitration, following the provision of UNCITRAL Model law, gives the freedom to parties to agree on the applicable procedural law. Pursuant to the Law, the parties may freely agree on the procedural rules which will be applied by the arbitration court or refer to certain rules, and if the arbitration is international, the parties may agree on the application of a foreign procedural law. In the absence of the agreement by the parties, the arbitration court conducts the proceedings in a way which it deems appropriate. The only limitation refers to the requirement that the arbitration proceedings have to be in line with the fundamental principles of the Law,<sup>45</sup> such as the principles of party equality and the principle of the right to be heard (each party with an opportunity to present his case and evidence, as well as

to state his position with respect to acts and proposals of the opposing party).<sup>46</sup>

### Law applicable to the merits

Just as the parties are given the freedom to choose the rules of procedure in arbitration proceedings, they are given the freedom to choose the applicable law or rules of law to the merits of their case. This is another landmark of arbitration proceedings, also recognized in Serbian law (Art. 50(1) LA). The most important factor in choosing the applicable law in international business practice is the perceived neutrality and impartiality of the legal systems, the appropriateness of the law for the type of contract and familiarity with and experience of the particular law [26, p. 11]. On the other hand, the business transactions and their logics are often tailored to fit specific needs of a market and thus applicable law. Arbitration provides a forum where the choices made by the parties are fully upheld and enforced, ensuring that the initial business reasoning behind the parties' preference is brought to life within the dispute.

In the absence of parties agreement, the arbitral tribunal in international arbitration shall determine the law or rules on the basis of conflict of laws rules it find appropriate (Art. 50(3) LA, Art. 48(2) FTCA Rules). In any event, they are required to pay due regard to the terms of the contract and trade usages that may be applicable to the transaction. Unlike before state courts, the award may be made exclusively on the basis of equity, if the parties have expressly given such power to the arbitrators (Art. 49(2) LA; Art. 48(4) FTCA Rules).<sup>47</sup>

### Arbitration award

The arbitration tribunal rules on the merits of the dispute within the final arbitration award. According to the FTCA

44 According to FTCA statistics, in the period from 2006 to 2011 English was used as the language of the proceedings in 5 cases.

45 See Art. 32 of the LA.

46 Art. 33 of the LA.

47 According to 2010 Queen Mary arbitration survey, 81% of corporations have never used determination *ex aequo et bono* or as *amiable compositeur*, while 16% of them stated that they use them often [26]. In the recent past, there is only one FTCA award where the arbitrators were given the authority to decide the case on the basis of equity (the FTCA award No. T-25/98-27 of 1 March 2001). This authorization did not stem from the arbitration agreement itself but from the subsequent parties' agreement made at the last hearing.

Rules, arbitral proceedings shall be completed within a year from the date of constitution of the tribunal or appointment of the sole arbitrator (Art. 44). The final award needs to be made within the period of 60 days from the date of the last hearing or the date on which the last in camera meeting of the tribunal was held (Art. 49(4) FTCA Rules).<sup>48</sup> From a purely business perspective, the time limits imposed by the FTCA Rules aim not only at minimizing the transaction and dispute costs, but provides commercially oriented parties with a quick resolution of the dispute and thus a foreseeable perspective on potential gains and losses in that regard. Compared to domestic judicial proceedings, where litigation disputes usually stretch for over two years before the court of first instance, and potentially year and a half before the second instance court, arbitration comes not as an inevitably faster mechanism, but also as more cost-effective.

In addition to the final award, the arbitration tribunal may deliver a partial or interim award. Partial award resolves finally one of several claims or a part of the claim. On the other hand, an interim award rules on the basis, but not on the value of the claim. If the parties manage to reach settlement in the course of the proceedings, the arbitration court will make an award based on the settlement upon the request of the parties, unless the effects of settlement are in contravention with the public policy. If the award is to be made by a panel, it must come as a result of majority vote, unless the parties agreed otherwise. The arbitration award is delivered in writing, signed by the arbitrator(s) who made it, and it contains the introduction, date and place of delivering, operative part containing the decision on the subject-matter of the dispute, a decision on costs of the proceedings, and statement of reasons, unless the parties provided in their agreement that the award would not contain the statement of reasons. The arbitration court may deliver, upon a request of a party, an additional award on the requests presented during the arbitration proceedings, which were not ruled upon in the arbitration award.<sup>49</sup>

48 In the recent years, the FTCA has shown an excellent record of efficiency in dispute resolution. The average time for rendering of an award has been reduced to less than one year from the time of constitution of the tribunal, whereas in most cases this time period was not longer than 6 months. According to 2006 Queen Mary arbitration survey, in the majority of the cases brought before the ICC and ICDR, an award is rendered within 18 months from filing a request for arbitration [20].

49 See Arts. 48-56 of the LA.

The arbitration award, regardless of whether it was made by institutional or ad hoc arbitration, has the force of a final court decision. As a rule, there is only one recourse against the final domestic arbitration award, and that is the application for setting aside an award.<sup>50</sup> Such application needs to be filed within three months from the day on which the party making the application had received the award. The decision on the request for setting aside is made by the competent court in the seat of arbitration. This court may set aside only the domestic arbitration award. Reasons for setting aside the arbitration award are limited to the control of correctness of the arbitration proceedings, and they do not refer to the merits of dispute.<sup>51</sup> According to information obtained from the FTCA Secretariat, such recourse is rarely taken against FTCA awards<sup>52</sup> and, more importantly, exceptionally

50 According to 2006 Queen Mary arbitration survey, 91% of corporations rejected the idea of including an appeal mechanism in international arbitration [20].

51 These reasons, according to Serbian law and as transplanted from the UNCITRAL Model law include the following: 1) the arbitration agreement is not valid under the law determined by the parties' agreement or under the law of Serbia, unless the parties agreed otherwise; 2) the party against whom the arbitral award was made was not given proper notice of the appointment of an arbitrator or of the arbitral proceedings or was otherwise unable to present his case; 3) the award deals with a dispute not falling within the terms of the arbitration agreement or contains decisions on matters beyond the scope of that agreement. If it is found that the part of the award going beyond the scope of the arbitration agreement may be separated from the remaining part of the award, only that part of the award may be set aside; 4) the composition of the arbitral tribunal or the arbitral proceedings was not in accordance with the arbitration agreement or with the rules of the permanent arbitral institution which was entrusted with administration of the arbitration, unless such agreement was in conflict with a provision of this Act from which the parties cannot derogate, or, failing such agreement, the composition of arbitral tribunal or arbitral proceedings was not in accordance with the provisions of this Act. In addition, unlike the Model Law, Serbian law lists the following reason for setting aside of the arbitral award – if the award was based on a false statement of a witness or expert or on a forged document or the award results from a criminal act of an arbitrator or a party, if these grounds are proven by a final judgment. The court shall set aside the award also, if it finds that: 1) the subject matter of the dispute is not capable of settlement by arbitration under the law of Serbia, or 2) the effects of the award are contrary to the public policy of Serbia (Art. 58 LA). The latter two reasons for setting aside of the award are evaluated by the court *ex officio*, whereas the former are evaluated only upon the request of the party.

52 The courts in Serbia before which the set aside procedure of the FTCA award is initiated are not obliged to inform *ex officio* the FTCA Secretariat of such proceedings. The information available at the FTCA Secretariat is thus only sporadic and non-systematic. According to information available in the period from 1992 to 2006, only 25 proceedings for setting aside the FTCA award have been initiated, out of several hundreds of awards that were made in the same period (the FTCA tribunals have, in average, made 20-30 awards per year in the mentioned period).

granted.<sup>53</sup> On the other hand, a foreign arbitral award, unless voluntarily performed, which is most often the case,<sup>54</sup> is subject to recognition and enforcement mechanism which is set by the globally accepted rules found in the 1958 Convention on Recognition and Enforcement of Foreign Arbitral Awards (the New York Convention), which has now been ratified by 149 states, including both Serbia and all of the world's major trading nations.<sup>55</sup> This Convention binds the ratifying states to recognize not only valid arbitration agreements and decline court jurisdiction when faced with one, but also to recognize arbitral awards as binding and enforce them in accordance with the rules of procedure of the territory where the award is relied upon (Art. III NYC). The recognition and enforcement of the arbitral award may be refused only for limited set of reasons, mirroring the reasons listed for setting aside the

53 According to findings of Prof. Stanivuković, who has conducted a research of seven Serbian judgments made upon application for setting aside of an FTCA award, in only one case has such an application been accepted and the award set aside [24, pp. 167-201].

54 According to 2008 Queen Mary arbitration survey, 84% of the participating corporate counsel indicated that in more than 76% of their arbitration proceedings, the non-prevailing party voluntarily complied with the arbitral award [21].

55 Full list of countries that have ratified the New York Convention is available at: [www.uncitral.org](http://www.uncitral.org).

award.<sup>56</sup> According to relevant arbitration surveys, most corporations revealed no major difficulties in achieving recognition and enforcement of their arbitral awards. As a matter of fact, most corporations were able to enforce arbitral awards within one year and usually managed to recover more than 75% of the value of the award [21, p. 3].

## Cost of arbitration

It has often been pointed in the past that arbitration is less costly than adjudication in court. This, on its face, is no longer true, at least when it comes to international arbitration, as costs of arbitration services have significantly increased in the recent past.<sup>57</sup> However, the cost-effectiveness of arbitration is still not negligible, as arbitration provides for a 'one-stop shopping', i.e. it eliminates the need for a two or three tier dispute resolution mechanism (appeal excluded) [1, p. 35]. Additional cost concerns come from the different 'prices' of arbitration services of different

56 See Art. V of the New York Convention; Art. 66 of the LA.

57 The findings of the 2006 Queen Mary arbitration survey show that international arbitration is at least as expensive as transnational litigation for medium and smaller size cases. In larger, more complex cases, international arbitration may represent better value for money [20].

**Table 3: Overview of arbitration fees of selected arbitral institutions in relation to the value of the claim**

Amount in Dispute in USD	Arbitral institution	One arbitrator - average - in USD	Three arbitrators - average - in USD	Adm. fees (including reg. fee) in USD	Total w. one arbitrator in USD	Total w. three arbitrators in USD
100,000	ICC	10,060	30,179	5,365	15,425	35,544
	SCC	8,853	19,477	3,952	12,805	23,429
	SWISS	8,000	20,000	5,000	13,000	25,000
	ICAC	3,330	9,990	7,770	11,100	17,760
	VIAC	6,006	16,516	3,900	9,906	20,416
	DIS	6,718	17,053	1,959	8,677	19,012
	FTCA			259 reg. fee + 8,378		8,637
500,000	ICC	26,924	80,771	14,165	41,089	94,936
	SCC	20,865	45,903	10,478	31,343	56,381
	SWISS	35,000	87,500	5,000	40,000	92,500
	ICAC	7,080	21,240	16,250	23,330	37,490
	VIAC	17,712	48,708	8,255	25,967	56,963
	DIS	17,116	43,451	6,719	23,835	50,170
	FTCA			259 reg. fee + 16,101		16,360
1,000,000	ICC	39,379	118,136	21,715	61,094	139,851
	SCC	31,112	68,445	15,750	46,862	84,195
	SWISS	55,834	139,584	5,000	60,834	144,584
	ICAC	9,180	27,540	21,420	30,600	48,960
	VIAC	28,652	78,793	12,271	40,923	91,064
	DIS	27,359	69,451	12,669	40,028	82,120
	FTCA			259 reg. fee + 23,601		23,860
10,000,000	ICC	113,284	339,851	57,515	170,799	397,366
	SCC	88,794	195,347	33,511	122,305	228,858
	SWISS	156,445	391,111	26,667	183,112	417,778
	ICAC	22,380	67,140	52,220	74,600	119,360
	VIAC	85,254	234,448	25,200	110,454	259,648
	DIS	88,499	224,650	38,463	126,962	263,113
	FTCA			259 reg. fee + 58,038		58,297



arbitral institutions. As Table 3 confirms,<sup>58</sup> there might be significant differences when it comes to this issue. e.g. arbitrating a case before ICC Court of Arbitration or Swiss Chambers may be more than three times expensive than arbitrating a claim before Serbian FTCA or Russian ICCA, and almost twice expensive than bringing a claim before DIS or VIAC. For this reason, it is our firm view that this element of arbitration institution, and not only its reputation, rules or seat of arbitration, should be carefully considered when conferring a jurisdiction to a specific arbitral institution. Choosing one arbitration institution over the other, if significantly more costly, may impose an unnecessary financial burden on the parties or even prevent a party from filing a claim if unable to make the advance on costs.

The abovementioned costs are only the costs of the arbitration proceedings and do not include legal fees that may be charged by the party's attorney representing the case before arbitration. These costs contribute immensely to the overall costs of arbitration,<sup>59</sup> and may also vary greatly depending on the law firm selected, a decision which may be impacted not only by the chosen seat of arbitration (parties usually opt for lawyers situated in the seat of arbitration), but also by the agreed upon applicable law and language of the proceedings. These are also important factors which should, although rarely are, considered when agreeing to arbitration, as these clauses are often referred to as 'midnight clauses' since their stipulation usually comes at the end of the exhausting negotiation process.

Finally, when choosing the proper dispute resolution venue, it is important to pay due regard to provisions of the rules applicable to arbitration proceedings which set

the allocation of the costs of the proceedings amongst the parties to dispute. While it is often the case that the allocation as per 'success in dispute' is provided, this may not always be the case.<sup>60</sup> This also should bear prevalence in making the right choice of the institution best suited to take upon the case that might result if the contract ends with a dispute instead of a mutual benefit.

## Conclusion

It has been demonstrated that most of the advantages of arbitration as dispute resolution mechanism stem from the fact that arbitral dispute resolution gives great leeway to party autonomy on the one hand, while on the other, it ensures both the confidentiality of the proceedings and effectiveness of the final award. The parties are given the opportunity to tailor the dispute resolution mechanism as they see fit, subject to few mandatory provisions and fundamental principles of the applicable law on arbitration. In particular, the parties are given the freedom to choose the arbitrators, seat of arbitration, language of the proceedings, rules of proceedings as well as the applicable substantive law. The selected arbitrators need not to be lawyers and are usually experts in the subject matter of the dispute, whilst at the same time their independence and impartiality is ensured by relevant applicable rules and laws. The choice of law made by the parties as well as prevalence to application of trade usages and standards applicable in their line of business can only be fully upheld by professional who understand the core of the business disputed in arbitration. It is precisely why the freedom of the parties to compose an expert oriented panel of arbitrators with relevant experience in the field of trade to which the dispute is attached can insure not only expedite procedure but a professional and fully informed award.

Independence of arbitration proceedings from national courts further emphasizes the advantages of arbitration

58 The information provided in this table is based on the FTCA Scale of Costs and Fees, DIS Cost Calculator (<http://www.dis-arb.de/en/22/costcalculator/overview-id0>) and a 2013 report prepared by Louis Flannery and Benjamin Garel [10]. The further findings of this survey show that the most expensive institutions in 'small cases' (up to USD 100 million) become more affordable in 'big cases' (worth USD 500 million and USD 1 billion), whilst the more affordable centers in 'small cases' become the most expensive in 'big cases', e.g. CIETAC, which is amongst the cheapest arbitral venues for resolution of the small cases, in cases with the amount in dispute of USD 500 million charges USD 2,4 million and thus qualifies for the most expensive centre – more than four times expensive than the Swiss Chambers!

59 According to 2006 Queen Mary arbitration survey, in 64% of the cases, attorneys' fees were greater than 50% of the total cost of arbitration [20].

60 Article 18 of the Serbian LA states that the parties will bear the costs of arbitration in the amount determined by the arbitral tribunal. Neither the Law on Arbitration nor the FTCA Rules contain a provision specifying how these costs are to be allocated amongst the parties. However, the practice of the FTCA reveals a common pattern in this respect – the final apportionment of the costs reflects the relative success of the parties. This rule applies to recovery of attorney's fees too, up to the amount that is deemed reasonable and justifiable.



in commercial and investment disputes that involve entities from different jurisdictions. Arbitration offers not only a more neutral forum, but also a more efficient and less formal setting as compared to national courts, with clear safeguards to the privacy and confidentiality of the proceedings. At the same time, the arbitration enables the parties to efficiently manage duration and the costs of the proceedings, which are the essential elements for consideration to business parties in every dispute. Last but not least, the fact that the arbitration award has the force of final and binding court judgment, and the fact that globally recognized mechanisms exist providing for facilitated and expedited enforcement of the international arbitration awards, perfectly rounds up the needs of businesses for an efficient, foreseeable, cost-effective, expert-reliable and enforceable dispute resolution mechanism.

For all these reasons, Serbian business community should pay special attention to arbitration as mechanism for dispute resolution, when deciding on a dispute resolution policy for their contracts. Serbian business people should not disregard the long tradition of arbitral dispute resolution in Serbia, the modern – UNCITRAL Model law compliant – legal framework and the expertise of local legal community in arbitration, as arbitration may significantly contribute to reduction of the transaction costs, enhancement of their overall performance and efficiency, and consequently to improvement of business environment in Serbia. Last but not least, the cost considerations should not be disregarded both when agreeing to arbitration in Serbia, and when agreeing to arbitration elsewhere, as well as the need for consulting an experienced arbitration practitioner in this decision-making process.

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## FINANCIAL REPORTING AND TAX IMPLICATIONS OF REAL ESTATE LEASE

### Finansijsko-izveštajne i poreske implikacije lizinga nekretnina

#### Abstract

Leasing is a very popular way of acquiring fixed assets, but despite its importance and presence the users of financial statements are often not in a position to realistically consider reporting entity's lease transactions and their impact on entity's financial position and performance. For years, current financial reporting for leases has been subject to many critiques. The reason for this primary lies in the fact that it left a lot of opportunities for manipulation during the lease classification into finance and operating leases, whereby the former must be reported on balance sheet, and the latter remains off it. Bearing in mind that operating leases have favourable effects on lessee financial statements and a number of accounting ratios, the practice of lessee to deliberately structure lease contracts to circumvent capitalisation of requirements was noticed. Attempts to reform lease accounting have been intensified and their termination might be expected in a form of a new approach, which would be based on the "right of use" model, hence leading to reporting of almost all leases on balance sheet. Nevertheless, numerous dilemmas complicate the process of achieving comprehensive solutions. It should be considered that radical changes in lease accounting could have effects on lease taxation as well, particularly in the countries where stronger relationship between financial and tax reporting exists. It is also important to recognize the effect of a new approach to lease accounting from the sale and leaseback perspective. This transaction is particularly attractive in the conditions of economic crisis, primary because it enables companies to achieve liquid assets. However, if leases are classified into operating ones, favourable effects on financial reporting seller/lessee should not be neglected either.

**Key words:** *real estate lease, finance lease, operating lease, lease accounting limitations, right of use model, leasing taxation, sale and leaseback*

#### Sažetak

Lizing je veoma popularan način pribavljanja stalnih sredstava, ali uprkos njegovom značaju i zastupljenosti, korisnici finansijskih izveštaja često su u poziciji da ne mogu realno da sagledaju transakcije lizinga izveštajnog entiteta i njihov uticaj na njegovu finansijsku poziciju i performanse. Tekući tretman lizinga u finansijskim izveštajima je već godina-ma predmet brojnih kritika, pre svega zbog činjenice da je ostavio dosta manipulativnog prostora prilikom razvrstavanja lizinga na finansijski i operativni, pri čemu se finansijski lizing obuhvata u bilansu stanja, dok to nije slučaj sa operativnim. Imajući u vidu da postojeći računovodstveni tretman operativnog lizinga ima povoljne efekte na finansijske izveštaje i neke računovodstvene pokazatelje korisnika lizinga, uočena je praksa tendencioznog strukturiranja lizing ugovora, na način da se izbegnu zahtevi kapitalizacije. Napori na reformisanju računovodstva lizinga su intenzivirani, i moglo bi se očekivati da uskoro dobiju epilog u vidu novog pristupa, baziranog na modelu „prava korišćenja“ koji bi uslovio prikazivanje gotovo svih lizinga u bilansu stanja. Brojne dileme ipak otežavaju donošenje konačnih rešenja. Treba imati u vidu da bi radikalne promene u računovodstvu lizinga mogle imati uticaja i na poreski tretman lizinga, pogotovo u zemljama gde postoji čvršća veza između finansijskog i poreskog izveštavanja. Važno je sagledati i uticaj novog pristupa računovodstvu lizinga iz ugla transakcija prodaje i povratnog lizinga. Ova transakcija je veoma atraktivna u uslovima ekonomske krize, pre svega jer omogućava kompanijama da dođu do likvidnih sredstava, ali nije zanemarljiv ni njen povoljan uticaj na finansijske izveštaje prodavca/korisnika lizinga, ukoliko se lizing razvrsta kao operativni.

**Glavne reči:** *lizing nekretnina, finansijski lizing, operativni lizing, ograničenja računovodstva lizinga, model prava korišćenja, poreske implikacije lizinga, prodaja i povratni lizing*

## Introduction

Leasing represents a very significant way of financing business. According to the research conducted by Leaseurope<sup>1</sup>, the share of European investment financed through leasing was 16% in 2008, while this share added up to 12% and 12.6% in 2009 and 2010 respectively. Preliminary results of the research for 2012 indicate that new leasing business in this year reached total value of €241 billion [10].

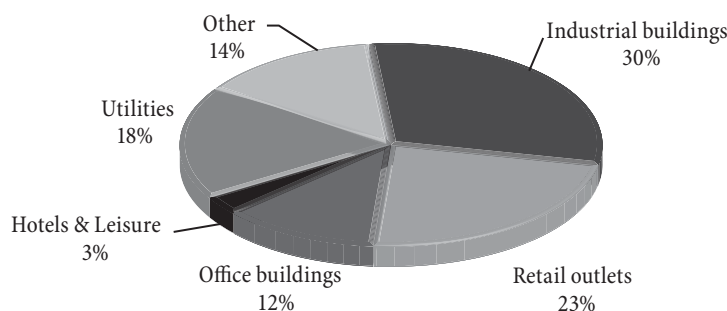
The segmentation of leasing market by asset types shows that in developed countries real estate is also often leased. Related statistics indicate that new real estate leasing volume in 2011 was €24.3 billion (the structure of these contracts by the real estate type is presented in Figure 1), whereas total outstanding leasing volume in 2011 reached €195.7 billion [11].

The popularity of real estate leasing was the result of its advantages when compared to other ways of financing. Leasing provides lessees with higher degree of flexibility in terms of responding to the changes in business surroundings, without making them limited by the ownership of assets, but rather giving them an opportunity to use free liquid assets that would otherwise remain limited on these positions. This way, the free liquid assets could be implemented in available and profitable projects that bear higher rate of return than interest rate that is kept in leasing, thus increasing the value of invested equity capital. Furthermore, leasing is a suitable source (and quite often the only one available) for financing the acquiring of fixed assets with newly established, small

and medium-sized enterprises (SMEs), as well as with all other potential clients with lower credit capacity.<sup>2</sup> A lessor keeps the ownership of the leased asset, which is another way that keeps him on a safe side. Therefore, a decision concerning financing is made not only based on the credit capacity of a client, but also on the degree of marketability of the leased asset. All this strongly makes an effect on the shortening of financing procedure and on the reduction of incurred transaction expenses. Thereby, a lessor is a specialized enterprise that can acquire the leased asset under favourable conditions and it can offer numerous services to a lessee: maintenance, servicing, technical and technological improvement, training staff of a lessee to use (properly) the leased asset etc.

The development of leasing led to its treatment in financial reports to be regulated by special International accounting standards (IAS), where the scope of leasing is based on “ownership” model and therefore a lease can be shown in balance sheet (financial lease) or it can remain off it (operating lease). Long-time implementation of this standard in practice led to worsening the quality of information in financial reports of lessees, because the criteria for lease classification are ignored and lease is inadequately presented as operating one, because in this manner the balancing of additional liabilities is avoided. In order to overcome this distortion created in the data, analysts usually resort to additional calculations and modify financial reports by treating all leases as financial ones. Practices like these ones unequivocally refer to inadequacy of previous way of lease reporting. For this reason, the

Figure 1: Share of new leasing volumes in 2011 by asset type



Source: [12, Fig. 10]

<sup>1</sup> Leaseurope brings together 44 member associations in 32 European countries representing the leasing, long term and/or short term automotive rental industries. It is estimated that Leaseurope represented approximately 92% of the European leasing market in 2011.

<sup>2</sup> Analysis of the lease use by SMEs showed that in 2010, 40% SMEs used lease and this was greater than their use of any other individual form of bank lending. The total amount of investment in fixed assets financed through lease was just over €100 billion [17].

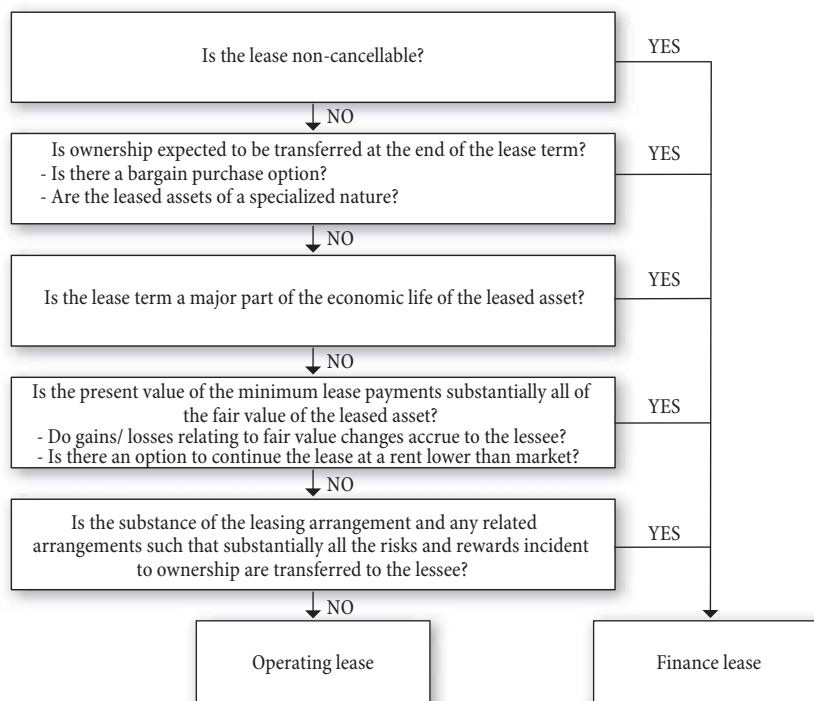
reform of lease accounting is in progress. One can expect that also operating lease (apart from short-term lease) will be included in requirements for lease capitalisation. The results of such a change will not be insignificant. According to the Pricewaterhouse Cooper’s benchmark study of a sample of approximately 3.000 listed companies it was shown that capitalisation of operating leases would lead to an average increase in entities’ interest-bearing debt of around 58%, the average increase in leverage (interest-bearing debt/equity) around 13% and the average increase in EBITDA around 18% [18].

Bearing in mind a current presence of these problems worldwide, as well as in Serbia, where in May, 2010 the law was passed which enabled real estate finance lease [24, Art. 4], this paper deals with financial reporting and tax implications of leasing and it is divided into several parts. In the first part we not only deal with ongoing requirements of financial reporting for leases, but also with related tax consequences. In the second part we analyse disadvantages of existing reporting model. In the third part we discuss possible directions and implications in the reform of lease accounting. The last part gives an insight into the attractiveness of sale and leaseback transactions.

### Current reporting environment: Finance vs. operating lease

Accounting division of leases into finance and operating leases was primarily based on the scope within which benefits and burdens of the asset ownership, i.e. the leased asset, are transferred to a lessee. The term “burdens”, in this sense, means losses that may occur as a result of economic and technologic changes and unused capacities, whereas the term “benefits” is defined as the possibility of setting up profitable businesses during the useful life of assets and as capital gains made by the increase of assets value, or by sale of its residual value. Finance lease means that a lessor transfers to a lessee each and every burden and benefit related to the ownership, whereby the right of ownership, may or may not be transferred upon the expiry of the contact period. All remaining lease deals fall into operating leases. Although, when interpreting these definitions accounting regulation prefers substance of transaction to the form of the contract, different circumstances may lead to the same lease to be classified differently by the two parties. Nevertheless, certain situations unequivocally pinpoint to the substance of

Figure 2: Guidelines to classifying a lease



Source: [1, p. 599]



contractual relationship, hence to the lease type as well. The criteria for classification of lease contract in terms of accounting needs are shown in Figure 2.

In balance sheet of a finance lessee, an asset (real estate, building or land), which is the leased asset and also the liability on the basis of leasing, is recognized. Asset recognition comes as a consequence of the fact that in accounting, as a rule, substance is always put at the first place rather than form. Looking from the lease contract perspective, although a lessee does not have the legal ownership of the asset acquired this way, both accounting recognitions of an asset and related liabilities stem from economic ownership that enables a lessee to acquire the benefits gained by using the real estate and also requires taking over burdens related to the ownership; all this in exchange for the liability to pay for the right of use with the amount that is approximately even fair value of real estate which is increased by an adequate financial compensation.

The amount initially recognized for an asset or liability is even “fair value of the given real estate or the present value of the minimum lease payments accounts if it is lower” [16, paragraph 20]. The minimum lease payments are those payments that are made during the lease period, that are requested or can be requested by a lessee, and that are increased by residual value of the leased asset at the end of the lease term guaranteed by a lessee or a party related to him. The present value of the minimum lease payments is estimated by discounting a total expected payment amount on lease basis, whereby the discount rate is used as the interest rate included in lease, or incremental borrowing rate<sup>3</sup>, if the interest rate included in leasing cannot be certainly determined.

In most cases, minimum lease payments refer to a total amount that a lessee pays to a lessor during the lease term, and also to an amount that contains the value of the leased asset increased by the lease provision (interest). This means that the present value of the minimum lease instalments that is gained by applying interest rate included in leasing equals to the difference between total amount

given by a lessee and a lease interest, i.e. the present value of the minimum lease payments equals to the value of the leased asset at the beginning of lease term. If the value of the leased asset that is charged by a lessor equals to the fair value of the asset, the present value of minimum lease payments will be equal to the fair value of the asset, which unequivocally determines the amount for initial recognition of the leased asset in lessee's balances.

Both real estate taken via a finance lease and the liability on these basis are recognised under the same amount (except in the case when direct expenses of a lessee incur at the beginning). This means that the liability on the lease basis is presented by the amounts that do not include lease provisions (reimbursement or interest) that are calculated in advance. Furthermore, it should not be shown in balance sheets, but it is reflected in income statements in the periods when it incurs.

Given the fact that finance leases mean that the leased asset is recognized as an asset in a lessee's balance sheet, an expected consequence is the liability of a lessee to periodically depreciate the value of the leased asset that is charged with the depreciation expenses. Choosing the term that is going to serve as a basis for calculating the depreciation expenses (estimated economic life or the lease term) will depend on the criteria under which related leases were classified as finance leases.

If the lease contract includes the possibility of ownership transfer at the end of lease term, or if it contains the option to purchase real estate at the price that is lower than the fair value on the day when it is possible to take advantage of the option – Bargain Purchase Option (BPO), the real estate will be depreciated over the period that is the same as its estimated economic useful life. If the transaction is defined as a finance lease because of the fact that lease term is the same or almost the same as estimated useful economic life of the asset, or because of the fact that the present value of the minimum lease payments is greater or the same as the fair value of real estate at the beginning of lease term (under these criteria a transfer of ownership from a lessor to a lessee is not included), then period of depreciation is the same as the lease term or as the estimated useful life of the asset, depending on which one of these two periods is shorter. The difference

<sup>3</sup> The incremental borrowing rate is the rate under which a lessee could make a similar lease arrangement, but if the interest rate could not be determined at the beginning of lease term, then it is the interest rate under which a lessee could borrow under the similar term and similar conditions with the aim to buy an asset that is the leased asset.

in accounting treatment is the consequence of the basis of transaction: in the first case a given real estate becomes the property of a lessee either upon the end of lease term or upon taking advantage of BPO; in the second case the owner remains a lessor.

The method of calculating expenses of depreciation for real estate that is acquired through finance leasing must be in accordance with the depreciation policies that a lessee applies to real estate that he already owns. The rule that an asset is written off only to the amount of estimated residual value is applied in this case as well.

The liability from guaranteed residual value, if it exists, is most often settled with additional payments at the end of lease term. The existence of guaranteed residual value, among other things, is motivated by the reason to decrease periodical leases on the basis of finance lease in the exchange for the payment of certain amounts, whose quantity depends on guaranteed residual value at the end of lease term. But despite it, the calculation of depreciation must be based on the base that is reduced by estimated residual value of real estate (not by residual value that is most often significantly greater than estimated residual value), what on the one hand provides a systematic allocation of costs incurred during the whole useful period (leasing) of assets, and on the other, disables presentation of high expenses (losses) incurred in the last period of lease duration, which are the consequence of the guarantee.

Periodical lease annuity that a lessee pays to a lessor must be divided into a component of liability reduction on lease basis and into a component of interest expense under the same basis, whereby the interest, from one period through the other, is calculated on outstanding debt. It should be noted that upon the initial asset and liability recognition on the finance lease basis in the same amount, the value of balanced real estate is annually reduced on the basis of depreciated expenses, while the value of liability is reduced by the amount of lease annuity that is reduced by corresponding annual interest. For this reason upon the initial recognition, these two positions will not have the same value in balances of a lessee any more.

If a real estate is acquired via operating lease, a lessee would not transfer the significant part of benefits and burdens that are the consequence of the ownership of

assets. As a result, that real estate will not be recognized as an asset in balances of a lessee. Although it is leased, it still serves as a position of balance sheet of a lessor, hence he amortises it, in accordance with his accounting policies, in a way which depreciates the remaining similar assets.

Accounting treatment under the operating lease is much simpler than the accounting treatment that would be applied if the same real estate was acquired via finance lease, in a case of classical lease, that is in Serbia regulated by the Law on Civil Obligations. Given the fact that, in the case of operating lease, there is no asset recognition in lessee's assets, the lease payments for related real estate are treated as expenses during the whole period of lease duration, on straight-line basis, if that kind of basis properly reflects the exact time when the cash flow of a lessee is incurred. If lease payments are determined on straight-line basis, which means that there are equal periodical payments during the lease contacts, the lease expenses will be recognized following the same principle.

### Tax implications of real estate lease

As a rule, acquiring a real estate bears material tax consequences; therefore, tax planning of these transactions is a necessary precondition of maximizing tax savings. With real estate lease it is particularly important to consider tax implications in the scope of income tax, because they can be significantly different, depending on whether a lease is financial or operating one. Therefore, tax approach to lease is different in different countries.

The key question in terms of tax treatment of lease is who claims the tax benefits on the basis of the asset lease – whether it is the actual (legal) owner of assets, or economic owner. It is the fact that in tax laws it is very important to pay attention to the legal form of transaction, because it increases the legal support to taxpayers. For this reason, certain countries still prefer to relate the leased asset to a lessor. Nevertheless, there is a tendency to recognize the principle “substance over form” in the leasing case for tax purposes. This is especially characteristic in the countries where the influence of financial reporting on tax reporting is more present, but also in the countries where these two ways of reporting are largely independent (e.g.

the USA). Tax implications of leasing are primary based on economic reality, which means that judging is based on doctrines such as “economic substance”, “business purpose”, “substance over form” and “benefits and burdens of ownership”.

Although the situation in the EU is diverse<sup>4</sup>, current efforts of the member states to achieve harmonization of tax base of taxable income have a crucial importance. In 2011 a Draft Directive on a Common Consolidated Corporate Tax Base was proposed. In the draft it is clear that owner of an asset performs the depreciation, whereby an “economic” owner is defined as an entity “that basically bears all the benefits and burdens of the asset” [6, Art. 4]. It can be expected for this resolution to be recognized as benchmark that the member states should strive for.

Recognizing economic reality for tax purposes means that a lessee of finance lease, although he is not an asset owner, is able to use tax benefits from the acquired asset; these benefits are primary reflected in (accelerated) asset depreciation and in prospective tax credits on the basis of the investment that is made. Furthermore, the expenses of the interest that incur during financing from leasing are also recognised as reduced taxable income. As a result of decreased cash outflows of tax payments, all tax savings directly increase cash flows of an enterprise. The benefits of savings are even more increased because they are acquired earlier, therefore the accelerated depreciation and premature use of tax credits are significant stimulus for finance lease of assets and can greatly affect the making of investment decisions.

It is useful to mention that although a positive effect of accelerated depreciation on enterprise’s cash flows is indisputable, the effect will not be directly objectified in income statements and in the amounts of periodical results. Taxable income expenses incurred are not reported in the tax amounts that are paid by an enterprise in an accounting period, but they are reported by taking into account tax consequences of business activities recognized in financial statements. Tax savings on the basis of depreciation are then recognized bearing in mind the amounts of depreciation expenses in income statement.

<sup>4</sup> To find out more about the tax treatment of leasing in certain Europe countries look at: [13].

Additional saving that is achieved with greater tax than accounting depreciation is neutralized later in useful life of assets, when the amounts of depreciation deduction are necessarily decreased (lower than accounting expenses of depreciation) due to the exhaustion of depreciation sum for tax purposes, what leads to greater tax payments. This means that accelerated depreciation leads only to current and not to definite tax saving and therefore its crucial effect is postponement of tax payments. Postponed tax payments in balance sheet are recognized as postponed tax liabilities, because this way the estimate of company’s future cash flows, to be more precise, cash outflows, in the basis of tax payments, is advanced. On the other hand, income tax expenses in balance sheet include deferred taxes as well, beside the tax amounts that are currently paid. The consequences of accelerated depreciation on the amount of periodic results and net cash flow are shown in Table 1.

**Table 1: Integration of deferred taxes due to accelerated tax depreciation in income statement and cash flow statement**

Income statement	Cash flow statement (indirect method)
Income tax expenses	Net profit after taxation
Current tax expenses	+ Deferred tax expenses
Postponement of tax payments does not lead to greater periodic result	Postponement of tax payments leads to greater net cash flow

Enabling accelerated depreciation as a way of investment incentives is somewhat criticised, firstly because of a possible suboptimal allocation of resources due to disavowing of market mechanism. For example, accelerated depreciation may lead to excessive investments in fixed assets with longer life and to insufficient investments with shorter life of fixed assets (because here the effects of incentives can be lost faster). The USA law on tax from 1981 allowed the depreciation of business facilities for the unbelievable short period of time of only 15 years, which resulted in excessive investments in this type of assets and “excessiveness that was overcome only after twenty years” [22, p. 673]. Nevertheless, accelerated depreciation is very present incentive and it is unlikely that it will not still exist.

Unlike accelerated depreciation, tax credits for investments in real estate lead to permanent tax savings and directly reduce the tax amounts that should be paid

rather than reducing tax base; therefore, they largely attract investors. While estimating benefits from tax credit it should be noticed that there may be limitations of amounts that can be currently used and therefore the transfer of unused amounts to future periods is performed. This way subsequent increase of cash flow (due to low tax payments) is postponed, and expected tax saving can be lost, if an enterprise does not make sufficient taxable income during the period that is determined for the transfer of unused credits.

Therefore, it's not strange when in certain cases a lessee is not able to use potential tax savings so he turns to making a lease arrangements where tax benefits are transferred to a lessor (the case in operating lease), while the portion of savings is transferred to a lessee via lower lease reimbursement.

In Serbia, accounting approach is mostly followed in tax balance and, accordingly, a lessee of finance lease is in a position to use depreciation deduction on the basis of a leased real state when calculating taxable income. However, tax credits are available only for the investment in fixed assets that are legally owned. A lessee is not the owner of an asset; therefore, he is not able to get a tax credit. This way, acquiring assets through finance lease is largely neglected and more expensive compared to alternative ways of financing (e.g. through credit).<sup>5</sup>

With operating lease the arrangement substance implies that depreciation deduction, as well as tax credits, belongs to the owner of lease asset, but a lessee has a right to reduce tax base by the amounts of lease expenses. When the amounts of lease instalments are the same, finance lease, with regard to operative one, lead to recognising high expenses that incurred during the first years of using assets (depreciation expenses, which are increased by instalment expenses, are greater than lease expenses), and low expenses that incurred later. The faster the asset depreciation is, the more noticeable this phenomenon is. In that sense, finance lease enables a lessee to achieve tax savings earlier.

5 This is particularly the case, bearing in mind that tax credits are not low. According to the newest amendments of the Law on Legal Entity Income Tax, enterprises can use tax credit when acquiring fixed assets with the sum of 20% of the investments that are made, even though the tax amounts for the given year can be lowered to up to 33% with this credit. For small business legal entity the percentages add up to 40 % and 70 % respectively [25, Art. 48].

## The limitations of current reporting method on real estate acquired through lease

There is no doubt that the current accounting treatment of leasing has a large material defect that is the consequence of lease contract classification into capital and operating lease, and also of their fundamentally different treatment in financial reporting of a lessee. Real estate that is used by reporting entity when performing its business, and that is acquired through operating lease contract, may be seen from the data in the Notes to financial statements. Because of this:

1. financial reporting users neither can perceive the total asset volume that is used by an enterprise when performing its activities, nor do they obtain the information that says for what purposes assets acquired on the basis of operating lease contract serve, and
2. the liability to periodically pay for lease instalments that exists in the period that is, most frequently, longer than a year, is not presented in financial reporting and for this reason the users of financial reporting do not get the right insight into entity's credit worthiness.

Current accounting treatment of leasing is subject to many critiques of scientists as well as professionals, because it does not meet the needs of the financial reporting user, in the sense that it does not provide presentation of lease transactions the way it is. The asset of operating lease is not capitalized in balances of a lessee, although he gets certain benefits from it. This practice:

1. leads to inconsistency of this treatment with the definitions of assets and liabilities from Conceptual framework, and
2. does not give the overall picture of financial position of an entity to the finance reporting users because it omits to show the rights and liabilities that incur due to operating lease.

When we add to this the fact that, according to the S&P Compustat database, the share of operating lease in the total value of lease for the period 2000-2008 is 88%, which means that only 12% of all realized value of lease contract is presented in financial reports, the scope of



the problem becomes obvious. Information about the off-balance lease is being revealed in the Notes to the financial reports, which gives the opportunity to its users to independently perform capitalization with the aim of presenting the economic reality. However, collecting the necessary information and estimation of impact of off-balance lease, which is required for investment decision-making, can cause significant costs and involve high level of uncertainty. The situation may get worse if the information revealed in the Notes is incomplete, consequently causing a dramatic variation in the resulting estimates [21].

The existing criteria for lease classification are susceptible to manipulation; therefore, a lessee considerably takes advantage of this with the aim to classify the lease, which is capital in its substance, as operating one. Presenting operating instead of finance lease means that not only the latest debt in balance sheet is avoided, but also the increase of debt/equity ratio and decrease of interest coverage ratio with it. The perception of lessee's credit worthiness remains unimpaired, while the approach to latest debt remains simpler. The risk from violation of potential covenants in existing loan agreements is reduced. Lessees prefer lease presentation as operating lease also because they do not have to show real estate that is leased as a part of assets. While real estate that is leased contributes to generating income, its presentations in assets contribute to the growth of return on assets ratios.

Bearing in mind consequences from reporting operating versus capital lease, lessees are prone to structure lease transactions and contracts exactly in such a manner in which their classification into finance lease can be avoided.<sup>6</sup> Small changes in transactions are very often sufficient to avoid capitalization.<sup>7</sup> It is then possible that substantially same lease is differently treated by different

enterprises, considering their different appetites for off-balance financing, what further leads to the problems interfirm statement comparability.

Real estate lease most frequently contains two elements: land lease and facility lease that must be separately considered for the classification purposes. Given the fact that land very often has unlimited life, lease land classification will depend on whether the ownership of land will be transferred to a lessee until the termination of lease duration.

If the land and its important facility bear a different degree of burdens and benefits that come from the ownership, then they are divided into two leases and classified differently and, accordingly, they have a different balance treatment. On the one hand, the division of lease packages into constituent components and their separate accounting treatment and practice to arrange lease according to a rule define a unique lease instalment for a whole package and, on the other, make it necessary to divide minimum lease payments into two elements, proportional fair values of share of land and facility that are in lease.

Measuring fair value for these purposes should reflect unlimited life of land that does not lose its value during lease term, on the one hand, and limited life of buildings that are depreciated during a lease term, on the other. If it is not possible to determine fair value of one or two elements of lease, as similar land and facilities are not leased or sold separately, it would not be possible to surely allocate lease instalments on lease components. The liability to classify whole lease as finance one, in situations like these, represents an attempt to keep a lessee from treating a building lease as operating one, with the pretext that it is not possible to separately measure these two elements, although that is opposite to the transaction substance.

It seems that the largest number of opportunities for manipulation in terms of classification is provided by lease contracts by which the ownership of the leased asset is not transferred to a lessee, nor do they contain BPO. Lease arrangements like these ones require defining of materialistic importance of land shares in the total land property value, which is the leased asset, in order to determine whether it is necessary to decompose a

6 According to a recent study from 1980-2007, off balance sheet lease financing as a percentage of total debt increases 745%, while capital leases to total debt decreases 49.8%. In the study it was shown that finance and reporting implications of operating lease significantly contribute to the usage of this type of financing [7].

7 This is particularly emphasised when concrete numeric limitations for recognising lease as finance are set. For example, according to the USA GAAP, if the period of lease is over 75% of economic useful life of an asset, then we talk about finance lease, what implies that reducing the period of lease duration by several percents beneath 75% enables the lease treatment to be operating one.



lease. Even when it is obvious that the land shares are minor, the classification of the whole lease into capital or operating one requires judging which period of economic real estate life should a lease contract cover in order to be perceived as finance one, that is to say, which percent of real estate fair value a current value of minimum lease payment must have.

Although they are few in practice, these contracts in scientific literature are defined as “specific situations that cannot be found in the scope of IAS 17”; because of this their decomposition, in terms of classification, is largely susceptible to subjective judgement [19, p. 435].

In practice, quite frequently, one can come across lease contacts that have a portion of real estate as a subject, for instance, a lease of one or more floors of a business building, lease of stores within a shopping mall etc. The most common problem that may arise in the accounting treatment of these contracts is impossibility to determine a fair value of the real estate portion that is the leased asset in terms of objectiveness. In situations like these, an assessment of relationship between current value of minimum lease payments and fair value becomes irrelevant and therefore the only remaining and valid criterion under which it is possible to classify lease for accounting purposes is the relationship between lease term and economic life of the leased asset. Then, defining economic life of the leased asset implies the estimate of economic life of the whole real estate that consists of the leased rooms.

The complexity of lease contract classification, i.e. of its components, can be a powerful tool for shaping the appearance and contents of financial statements when used by skilful managers and accountants. If we start from the fact that real estate has a great individual value and that acquiring it through lease transaction has long-term liabilities as a consequence, manipulations in the scope of lease contract classifications can significantly change, in terms of materiality, the perspective of financial position of reporting entity. Eventually, the processes of convergence and constant improvement of financial reporting quality imply that it is necessary to remove defects of accounting treatment of lease transactions making it superfluous to mention that the current condition, in this scope, is not the one to last long.

## Perspective of financial reporting on lease business

With the aim to overcome the limitations of currently valid accounting regulation that has the accounting treatment of lease contracts as its subject, in the last six years it can be seen that efforts of regulatory bodies (IASB and FASB) have been made. These efforts are focused on the project of the development of the new accounting lease model which should enable assets and liabilities, which are the consequence of the lease transaction, to be recognized in balance sheet, for the sake of increasing financial reporting value of use.

The solution for the problem on the uniform basis, is apparently not a trivial task because the propositions of a new standard draft that have been published are significantly different in the terms of not only the lease contract classification, but the repercussions on balance sheet as well. Nevertheless, today it is already certain that a new accounting standard on leasing will be based on the fundamental principle of the right of use (*right-of-use model*) which includes the measurement and recognition of the right of use of the leased asset, that is to say, the measurement and recognition of the transfer liabilities of the right of use the leased asset.

Given that the existing treatment of operating lease is labelled as cause of the financial reporting defects of the entities that have an important asset portfolio under the operating lease, the implementation of the solution will affect mostly the appearance and quality of their balances. Looking from the financial reporting perspective, operating lease will become equal to the capital one, what will result in a dramatic increase of assets and liabilities, while the amounts before tax, interest and depreciation (EBITDA – Earnings before interest, tax, depreciation and amortization) will also be increased because straight-line lease expenses that are current will be turned into the increased expenses of depreciation and interests.

Debt ratio in the overall capital, interest ratio, return on assets rate (ROA – Return on Assets) and other indicators, will largely succumb to these changes, while the comparability of these ratio numbers, when

compared to the previous periods, will significantly be impaired [3, p. 63].

Looking from a lessee perspective, but within the concept of the right of use, each lease contract of long-term nature<sup>8</sup> will have the same treatment in the reporting on financial position, regardless the degree of burdens and benefits of the leased asset ownership that a lessee is exposed to. On the day when a lease term begins, a lessee, in the asset balance sheet, recognizes the asset that represents his right to use the leased asset during the lease term, while at the same time in liabilities balance sheet he recognizes the lease payments liability. By counting current value of lease payments, the initial value of assets can be reached.

For the purposes of initial and additional measurement, lease payments represent a relatively complex category that may include: lease instalments, potential leases, guaranteed residual value, contractual penalties that are paid by a lessee, and the price by which BPO may be realized<sup>9</sup>. Lease instalments, as periodic lease payments that are related to the flow of time, are most frequently exactly determined by a contract itself. Potential leases are lease payments whose appearance and quantity are related to future activities. A lessee will estimate the sum of lease payments on the basis of potential leases that are related to the movements of certain indexes or rates, using reliable data on the future rates, that is to say, indexes, that are available, but if they are not available, the estimate will be made on the basis of current, dominating rates, i.e. indexes. The sum of lease payments on the basis of guaranteed residual value will depend on how large are the differences between guaranteed residual value and expected residual value that the leased asset will have upon the termination of the lease term. The payment expectations on the basis of contractual penalties will depend on the likelihood of the occurrence of certain factors that will cause the penalties to incur.

<sup>8</sup> Lease that at the date of commencement of the lease, has a maximum possible lease term, including any options to renew or extend, of 12 months or more.

<sup>9</sup> In the moment when a lessee has used BPO, lease relationship is terminated and a lessee buys an asset that was the leased asset up to that moment. Looking from that perspective, it is debatable whether the payment on the basis of BPO should be included into lease payments.

Therefore, the structure and the sum of overall lease payments may have several different outcomes. In addition, it seems that a consensus about lease payment structure has not been reached yet within regulatory bodies.

Although it is abundantly clear that almost all lease contracts will find a reflection in a report on financial position, their effect on income statement has not yet been crystallized. One of the possible solutions may be that a lessee performs a straight-line depreciation of the asset that he recognizes in asset balance sheet on the basis of lease relationship, from the beginning of lease term until the termination of it, that is to say until the termination of useful life of the leased asset (if this date comes earlier). Beside the expenses of amortisation, on the basis of lease contract, in income statement interest expenses are calculated on outstanding debt. This structure of expenses that are the consequence of leasing, would cause the appearance of greater expenses in the first years of the lease term, whereby the burdens of income statement would later decrease relatively with the decrease of debt principal.

Contrary to the possibility of a unique accounting treatment in income statement, there is a solution “on a plate” that would cause a different effect on income statement depending on the type of lease arrangement [5]. This approach comes from the classification of lease contract on the basis of two criteria:

1. the economic life-span of the asset that is covered by a lease contract, and
2. the relationship between current value of fixed lease payments and fair value of the asset that is the subject of a lease contract.

In regard to this, the largest number of contracts on real estate lease (the contracts that do not cover most of the economic life of real estate or the current value of fixed lease payments is significantly lower than real estate fair value) would cause the depreciation liability of real estate acquired through leasing, together with lease interest, to be recognized on the straight-line base in income statements within the scope of operating expenses (lease expenses); a lease payment liability would decrease during every additional measurement according to the effective interest rate method, whereas the asset would be progressively written off in the amounts that are equal to

the difference between straight-line lease and calculated interest (that is decreased from one period to the other due to the fact that it should be calculated on the debt outstanding). The treatment of expenses on the basis of lease is similar to the existing accounting treatment of operating lease through income statement.

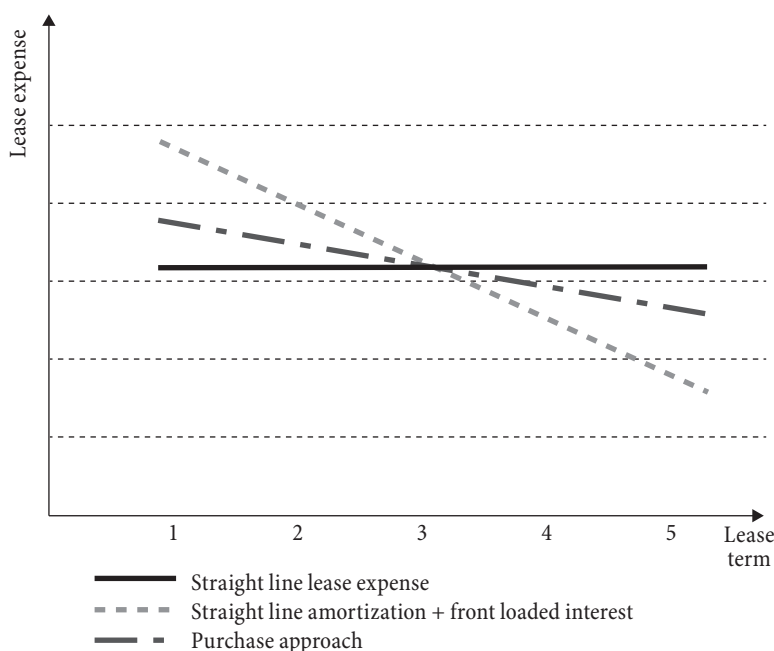
Otherwise, if a lease term is for the major part of the economic life of real estate, or the present value of fixed lease payments accounts for substantially all of the real estate fair value, the effect on income statement would be significantly different. The expenses of the asset depreciation (the right of use) would appear separately from the calculated interest and would be calculated through a method that shows the pattern of real estate use. This would have as its consequence profiling of expenses on the basis of lease contract in the way that is close to the expenses, which would exist in income statement if the given real estate was acquired by purchasing, and purchasing financed through a debt. A graphic illustration of the effects of the above-mentioned approaches on the income statements is presented in Figure 3.

Apart from already discussed dilemmas, another stumbling block in the establishment of professional regulation in the field of lease accounting is whether the right of use of real estate, that is the leased asset contract,

will be classified as material or immaterial property. A crucial consequence of implementation of the right of use principle, that dominates the latest lease accounting model, is that a lessee, on the basis of lease transaction, recognizes an asset that does not reflect a material position that is owned by an entity, but an asset that is reflected in the right of use of material position that he does not own, but on the basis of which he will achieve future economic benefits. With regard to this, during the lease term, a lessee recognizes and evaluates the right of use of real estate that is the leased asset and not just real estate. This raises a question whether a new standard on lease will refer to IAS 38 that signs an accounting treatment of material property, or IAS 16 that regulates balances of real estate, existence and equipment, and whether real estate that is the leased asset will be presented within the Immaterial property position, or within corresponding group of assets from the class of Real estate, existence and equipment, but separately from that group assets that are owned by a lessee.

It is not less important whether a new scope for accounting lease will eventually allow the possibility to exclude short-term lease contracts from the described rules for recognition and evaluation that rest on the right of use principle. If the professional regulation allows this

Figure 3: The effect of different approaches to accounting treatment of lease expenses on income statement



Source: [13, p. 21]

option, opportunities for manipulation of off-balance financing that exist due to the valid accounting treatment of operating lease will be narrowed, but will not disappear.

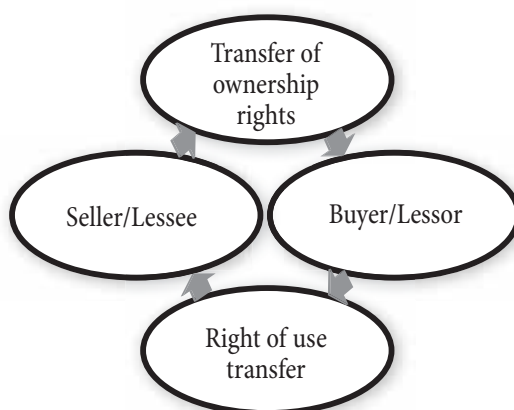
Scientists and professionals expect that in new professional lease regulation a problem of setting a clear line between purchase transactions and lease businesses will be solved. Setting this line will not be simple, because there are firm arguments that lease contracts that most commonly measure the control over the subject of real estate, as well as ownership burdens and benefits, are treated as sale (purchase). In other words, it is not wrong to consider the lease contracts that include automatic transfer of ownership of the given real estate upon the termination of lease period, as well as contracts that contain an option of the purchase of real estate by price, that is expected to be significantly lower than fair value of real estate (BPO) on the day when it is possible to use the option, what creates a huge likelihood, at the beginning of a lease term, that the option will be used as a way to sell real estate [9, Appendix B]. It remains only to be decided in what way the expenses will be accounted and when they are going to be recognized on the basis of this kind of real estate sale, given the fact that the dynamics of payments does not have to coincide with the pattern that is followed in order to transfer the burdens and benefits of the ownership. With this, a new challenge has been set for accounting. The challenge consists of making a clear distinction between lease and sale transaction, and of establishing an accounting treatment that would normally maintain the differences that stem from their economic substance.

### Sales transactions and real estate leaseback characteristics

Looking from the point of view of the effects made on profit-making capability and financial position of an enterprise, the most interesting real estate lease type is the transaction where an entity sells real estate to the other entity and leases it at the same time. This business is structured from two economically different transactions that do not bear a physical transfer of an asset, the subject to the business, as its consequence. The way this business is structured is presented in Figure 4.

The trend of sale and leaseback started with occasional transactions in the mid 1990s, while the scope of these transactions was increased nine times only few years later (1998-2002) [2]. The frequency of this phenomenon increasingly coincides with the development of real estate market, which had as its consequence an intensive development of specialized institutions, dealing with the making of real estate portfolios that are made with the aim of leasing and selling real estate, on the one hand, and increasingly stringent requirements of financial institutions during the process of long-term lease granting, on the other [15]. Professional real estate management by specialized houses (lease companies and different funds) has led to increasingly higher number of entities that opt for the option to be lessees rather than real estate owners. Therefore, lessees are willing to pay higher lease instalments in the exchange for professional service, lower expenses, and risk reduction. At the same time, due to the economy of scale, these institutions are able to offer real estate lease

Figure 4: Sale and leaseback



requirements, based on the interest rates that are mostly more favourable than those of financial institutions [23].

Sale and leaseback transactions are different from direct lease when it comes to several important elements [8]:

1. Direct lease means acquiring real estate that an entity did not use up to that moment, while through sale and lease back, an entity sells real estate that he has already used, and at the same time he continues to use it on the basis of lease contract which states the use period and reimbursement.
2. In practice quite frequently (among everything else, as a measure of enterprise recovery) it happens that the subject of sale and leaseback is real estate portfolio combined with other assets (most commonly equipment and facilities related to the real estate), what makes these transactions financially larger and more complex than direct lease.
3. In sale and leaseback contracts it is typical that a new owner takes over the responsibility related to the management and risks related to real estate.
4. An entity that appears as a seller/lessee in this transaction, obtains a compensation for real estate sold, in the amount that is the same as current market price, keeping the right of real estate use in its own business at the same time.

Characteristics of sale and leaseback point to close similarity with long-term financing, which is why this business is, in both theory and practice, presented as a perfect substitute for a long-term debt. This statement is true, if all ownership burdens and benefits are transferred to a lessee through lease contract, what is the case only in finance lease arrangements. With operating lease, a buyer/lessor keeps the ownership burdens and benefits, while seller/lessee eliminates real estate from his balances, but does not terminate to use it while performing his own activities, thereby ensuring a long-term off-balance financing. Existing projects of the development of financial reporting standards in USA and Europe, point out that the possibility like this one (not presenting liabilities on the basis of external financing) will be available for short period of time. Certain research shows that the market gives positive and statistically significant signals, reflected in share price, to sale and leaseback arrangements, while

on the other hand that kind of effect during the emission of the new circle of activities or additional borrowing does not exist or it is even negative [20]. For that reason it would be better to say that classical borrowing and sale with leaseback are complementary ways of financing, rather than substitutes.

Sale of real estate and lease of the same asset necessarily leads to objectifying of latent reserves that are part of underestimated carrying value of real estate [4]. The share prices most frequently do not reflect the real asset value of an entity, due to informational asymmetry that exists between a manager and investor. This problem is particularly expressed in real estate example, given the fact that it is difficult for investors to estimate the value this type of asset based on financial reporting. The use of historical expenses principle with real estate leads to making significant exceptions between carrying value and current market price. As time passes, this distortion becomes even bigger, causing the appearance of secret reserves. This is why their realization through real estate sale also implies a positive response of market to sale and leaseback transactions.

By capital release achieved through real estate sale, entities reach a significant volume of liquid assets, which then may be invested in profitable projects related to the basic activity, which increases rate of return on invested capital. If the same real estate is leased at the same time, a diversification of financing sources is then performed, because the use of previously sold real estate is financed through real estate market, and not through financing market. When we add to this potentially favourable tax effects, the advantages of this type of transaction appear to be apparent.

Tax motives for carrying out sale and leaseback can be very significant, even crucial for performing this transaction. For an example, land is immobility which is characterized by unlimited life, for this reason the expenses of depreciation cannot be recognized for neither financial reporting purposes, nor for tax purposes. Nevertheless, if the land is leased, and land lease is most frequently treated is as operating lease, then the amount of lease imbursement is not counted while determining taxable income. Thereby, the sale of land may lead to the presentation of capital



income, which is the taxable subject, but that tax can be significantly surpassed by future tax savings, thanks to the leases that will reduce tax base.

Tax benefits may be apparent with sale and re-lease of building facilities. For an example, if an enterprise has capital losses with which a possibility of further transfer in advance is easily reduced, making it possible for an enterprise to lose tax savings related to it, then the sale of real estate by which an enterprise could obtain capital gains, appears as the way to prevent tax benefits losses, i.e. to create “non-taxable” capital gains thanks to setting them off against capital gains. On the other hand, if an enterprise needs that real estate, then leaseback is ideal opportunity because it leaves a possibility of reducing taxable incomes to an enterprise – either for lease imbursement with operating lease, or amortization expenses that are increased by the interest with capital lease. These expenses are even greater than depreciation deductions before the real estate sale, bearing in mind that secret reserves are being objectified by the sale.

If an enterprise is in an opposite situation, and it possesses impaired real estate, then a sale and leaseback could help the enterprise to speed up the presentation of related capital loss for tax purposes and therefore it could obtain tax saving earlier, i.e. to advance its cash flow. This is the result of the fact that the losses, due to the impairment, are not recognized for the tax purposes immediately after they have occurred, as it happens in financial reporting, but the recognition is delayed until the loss is objectified in market transaction.

Sale and leaseback transactions can be subject to denial by tax authorities. Therefore it is necessary to prove that there exists another business purpose, apart from avoiding tax, something like a lack of liquid assets and limited approach to the traditional sources of financing, at the same time.

Beside tax reasons, an additional motivation for exchanging the status of owner for the status of a lessee can be an increased efficacy through rationally using the capacity, through entrusting the organization and maintenance of the space to a new owner, who is specialized for this type of services. Entities increase flexibility in terms of reacting to the market changes by lease instead of possessing real estate because the ownership of real estate

sets certain limits in terms of size, type and location of facilities which, in the latest market circumstances, may not be suitable for fulfilling the aims in a competitive match.

It does not mean that there are no potential risks coming with sale and leaseback transaction. Seller/lessee of real estate may be forced, after the termination of lease contract, to negotiate the possibilities of prolonging the period of using real estate but under the new requirements which include a high risk of the lease price increase. If a buyer/lessor does not want to renew the lease contract, an entity will be forced to satisfy the need for real estate by reallocation, which is related to a large range of expenses and risks that may incur if an adequate real estate, which could completely enable a smooth business continuation is not found.

With the aim to prevent these situations from happening, entities quite often enter the lease contract that lasts really long, what further exposes them to additional risks of moral and economic obsolescence of real estate that, after some time, will not be able to meet the market requirement.

As much as it offers flexibility to entities, sale and leaseback transaction can limit it. Due to defined stringent penalties that are applied when one party decides to terminate the contract, entities are forced to use the real estate although it stopped to satisfy the needs if an entity in some aspects. One of the possible solutions could be to turn to modernization and structural alteration of real estate, what an entity will rarely opt for. Activities like these ones mean that there is a wide range of assets that are necessary for financing the renovation process that cannot be provided externally on the basis of real estate investment while on lease, but a mortgage must be placed in a different real estate that is owned by an entity. While renovation work and modernization are carried out, the activities of an entity in that segment are terminated. At the same time there is the liability of lease payments in the periods when the leased asset is not used at all.

Lease contracts which define fixed periodical amounts of lease instalments bear a risk of the decrease of market price of lease, for which reason entities, in these periods, would be forced to pay for the right of use the prices that are a way greater than market ones. Given the fact that the sale and leaseback are being negotiated together, the

important part of the stated risks can be improved by the sum of selling price, which will keep the award for these risks, or by defining more flexible conditions in terms of lease duration, or changes of lease instalments. The risk that entities will be exposed to after the professional regulations in the field have been changed, means eliminating the possibility to exchange real estate in balance sheet for cash equivalent, through sale and leaseback transactions in the form of operating lease, without expressing liabilities on the same basis. This way the appearance of these transactions is decreased, looking from the perspective of their effect on the appearance of financial reporting,

Accounting treatments of sale and leaseback will depend on whether the result of the transactions is financial or reporting lease. If the transactions results in financial leaseback, then we talk about the instrument of financing, whereby the given real estate represents the means through which this is fulfilled. For that reason, a possible difference that may occur between the sale price and carrying value of real estate cannot be recognized as the loss out of sale. Instead of it, the sum of difference includes the whole period of lease term and, and it amortises, that is recognises it as an income, uniformly in each and every period where the right of real estate use is realized.

The real estate sale that had operating lease as its result can have significant implications on how high the presented result is in the period when the transaction was carried out, but also on the results of accrued period when the real estate will be used. How great the result of this transaction is and its accounting treatment will depend on three elements: carrying values of real estate, fair value of real estate, and accomplished sale prices. Apart from this, important element that will determine accounting treatment of losses made from real estate sale is the sum of future lease payments. Bearing in mind that sale and leaseback are negotiating together, the low price of purchase transaction can have economic effects when defining lease instalments that are officially beneath the current market condition. For this reason, the losses made of real estate sale are considered to be compensated by low lease prices; therefore, they are not recognized in the moment of transaction, but they must be separated and

amortized in the period when the real estate will be the leased asset.

## Conclusion

Overcoming numerous defects of existing accounting treatments of lease and increasing useful value of financial reports of an entity that has a wide range of assets on lease (especially on operating lease), represent invaluable contributions of the right of use concept as the base for a new accounting lease. The users of financial reports, who will no longer have to calculate the amounts in which entity's assets and liabilities are reported, will enjoy the largest number of benefits from the right picture of which asset volume an entity really uses and what are his liabilities on that basis. Nowadays, these activities are performed by financial analysts. In most cases, as a consequence, they have great expenses incurred by obtaining financial reporting information of a debatable reliability, because the interpretation of off-balance information from commonly poor Notes to the financial reports is based on the estimates and subjective judgement.

Each of the described solutions that could be found in a new standard on lease businesses has its advantages and disadvantages looking from the aspect of lease contract substances, separately. It is unquestionable that imposing liabilities to reporting entities in terms of rights and liabilities presentation from the lease contract in the report on financial position will enable uniform accounting treatment for most lease contracts, what will eventually increase the comparability of financial reports. The implementation of right of use model undoubtedly leads to higher quality measurement of the leased property, because in financial reports of a lessee the same real estate, or its portion, will be presented on different values, depending on whether a lease term covers smaller or greater part of its economic useful life.

Although operating lease as the type of business has its economic purpose, the existence of operating lease accounting will be secured in the moment when a new lease reporting model is introduced in near future. Therefore, it is necessary for entities, even now, to start preparing what would provide an easier implementation of new rules.

Updating accounting data bases on existing lease contracts would represent a step forward to a better understanding and analysis of consequences that would certainly be made on financial reports by the changes proposed. Also, the trainings provided for the professional staff, which should use a new Standard while dealing with the transactions from accounting perspective, appear to be incoherent factor when obtaining quality information. Collecting the data, setting up new calculation schemes for determining not only the amounts that will be capitalized but also the designs of software solutions; in this phase it will make it easier for entities to respond to, today already certain, radical changes with more flexibility. It is important to note that the changes in accounting approach to lease may lead to the changes in tax treatment of lease, particularly in those jurisdictions where the financial reporting is in conformity with tax reporting. As a result of this, an unavoidable analysis of related tax consequences arises. Looking from the perspective of a manager, this is a phase where advantages and disadvantages of alternative ways of real estate acquisition should be considered, while keeping up with the recent situation, and for the sake of future strategic decisions.

It is noteworthy to mention the possibility of real estate sale and leaseback, by which it can be overcome not only the problem of liquidity, but also a number of other strategic problems that enterprises are particularly exposed to in the conditions of current crisis. There are two effects that cannot be avoided. The first one is the improvement of financial report appearance, as well as the ratio of financing, profit-making capability and asset structure, through: eliminating parts of illiquid assets, and at the same time increasing the cash, that is to say the cash equivalents; dispersion of the financing sources, among which those that are part of operating lease are of off-balance character; objectifying hidden reserves that are part of real estate which are valued through the method of acquiring value; presentation of income obtained through the sale in current and future accrued periods; separating the losses that are realized and their periodical recognition in the periods when the real estate was used; eliminating the depreciation expenses etc.

The other effect is freeing the capital that could, afterwards, be invested in entity's profitable projects within the scope of its activity. If such projects exist, and if estimated return rate of these projects is higher than lease discount rate, then the sale and leaseback businesses may be the trigger for the increase of capital return rate, hence for the increase of market value of an enterprise as a whole.

Therefore, the analyses of further transactions development will be interesting after the new accounting treatment of lease transactions has been introduced, which will immediately treat certain contracts as sale, while the others, those that had the treatment of operating lease arrangements, will significantly decrease positive repercussions of the above-mentioned effects that arise during the first year. The development of future events will reveal basic motifs for undertaking sale and leaseback businesses in large scope during the past decade and will lead to the conclusions whether entities use these businesses as an instrument of shaping a financial report, or as businesses with economic purpose, which expect additional values to arise.

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## SERBIAN BANKING SECTOR: RISING OPPORTUNITIES ON THE HORIZON

Bankarski sektor u Srbiji: na horizontu perspektiva

### Abstract

After the first wave of the global crisis, in 2010 and 2011, the Serbian banking sector remained stable, largely owing to the preserved vitality of the real sector of the economy due to a moderate recovery of FDI inflow, as well as the Government's program for mitigating the adverse effects of the global economic crisis, aimed at stimulating domestic demand (the GDP growth rate amounted to 1% and 1.6%, respectively). During 2012, the election year, the economy went into recession (the GDP growth rate was -1.7%), i.e. economic activity, FDI and the overall performance of the real sector of the economy declined, which, combined, had an impact on a decline in banking sector performance. Data indicate that banks' credit activity in post-crisis years has recorded a trend of deceleration, both in terms of scale and in terms of risk or conservatism in their approach, all of which is a result of economic recession. However, if banking sector performance is viewed from another perspective, although profitability exhibited a downward trend over the observed period, capitalization of the banking sector is more than adequate and the current share of banking sector assets in the GDP (about 82%) indicates that there is room for further growth. As yet, there is no threat to banks' liquidity and solvency, and confidence in the banking system is stable. However, the main risk to banking sector stability and the influence of the monetary policy on the economy lies in the vitality, or recovery, of the real sector of the economy, i.e. in the economic policy makers' activities/measures aimed at reviving economic activity in the forthcoming period.

**Key words:** *real sector of the economy, recession, solvency, liquidity, capitalization of the banking sector, economic recovery, economic policy makers*

### Sažetak

Nakon prvog talasa globalne krize, tokom 2010. i 2011. domaći bankarski sektor se stabilno održao, zahvaljujući, dobrim delom, održavanju vitalnosti realnog sektora privrede usled blagog oporavka priliva SDI-a, kao i programa Vlade za ublažavanje negativnih efekata globalne ekonomske krize, usmerenog ka stimulanju domaće tražnje (stopa rasta BDP-a je iznosila 1% i 1,6% respektivno). Tokom 2012. izborne godine, privreda ulazi u recesiju (stopa rasta BDP-a je -1.7%), tj. dolazi do

pada privredne aktivnosti, SDI-a, kao i opštih performansi realnog sektora privrede, što sve zajedno ima uticaja i na pad performansi bankarskog sektora. Podaci pokazuju da u postkriznim godinama kreditna aktivnost banaka beleži trend usporavanja, kako u pogledu obima aktivnosti, tako i u pogledu rizičnosti, tj. konzervativnosti u pristupu, a sve kao posledica ulaska privrede u recesiju. Međutim, sagledavajući sa druge strane performanse bankarskog sektora, iako profitabilnost tokom posmatranog perioda beleži opadajući trend, kapitalizovanost bankarskog sektora je više nego adekvatna, a trenutni udeo aktive bankarskog sektora u BDP-u (oko 82%) ukazuje da postoji prostor za dalji rast. Još ne preči opasnost po likvidnost i solventnost banaka, a i poverenje u bankarski sistem je stabilno. Međutim, osnovni rizik po stabilnost bankarskog sektora i uticaj monetarne politike na ekonomiju leži u vitalnosti, tj. oporavku realnog sektora privrede, odnosno aktivnostima/merama kreatora ekonomske politike usmerenim ka oživljavanju privredne aktivnosti u narednom periodu.

**Cljučne reči:** *realni sektor privrede, recesija, solventnost, likvidnost, kapitalizovanost bankarskog sektora, ekonomski oporavak, kreatori ekonomske politike*

### Introduction

The global financial crisis, which was not expected to reach such proportions, has led developed market economies into recession. Considering that Serbia is a small economy with a significant share of foreign trade in its GDP, it was only a matter of time when global developments would be reflected in the local economy ("time lag").

Owing to good capitalization of the Serbian banking system, the first blow of the global crisis, in the last quarter of 2008, was fended off successfully. During 2009, the banking sector was faced with a lower availability of funds for investment ("cross-border" arrangements declined significantly, and the domestic deposit base was not



additionally strengthened), which made borrowing more expensive (higher interest rates essentially mean a lower level of investment activity, and expected consequences include lower liquidity of the real sector and difficulties in servicing the existing loans). The trend continued in 2010 and 2011; thus, at the end of 2012, the economy faced a shortage of liquid assets and high liabilities, which significantly affected the preservation of banking sector stability.

Crisis effects are primarily manifested in a *lower foreign direct investment (FDI) inflow and, accordingly, a lower foreign currency inflow*, which, combined with growing inflationary expectations, affected domestic currency weakening, despite NBS interventions. In addition, *international borrowing became more expensive* for the banking sector and *available funds lower*. Funds borrowed abroad constituted one of the key sources of credit expansion until 2008; hence, the lowered availability of funds significantly affected:

- *higher lending interest rates*, which meant more expensive loans, as well as a rise in annuities due for those who borrowed at variable interest rates (after the rise of lending interest rates to over 12% in 2008 and 2009, they stabilized at 9-10% in the period 2010-Q3/2012);
- *higher borrowing interest rates*, whereby banks tried to attract available funds with a view to enhancing their credit potential (a rise in borrowing interest rates is frequently a signal of jeopardized liquidity – after an increase in borrowing interest rates to over 6% in 2008 and 2009, they stabilized at about 4% in the period 2010-Q3/2012);
- *lower credit supply*, resulting in difficulties in financing production and jeopardized liquidity of the economy;
- *growth of low-quality assets*, as a number of enterprises was not able to repay their loans owing to considerably deteriorated operating conditions;
- *withdrawals of deposits* due to banks' jeopardized liquidity or bankruptcy of major banks globally (as a result of the first blow of the global economic crisis, retail banking customers in Serbia withdrew about one billion euros of savings in 2008 and 2009).

## Overview of the business climate in Serbia

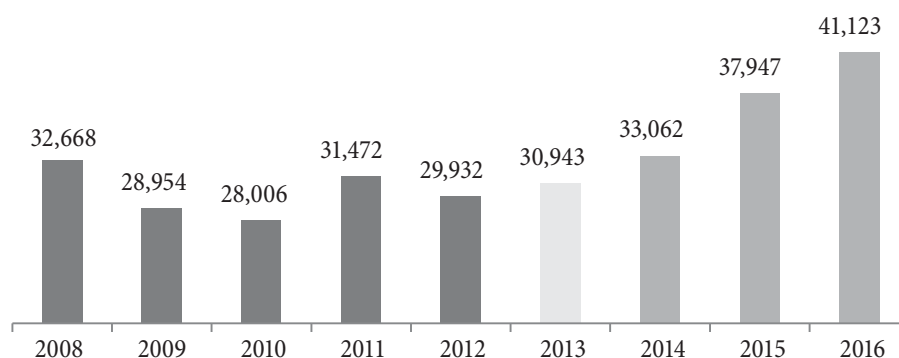
### Gross domestic product

In the past 10 years, Serbia was one of the fastest-growing economies in Europe due to large FDI inflows and high growth of the services sector, especially wholesale and retail, which eventually resulted in high imports increase.

However, in 2009, the economy was severely hit by the global financial crisis, which resulted in 3.5% decrease in its GDP compared to the previous year. After a slight recovery in 2010 and 2011, in 2012 Serbia had an election year and slipped back into recession again (see Figure 1 and Figure 2).

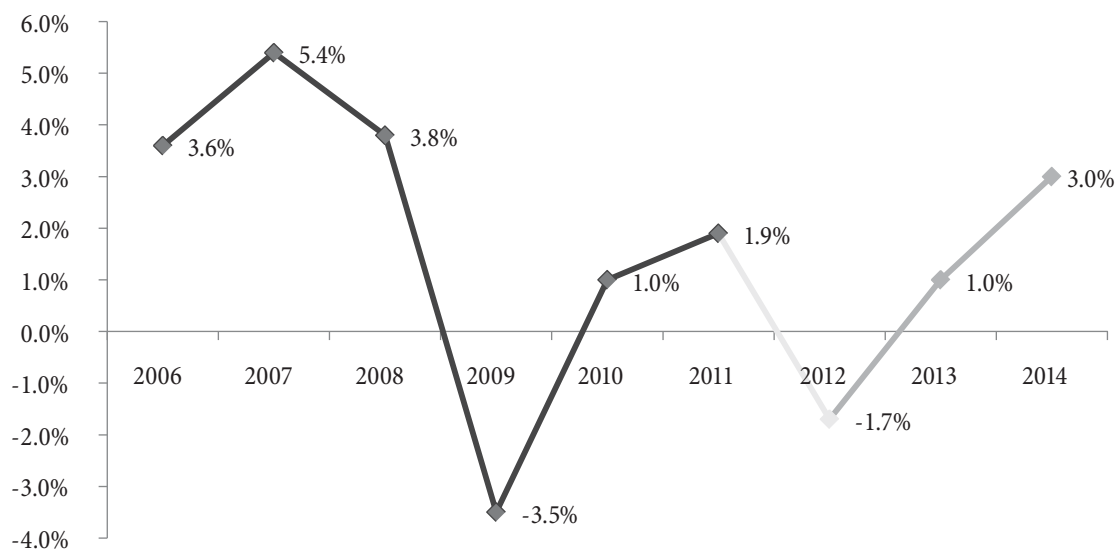
Despite fragile economic performance in the past couple of years, it is expected that the economy will return on the path of strong growth (GDP growth is forecast to pick up in 2013-16, to an annual average of 3.5%), if it manages to gain the official status of candidate for accession to the EU, which should secure stable foreign capital inflows in the upcoming years.

Figure 1: Gross domestic product (mil. EUR)



Note: GDP growth 2012-2016 is forecasted by the Economist Intelligence Unit  
Source: NBS, Economist Intelligence Unit

Figure 2: GDP growth trends from 2006 to 2014 (%)



Note: GDP growth 2012-2014 is forecasted by the Economist Intelligence Unit  
 Source: Statistical Office of the Republic of Serbia, Ministry of Finance and Economy, NBS

### Industrial production and service industry

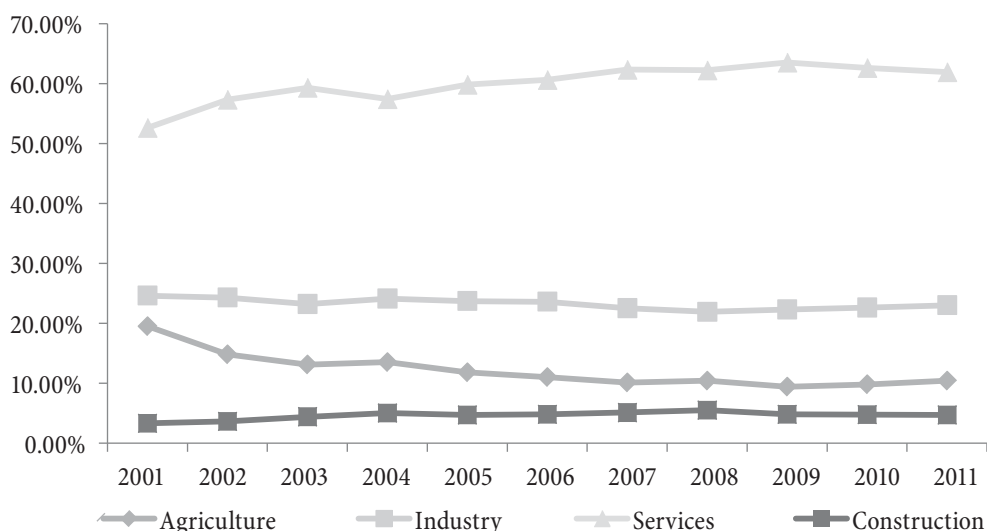
The GDP structure has not changed significantly in the previous 10 years (see Figure 3); however, the relative contribution of the individual sectors has endured substantial shifts. The most obvious have been the relative deterioration of the agricultural sector and the slight decline of the industry sector – all in favor of an overall increase of the already dominant service sector.

In 2011, nearly 85% of the GDP consists of the service and industry sectors. In the service sector, real estate business is the single largest with an 11.9% share in the overall GDP, followed by wholesale and retail trade with

10.7%. In the industry sector, manufacturing was the single largest component with 16% of the GDP, followed by electricity, gas and steam supply with 3.7%.

Estimations are that economic growth will lead to an increased demand for loans by the business sector, with special emphasis on agriculture, which is expected to have a sharp growth in the upcoming years, as well as in the corporate sector, where growth should be boosted as a result of increased production of the investments from previous year (Fiat, Michelin, Yura Corporation, Benetton, Falke, Cooper Tires etc.) and entry of new foreign investors to the market.

Figure 3: Changes in the structure of the GDP from 2001 to 2011 (%)



Source: Statistical Office of the Republic of Serbia

## Employment

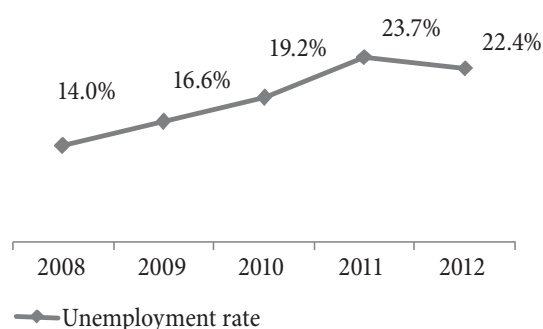
The population of the Republic of Serbia has been constantly decreasing in the past decade. According to the official population censuses of 2002 and 2011, the population decreased by 4.15%. Another important trend is that Serbian population is ageing. The 2011 census indicated that 14.9% of the population were below the age of 15, and 16.6% were aged 65 or above. However, fertility rates are constantly declining, which eventually results in the rise of the old-age dependency ratio (the ratio of people aged above 60 to the working-age population), which has significant implications for the fragile Serbian state pension system.

On the other hand, the most pressing issue for the Serbian economy is a rising trend of unemployment (see Figure 4). In the period from 2008 to 2012, unemployment rate rose from 14% to 22.4%. This rapid increase was a direct result of the international economic crisis, unsuccessful privatization process and slowdown of foreign direct investments. The unemployment issue is especially problematic in smaller provincial towns, where there is a serious shortage of professional work, meaning that many young people are either unemployed or under-utilized, and consequently seek work in other places. As a consequence, unemployment will have direct influence on the weakening private consumption in the upcoming years.

## Inflation rate

Serbia has recently experienced one of the highest inflations (see Figure 5) in the region as a result of rapid increases in the price of food, administrative price increases and a sharp rise in public sector wages and

Figure 4: Unemployment rate (in %)



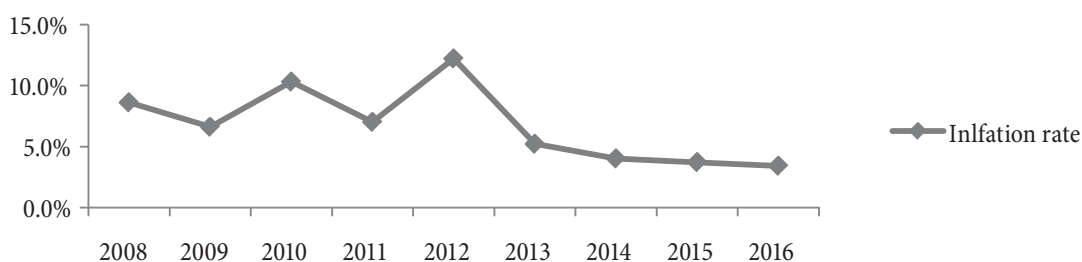
Source: Ministry of Finance and Economy of Serbia

pensions. Furthermore, continued uncertainty related to the euro zone economic situation had a negative impact on exchange rate developments and capital inflows, and eventually on the inflation.

However, in the second half of 2012 and the first half of 2013, the strengthening of the dinar and tight monetary policy have resulted in a disinflationary impact. In the upcoming years, the National Bank of Serbia expects the inflation rate to lower and approach the tolerance threshold of  $4.0 \pm 1.5\%$ .

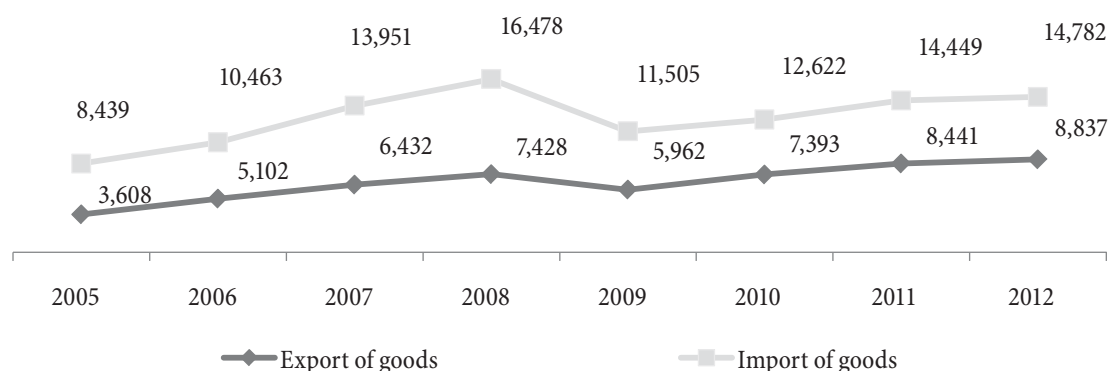
The National Bank of Serbia (NBS) uses monetary policy to target annual inflation based on the consumer price index with the two-week repo rate as the main policy instrument. The projected inflation target of 2.5-5.5% by end-2012 turned to be unattainable and annual inflation in 2012 finished at 12.2%. The NBS raised the two-week repo rate, the main policy instrument, by 25 basis points in both January and February 2013, to 11.75%, in order to reduce strong inflationary expectations. Future prospects for monetary easing will depend on developments in the international financial markets and domestic budget execution. Over the medium term, interest rates should decline gradually, in line with decelerating inflation.

Figure 5: Inflation rate (in %)



Source: NBS, Economist Intelligence Unit

Figure 6: Trade balance (mil. EUR)



Source: NBS

### International Trade

The current account deficit was one of the key weaknesses of the macroeconomic environment before the 2009 crisis, reaching almost 23% of the GDP as a consequence of high domestic demand, strong dinar and low competitiveness of exports. The negative economic situation had some positive spillovers resulting in a decreased deficit from a fall in exports by an even greater fall in imports (see Figure 6). Furthermore, Serbian exports are heavily orientated towards the EU markets; therefore, the current recession in the euro zone means generally a less favorable outlook for export growth. However, there is still some cause for optimism due to a rise of production in the investments from the previous year, which should contribute significantly to exports increase. In addition, export-oriented services are expected to have a steady growth. The forecast of domestic demand remains moderate in the upcoming years, which will result in the current account deficit of about 7% of GDP on average in the 2013-2017 period.

### Exchange rate

The dinar depreciated continuously from 2008 onward (see Table 1). In the period from 2011 to 2012, the dinar depreciated in nominal terms by 8.7% against the EUR, and by 6.6% against the USD. Depreciation was partly driven down by euro zone troubles, as with other regional currencies, but also by domestic uncertainties which made it vulnerable to depreciation pressures.

Regarding future trends (see Table 2), the exchange rate of the local currency is expected to remain turbulent throughout 2013, reflecting the situation on the financial markets caused by the Greek as well as wider euro zone crises, and due to concerns about domestic fiscal policy developments. However, in the following period, 2013-17, the dinar is forecast to strengthen modestly in real effective terms.

Table 2: Forecasts of RSD/EUR exchange rates (RSD)

	2013	2014	2015	2016
Exchange rate (RSD/EUR, end)	121.4	114.7	113.7	113.3

Source: Economist Intelligence Unit

Table 1: Historical exchange rates against the key foreign currencies (RSD)

	Dinar exchange rates against the foreign currencies - end of period					Dinar exchange rates against the foreign currencies - period average				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
EUR	88.6	95.89	105.5	104.64	113.72	81.44	93.95	103.04	101.95	113.13
USD	62.9	66.73	79.28	80.87	86.18	55.76	67.47	77.91	73.34	88.12
CHF	59.4	64.46	84.45	85.91	94.19	51.42	62.2	74.88	82.9	93.83
GBP	90.86	107.26	122.42	124.6	139.19	102.25	105.5	120.28	117.49	139.62
SEK	8.08	9.34	11.77	11.7	13.22	8.46	8.85	10.82	11.28	13
JPY	69.66	72.21	97.28	104.18	100.07	54.39	72.19	89.14	92.12	110.46

Source: NBS

**Table 3: External debt of the Republic of Serbia, by type of debtor (mil. EUR)**

	2008	2009	2010	2011	2012
STOCK OF EXTERNAL DEBT	21,088	22,487	23,786	24,125	25,721
<b>LONG-TERM DEBT</b>	18,945	20,483	21,956	23,477	25,228
Public sector	6,503	7,762	9,076	10,773	12,187
of which: NBS debt under IMF Standby arrangement		1,110	1,529	1,618	1,389
of which: Government obligation under IMF SDR allocation		422	449	459	452
Private sector	12,442	12,720	12,880	12,704	13,040
Banks	2,201	2,597	3,362	3,782	3,672
Enterprises	10,241	10,123	9,518	8,922	9,369
<b>SHORT-TERM DEBT</b>	2,143	2,005	1,830	648	493
Public sector	18	1	0	0	0
Private sector	2,126	2,003	1,830	648	493
Banks	1,323	1,713	1,731	582	428
Enterprises	803	290	100	66	65

Source: NBS

### External debt

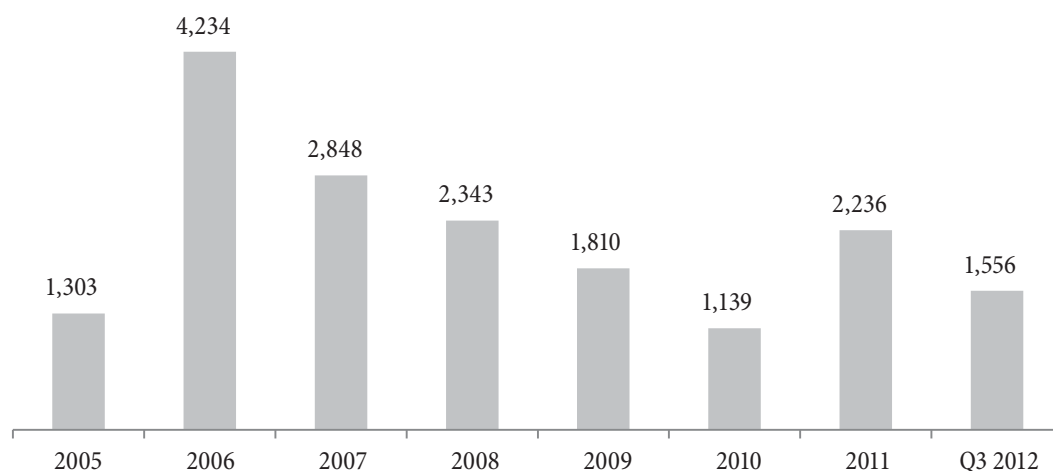
The external debt of the Republic of Serbia shows a constant upward trend (see Table 3), with the long-term debt accounting for the major part of it, with the private sector facing the greatest burden, especially enterprises. Although the private sector is the most indebted one, there is a clear and accelerating trend regarding the indebtedness of the public sector.

### Direct foreign investments

In the previous years, Serbia was very active in attracting foreign direct investments (see Figure 7). From 2001 to 2011, the total value of FDI was around 19.5 billion EUR. Companies from Germany, Austria, Italy, Slovenia and other EU member states are most common investors in

Serbia. Hence, economic development within the euro zone will influence future FDI inflows in Serbia. The largest investments were realized in the services sector, such as the financial industry, telecommunication and retail industry. On the other hand, in manufacturing, the highest stakes of investments were realized in the automotive and metallurgy sectors. Most of these investments were executed as privatizations of Serbian state-owned companies.

According to the national development plan, Serbia awaits future investments in the amount of 22.7 billion EUR until 2020, mainly in agriculture & food industry, energy, chemical industry and automotive industry, while the Government has the intention of providing strong support for the development of ICT and electronics industries, as well as textile. Obviously, trends for future

**Figure 7: Foreign direct investments by years (mil. EUR)**

Source: SIEPA, NBS, [11]



investments indicate that agriculture and labor-intensive industries might experience an increase in investments due to Government interest in lowering unemployment by providing attractive incentives to new investors.

### Serbian economy prospects

The total operating income of the top 300 Serbian companies was over 27 billion euros and the most profitable industries were construction materials, applied chemistry, food and beverage, telecommunication and IT (see Figure 8).

However, the Government strategy is to shift industry production from low value-added products to ones with higher value added. Also, its focus will be on support to export-oriented companies, further development of infrastructure and improvement of the climate for doing business in Serbia.

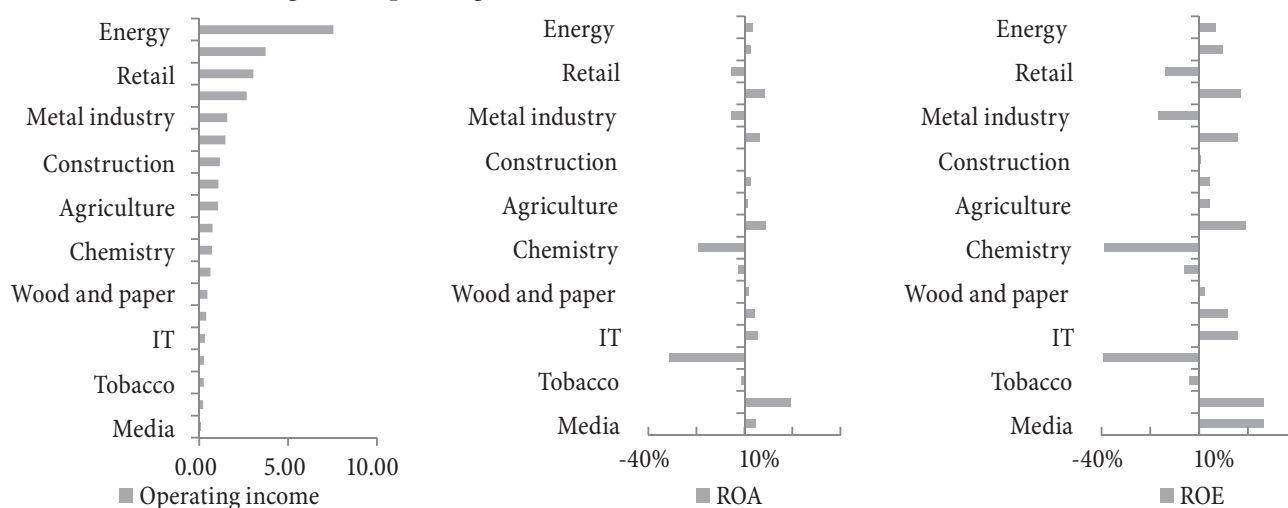
Despite this dedication to increasing the value added of domestic products, in the next decade, the Serbian economy will face the following challenges:

- *Dependency on FDI* – In order to ensure stable growth, Serbia will need to attract app. 2 bn EUR of FDI per year.
- *Promotion of export-related industries* – After a severe crisis in 2009, the Serbian Government realized that the GDP growth model based solely on services was not sustainable in the long run. Therefore, the Government focus should be on

strong support to export-related manufacturing industries such as the automotive industry, ICT and electronics.

- *Growth of the SME sector* – In 2011, SMEs accounted for approximately 33% of the national GDP, which is much lower than in EU member states (SMEs contribute up to 60% of GDP). One of the key agendas for the Government should be further promotion and support to SMEs so that they can truly become the backbone of the country's economy.
- *Large infrastructure projects* – Despite the fact that large-scale infrastructure projects were planned for the past decade, Serbia is still lagging behind in terms of infrastructure development. Therefore, in order to further upgrade the country's road and railway networks, roughly 4 bn EUR should be invested in their modernization over the coming years.
- *Resolving the problem of unprofitable state-owned companies* – In the past decade, Serbia has privatized most of its state-owned companies; however, in this process, there are a couple of large companies (systems) still available for privatization, which currently receive support from the Government, either through subsidies or sovereign guarantees. Eventually, the Government should retain its interest in their privatization, directly or through strategic partnership, where it is possible.

Figure 8: Operating income (in bn EUR), ROA and ROE in 2011 (in %)



Source: Serbian Business Registers Agency

## Banking sector overview

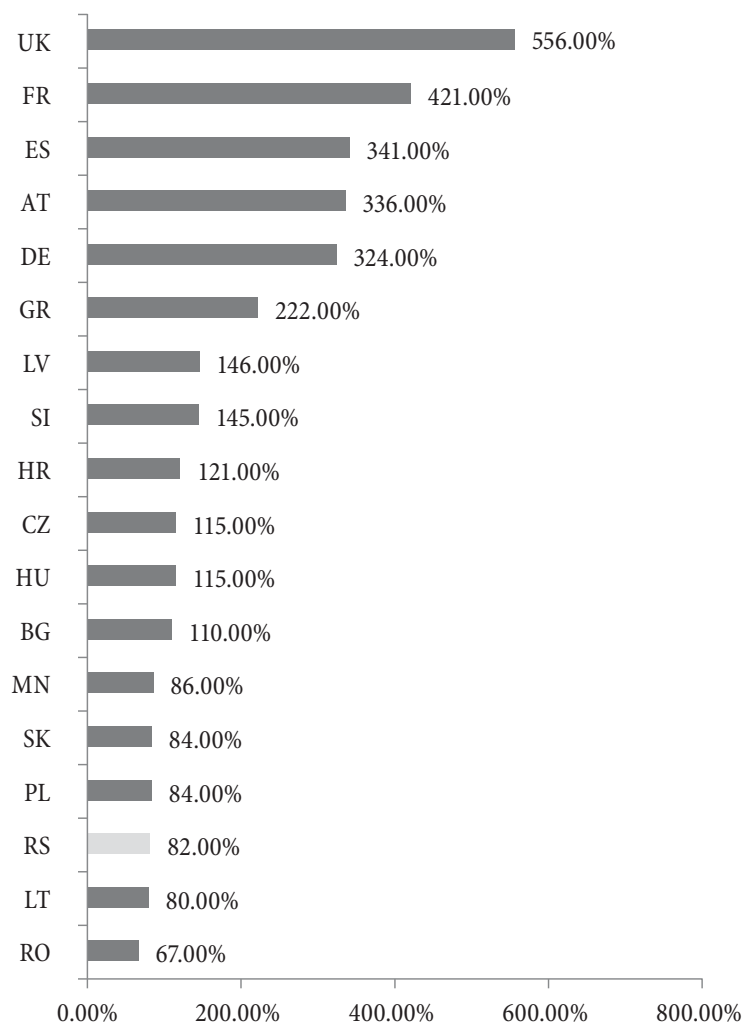
### Growth potentials

Recent years have proved to be an exercise in crisis management for Serbian banks. Asset quality has been under assault due to a deteriorating macroeconomic situation, which has hit banks via rising impairment charges. Although adjustments have been apparent as the banks trimmed headcount and closed some branches, this has proved not to be enough as profits have plummeted due to higher impairment costs.

However, although profitability is reduced for the time being, the long-term picture looks more positive. The capitalization of the sector is more than adequate, while the growth rate of the market is another cause for optimism; however, everything still depends on the recovery of the real sector of the economy.

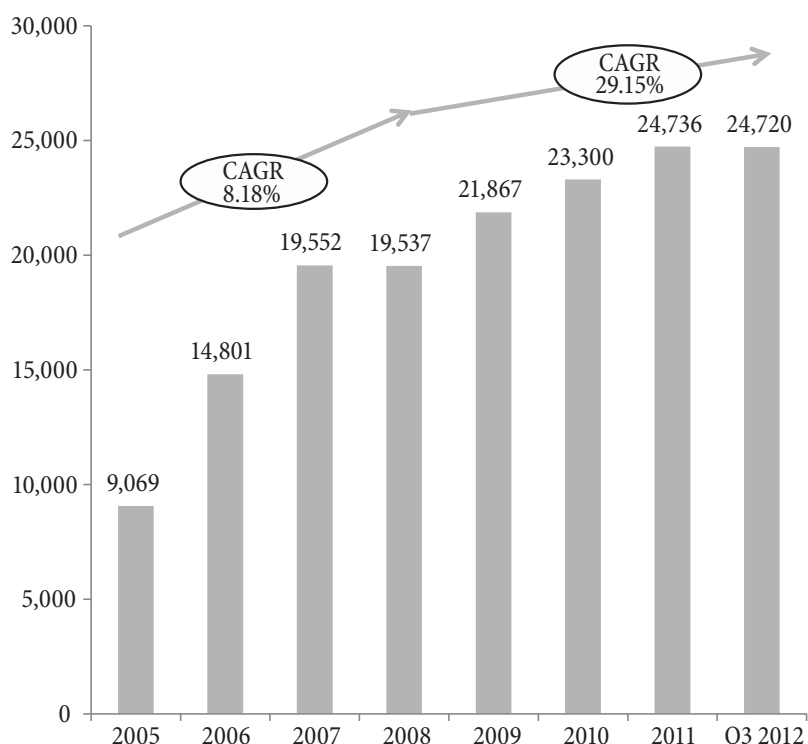
After immense growth from 2005 to 2008, the banking sector in Serbia continues to grow despite the financial crisis (see Figure 10). Contrary to the experience of most CE countries, where growth rates decelerated after the crisis, the pace of growth in Serbia continues to be brisk. Up to 2008, the assets of the banking sector expanded at an annual rate of over 29%. From 2009 to 2012, the assets grew, but at a slower pace (over 8% annually, on average). To some extent, this is a result of the sector’s still relatively small size, especially when the regional perspective is taken into account. The assets of the Serbian banking sector total around 82% of the GDP, placing the country among the less developed in the region and suggesting that its long-term prospects are positive (see Figure 9).

Figure 9: Bank assets to GDP in 2011 (%)



Source: Deloitte analysis, Eurostat, financial reports of banks

Figure 10: Total assets in mil. EUR



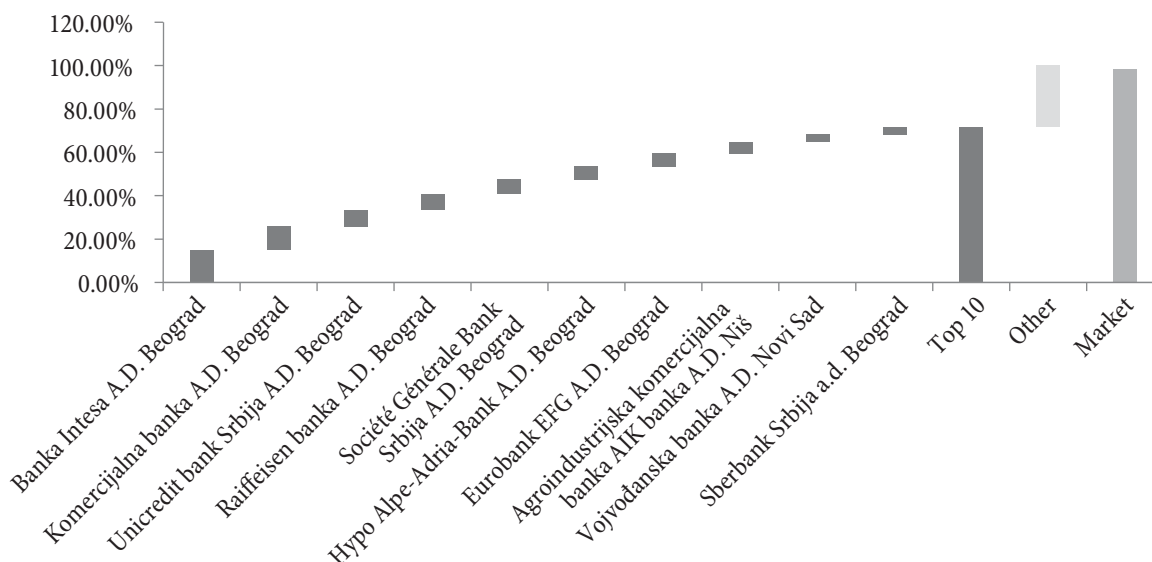
Source: Deloitte analysis, Eurostat, financial reports of banks

### Banking sector assets distribution

One of the major reasons for the unsatisfactory level of operational efficiency within Serbian banks is the level of concentration of the banking sector (see Figure 11). The top 10 banks held around 72% of the total banking assets in Q3 2012. Another 20 banks held the remaining 30% of the market (individually, less than 3% of market share).

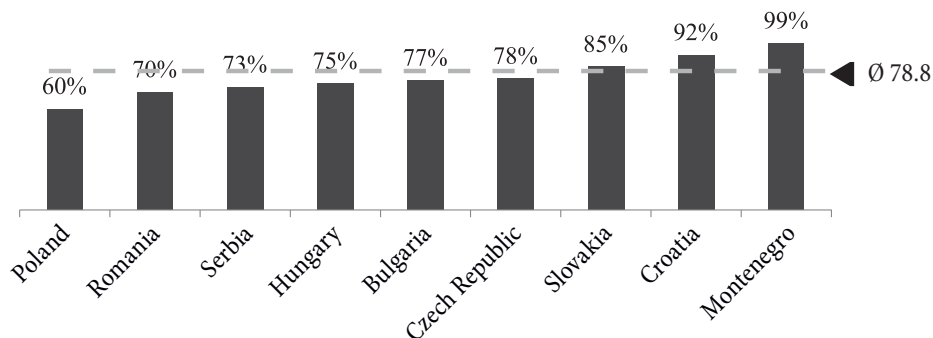
It is a shared feature of CE countries that their largest banks share a higher proportion of the market than the leaders in Western Europe. This strong market presence of the biggest players limits organic growth opportunities for smaller and new players, making mergers and acquisitions the primary route to gaining market share. Compared to other CE countries, the Serbian banking sector exhibits

Figure 11: Market share by assets – top 10 banks



Source: NBS, financial reports of banks

Figure 12: Assets of the top 10 banks in total assets, 2011



Source: NBS, ECB, Deloitte analysis, financial reports of banks

a lower level of concentration (see Figure 12). Hence, further market consolidation (mergers or acquisitions) can be expected in the upcoming years, especially taking into consideration merger trends of the parents' banks on the global market.

### Funding

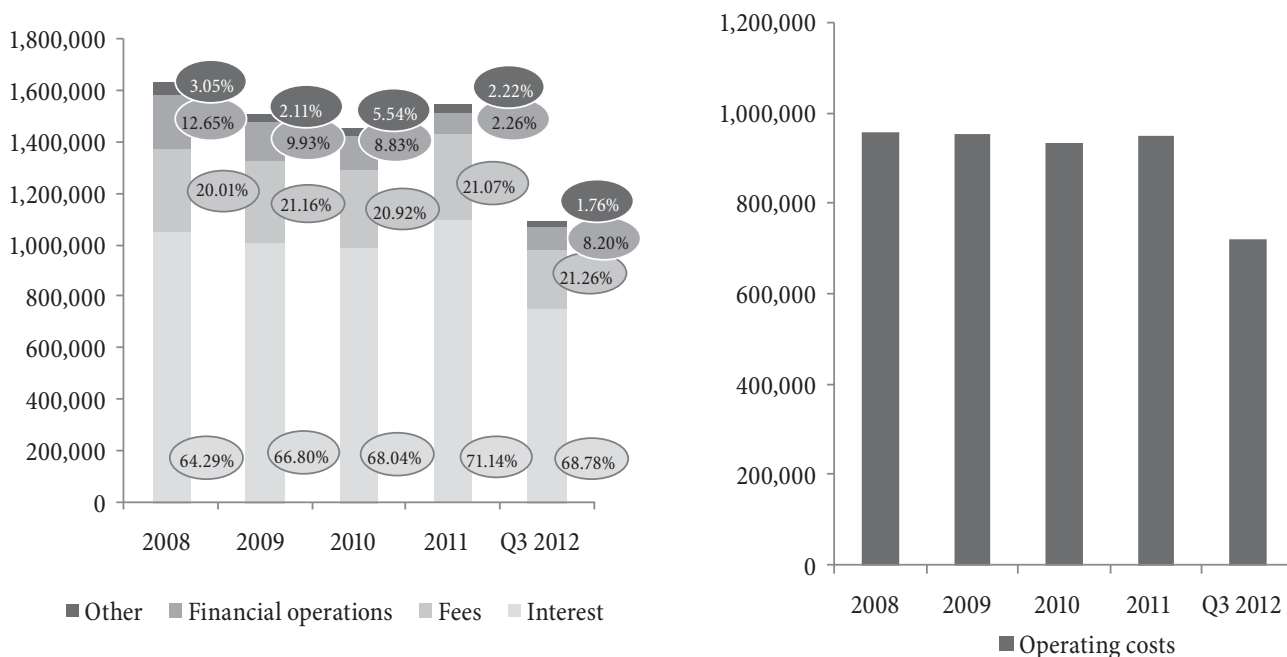
Deposits have been the cornerstone of Serbian banks' funding strategies over recent years (see Figure 13), contributing around 58% of liabilities (a slightly lower level than loans). After the initial hits of the global crisis, domestic banks were even more focused on further strengthening the deposit base (since they needed to repay credit lines which had been withdrawn from their parents' banks). The loan-to-deposit ratio, which in the past 5 years (2008-

2012) was around 130%, illustrates the cautious approach to liquidity management within Serbian banks. It also shows a conservative approach to funding and emphasizes banks' ability to fund themselves. On the other side, the self-funding capacity of Serbian banks can determine their growth rates in the upcoming years.

### Operational efficiency

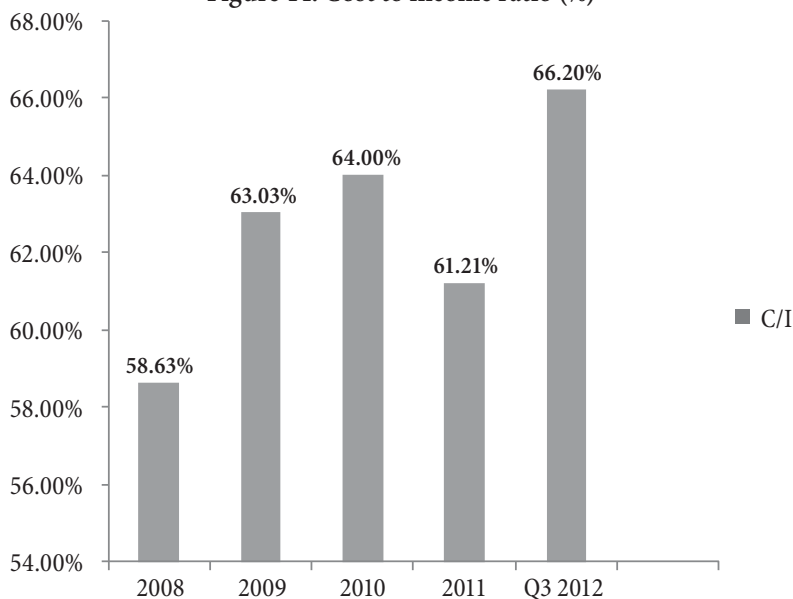
The efficiency of the banking sector has decreased in recent years. The cost-to-income ratio deteriorated from cca 59% to 64% between 2008 and 2010, as a result of sluggish income levels (see Figure 14). The short recovery seen in 2011 helped to improve the ratio, which fell back to 61%, while in 2012 the ratio worsened again, reaching 66%. Such development underlines the challenging banking

Figure 13: Income structure and operating costs (in 000 EUR)



Source: NBS, financial reports of banks

Figure 14: Cost to income ratio (%)



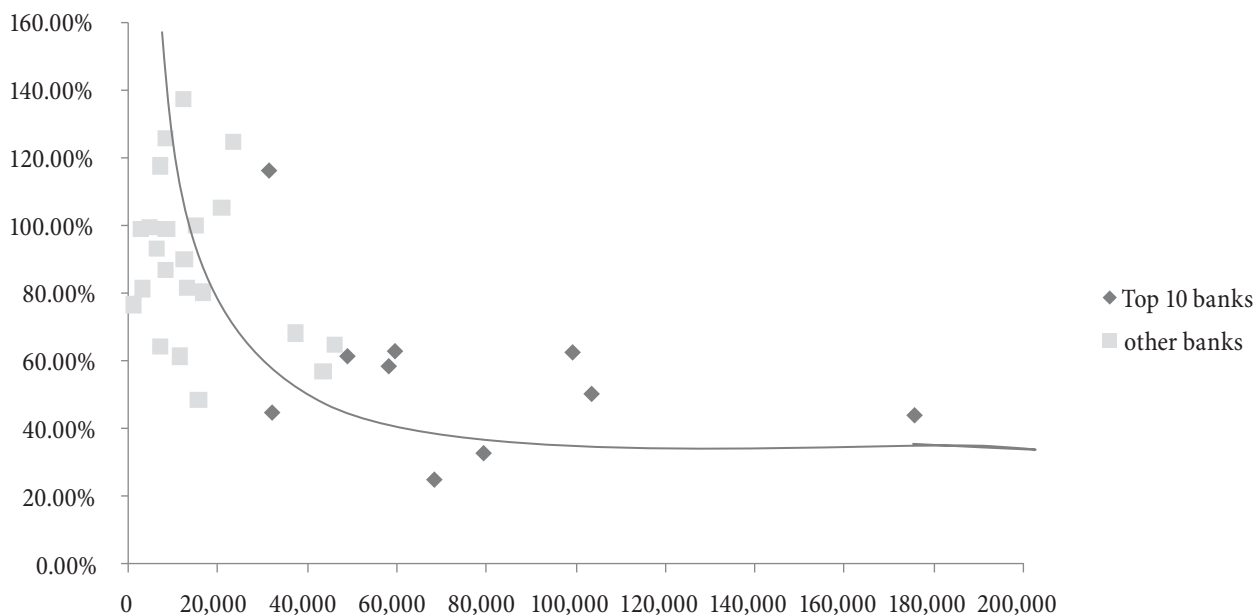
Source: NBS, financial reports of banks

environment, which is limiting the sector’s ability to grow its top line.

A comparative analysis with other CE countries reveals inferior productivity of the Serbian banking sector: assets per employee and net revenues per employee, amounting to EUR 889K and EUR 56K, respectively, are below the average for the region. The gap between Serbia’s personnel costs per head (EUR 14K) and the regional average (EUR 20K) is smaller than the corresponding gap in revenues (in Romania and Hungary, net revenues per employee are EUR 68K and EUR 122K, respectively).

This highlights weak Serbian banking sector productivity, even despite the sector’s decreasing number of employees. Bank by bank analysis shows that substantial benefits arise from a larger scale of operations (see Figure 15). Banca Intesa, the Serbian market leader, takes the top spot of the economies of scale. Yet, in general, the conclusion is that the rising trend of C/I ratio is mainly influenced by the drop in operating income – the chief driver of decline was the weaker contribution of financial operations, while net interest income and fees also contracted,

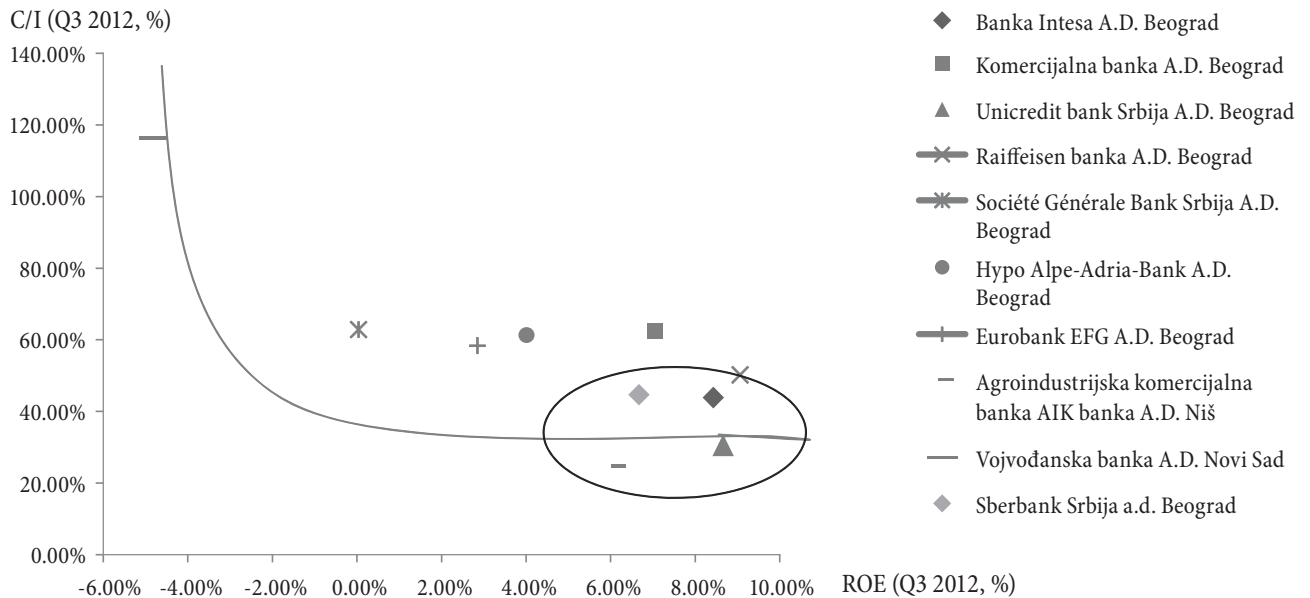
Figure 15: Cost-to-income ratio vs operating income



Source: NBS, financial reports of banks



Figure 16: Cost-to-income ratio vs ROE



Source: NBS, financial reports of banks

but to a lesser degree. Overall, the top line of the Serbian banking sector has recovered and remains driven by net interest income and fees on the back of growing assets.

Profitability

Lower cost to income appears to be directly correlated with higher profitability (see Figure 16).

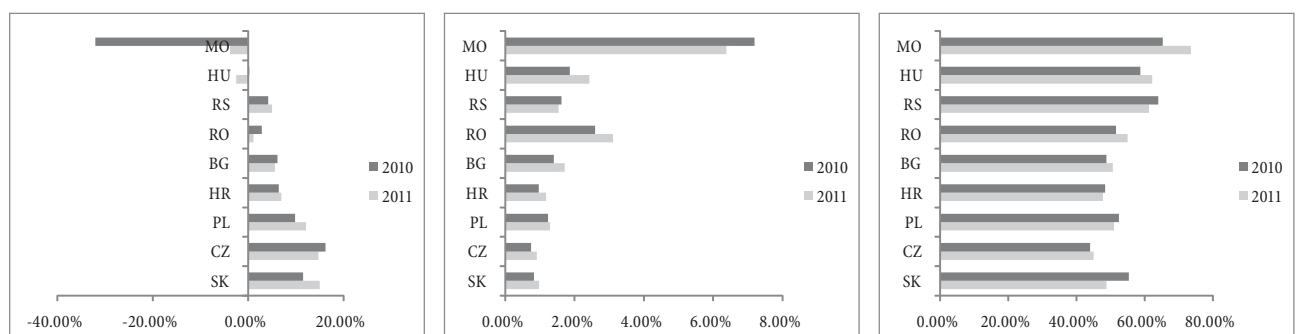
On the other hand, among CE countries (see Figure 17), Serbia is slightly below average in terms of the level of profitability, costs and risk.

Recent years have been demanding for Serbian banks as the negative impact of depreciating assets has hit profitability (see Figure 18). While there was a clear deterioration in the sector’s ability to generate net profit in the years immediately following 2008, banks still managed to deliver low, single-digit profitability. The final blow from rising provisions came in 2011 and 2012,

which wrecked the profitability of the banking sector. As a result, ROA and ROE both fell in Q3/2012, to 0.4% and 2.1%, respectively.

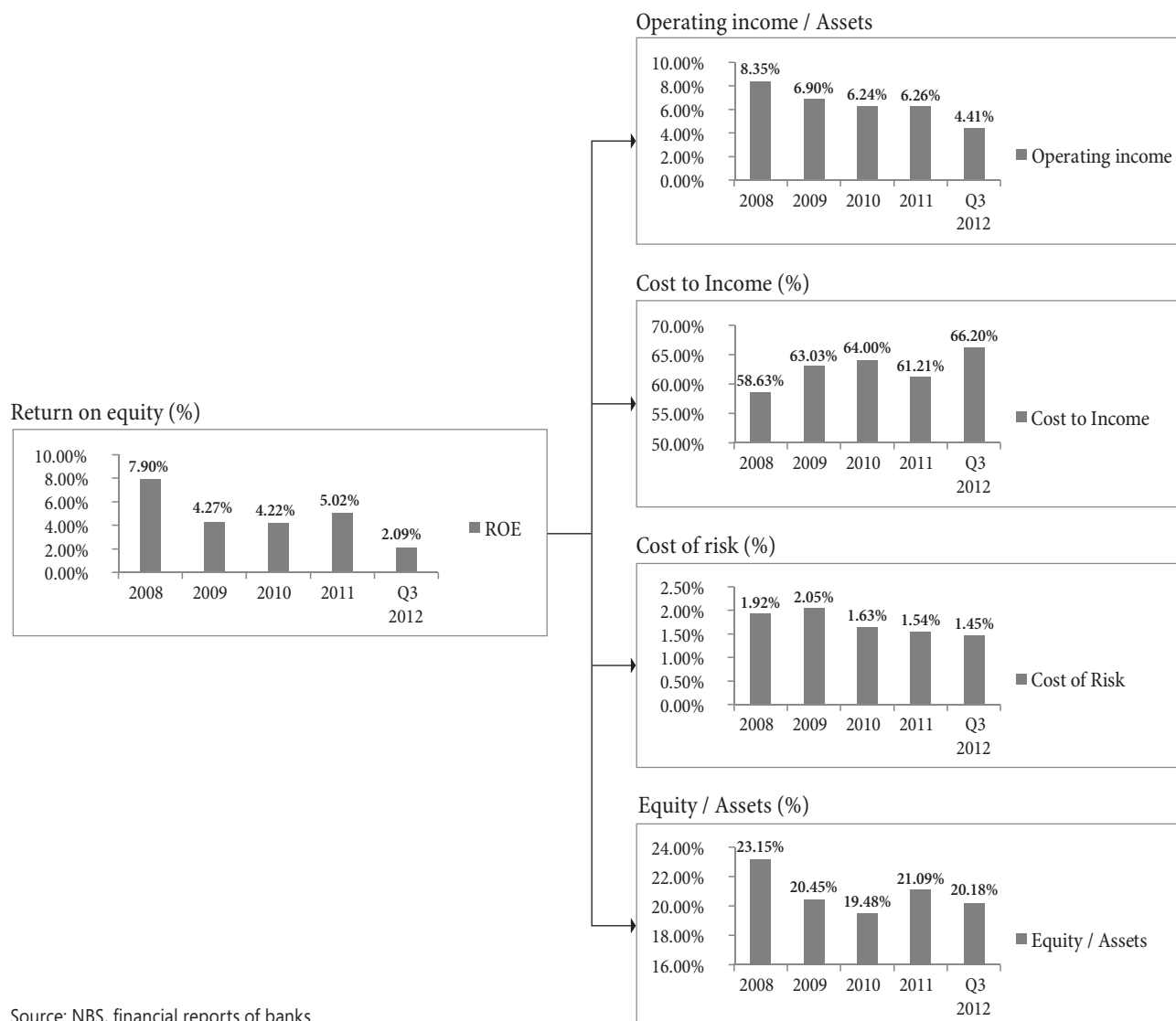
A comprehensive profitability analysis illustrates two negative trends: a) the cost of risk rose sharply, especially in 2011 and 2012 (a weak macroeconomic backdrop and slower loan book growth resulted in a strong increase in loan-loss provisions in 2011 and 2012, placing Serbia among those countries with the highest levels of provisions in the CE region, 2.5% CAGR from 2008 to 2011 – the deterioration is particularly evident when 2008 is taken as the base year: loan-loss provisions in 2011 were almost twice the 2008 level); b) revenue relative to assets contracted throughout the period at an annual rate of 8%. At the same time, cost-to-income ratio in the past 4 years was balancing around 62%, remained the same, causing profitability to fall.

Figure 17: ROE, cost of risk, cost to income in CE, 2011



Source: NBS, financial reports of banks, Deloitte analysis

Figure 18: ROE trend, in 2008-Q3/2012

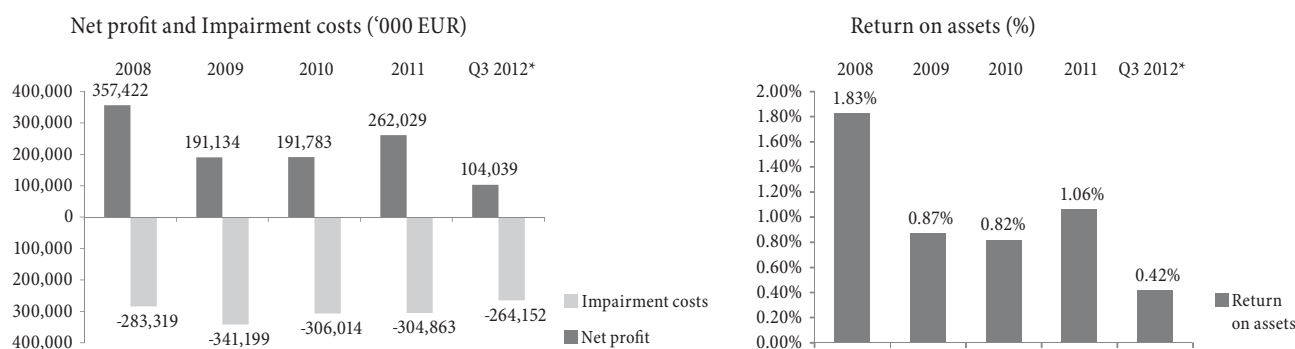


Source: NBS, financial reports of banks

Decreasing revenues and risk of impairment costs increase (see Figure 19) are the main threats to profitability in the upcoming years. However, on the other hand, equity-to-asset ratio at cca 20% enables a higher level of safety and

demonstrates the above-average capitalization of Serbian banks. Recovery of the economy, and consequently, the reduction in impairment costs should provide recovery in profitability of the Serbian banking sector.

Figure 19: Net profit and Impairment costs ('000 EUR) and ROA, in 2008-Q3/2012



Source: NBS, financial reports of banks

## Conclusion

After the first wave of the global crisis, in 2010 and 2011, the Serbian banking sector remained stable, largely owing to maintained vitality of the real sector of the economy due to a moderate recovery of FDI inflow, as well as the Government's program for mitigating the adverse effects of the global economic crisis, aimed at stimulating domestic demand (the GDP growth rate amounted to 1% and 1.6%, respectively). During 2012, the election year, the economy went into recession (the GDP growth rate was -1.7%), i.e. economic activity, FDI and the overall performance of the real sector of the economy declined, which, combined, had an impact on the banking sector as well:

- a) total banking assets growth decelerated (in the period 2005-2008, the average annual growth rate, in cumulative terms, amounted to 29.2%, while in the period 2009-2012, it was 8.2%);
- b) the loan-to-deposit ratio exhibited a downward tendency (from 137% and 141% in 2010 and 2011, respectively, to 128% in 2012), which indicates a deceleration in credit activity, while, on the other hand, it also testifies to local banks' conservative approach in financing the credit portfolio (predominantly from the deposit base);
- c) total deposits recorded a growth in the period 2010-2012 (11.7% in Q3 2012 against Q3 2011) and accounted for about 58% of total liabilities – retail deposits account for the highest proportion (about 58%); as regards the currency structure, foreign currency deposits prevail (about 77%); as regards the term structure, short-term deposits up to one year are dominant (about 94%), while retail savings account for about 49% of the total banking sector deposits;
- d) total loans recorded a decelerating tendency in the period 2010-2012 (the total loans growth rate amounted to 2.3% in Q3/2012 against 2011 and -0.8% in 2011 against 2010, while in 2010 against 2009 it was about 32%, and in 2009 against 2008 – about 24%) – loans to enterprises account for the highest proportion (about 1/2), followed by retail loans (about 31%) and those to the public sector (about 9%); as regards the currency structure, foreign currency loans prevail (about 75%), while, as regards the term structure, long-term loans over one year are dominant (about 62%);
- e) the cost-to-income ratio is on the increase (from about 58% in 2008 to about 66% in 2012), but owing to a decline in operating income (income from interests and charges), rather than an increase in costs;
- f) the amount of non-performing assets (“non-performing loans”/NPL), as a percentage of total loans, grew significantly – from 5.3% in 2008 to 19.9% in 2012; the business sector accounts for the highest share of NPL (59.5% of the total NPL in 2012), while the retail and public sectors account for 38.5% and 1.8%, respectively, of the total NPL in 2012 – the NPL coverage ratio worsened and amounted to 122% in Q3/2012, while it had been 128% in Q3/2011;
- g) return on equity (ROE), as well as return on assets (ROA), is on the constant decline (ROE from 7.9% in 2008 to 2.7% in Q3/2012, and ROA from 1.8% in 2008 to 0.6% in Q3/2012), and factors affecting such outcome are: increase in other operating expenditures on account of bad debt write-off, decline in net interest income, as well as increase in net expenditures on account of write-off of investments and provisions;
- h) the average monthly liquidity indicator for the overall banking sector was 2.10 in Q3/2012, which is considered satisfactory, in view of the regulatory minimum of 1, and the ratio of liquid assets to total short-term deposits indicates that term deposits with a term longer than one year still do not represent an attractive option for the existing and potential depositors;
- i) finally, conditionally speaking, a comprehensive indicator of banking sector portfolio quality or, better, a measure of the risk to security is capital adequacy. The banking sector capital adequacy ratio, which amounted to 16.40%<sup>1</sup> in Q3/2012 (it was

<sup>1</sup> From December 31, 2011, banks compute the indicator pursuant to the Decision on Bank Capital Adequacy, Official Gazette of the Republic of Serbia No. 46/2011.

19.9% in 2010 and 19.1% in 2011), as well as the proportion of equity (share) capital of about 21% in the total assets confirm the above-average capitalization of banks in the local market, i.e. the fact that, in the event of credit portfolio deterioration, solvency remains at a satisfactory level.

Notwithstanding all this, market concentration is high, but still lower than the average for CE countries – the top 10 banks hold about 72% of the market, in terms of total assets, which supports the position that the Serbian banking market is concentrated, i.e. that the number of banks currently operating is too great (32 banks), and that, in near future, further consolidation within the banking sector must be expected.

Earlier data indicate that banks' credit activity in post-crisis years has recorded a trend of deceleration, both in terms of scale and in terms of risk or conservatism in their approach, all of which is a result of economic recession. However, if banking sector performance is viewed from another perspective, although profitability exhibited a downward trend over the observed period, the long-term prospects are more positive. More specifically, capitalization of the banking sector is more than adequate, and the current share of banking sector assets in the GDP (about 82%) indicates that there is room for further growth (in Central Europe, this indicator amounts to about 140%, while in Western Europe it is higher than 300%, and in the UK it exceeds 500%).

All of the above gives rise to the conclusion that the banking sector has successfully absorbed the shocks of the global financial crisis so far and that there is no threat to banks' liquidity and solvency. Also, confidence in the banking system is stable. However, the main risk to banking sector financial stability and the influence of the monetary policy on the economy lies in the vitality of the real sector of the economy, i.e. in the economic policy makers' activities/measures aimed at reviving economic activity in the forthcoming period.

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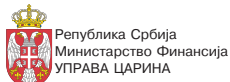


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# MAŠINOPROJEKT KOPRING

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Sa preko 60 godina kombinovanog iskustva u projektovanju i svim tehničkim strukama pod jednim krovom, Mašinoprojekt je jedna od retkih kuća koja je u mogućnosti da svojim klijentima pruži sveobuhvatnu uslugu, od urbanizma do upotrebne dozvole. Kao kompanija sa dugom tradicijom izradio je veliki broj složenih projekata za različite vrste objekata – od javnih (rezidencijalnih, hotelskih, poslovnih, zdravstvenih, kao i objekata od naročito kulturnog značaja), do objekata za namene prehrambene industrije, metalurgije, metaloprerađivačke industrije, bazne i prerađivačke hemijske industrije, prerade nafte, prerade nemetalnih minerala i farmacije.

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- godišnji proseki projektovanja: 500.000+ m<sup>2</sup> najsloženijih objekata
- spovođenje tenderskog procesa za izbor najpovoljnijeg izvođača
- ishodovanje svih potrebnih uslova, saglasnosti i dozvola na tehničku dokumentaciju
- stručni nadzor
- upravljanje procesom izgradnje

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- društveno i ekoloski odgovorno
- godišnji prosek projektovanja: 5
- spovodenje tenderskog procesa
- ishodovanje svih potrebnih uslo tehničku dokumentaciju
- stručni nadzor
- upravljanje procesom izgradnje