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DO THE BEST-PERFORMING SERBIAN COMPANIES CREATE VALUE?*

Da li najbolja preduzeća u Srbiji kreiraju vrednost?

Abstract

All investors expect to earn a return on invested capital in accordance with investment risk. With respect to the degree of exposure to risk, shareholders are in the most unfavorable position in comparison to all other stakeholders. Given that shareholders' return is closely related to net income, as it represents the residual which remains after the interests of all other stakeholders have been meet, it is obvious that there is a risk that they might not get any return in situations where there is no income or it is not sufficient to compensate for the existing risks. In this context, from the perspective of value creation management the ultimate responsibility of a company's management is to create value for all stakeholders, including shareholders. With the aim of satisfying the interests of shareholders it is necessary to raise the performance threshold to the level of net income that would be sufficient to cover the opportunity costs of equity. Only then can we say that companies are really profitable and that each of them whose income exceeds this level (at which the total costs of capital are covered) creates value added.

The value creation imperative is of particular importance in the Serbian economy, considering that over the entire analyzed period, on average, 34.4% of companies reported losses, 8.4% of companies had income that was equal to zero, while only 57.2% of the total number of companies reported net income. In such circumstances, there is a tendency for every company that reports net income to be labeled as profitable. However, it makes perfect sense to raise the question as to whether all the companies which report net income create value. In this paper we analyze the 89 most profitable companies in terms of the amount of net income. The relevance of the research arises from the fact that these companies generated more than 45% of total net income of the economy in 2013. In the first part of the paper we present the business and financial profile of the Serbian economy in order to provide a general understanding of the financial problems faced by most companies. In the second part we explore the key determinants of profitability with a view to identifying the key value drivers and their impact on the level of profitability. In the third part of the paper the performance of the best Serbian companies is assessed from the standpoint of their ability to create returns to shareholders by applying residual income as the main criterion. Such an approach has enabled us to differentiate companies and sectors in terms of their capacity to create value added as well as to detect the companies that are responsible for the destruction of value.

Key words: *investors, value creation, income, risk, return, opportunity costs, cost of capital, financial leverage, residual income*

Sažetak

Svi investitori očekuju ukamaćenje uloženog kapitala u skladu sa rizikom ulaganja. U pogledu stepena izloženosti riziku vlasnici se nalaze u najnepovoljnijem položaju u odnosu na sve druge interesne grupe. Budući da se prinos vlasnika vezuje za neto dobitak, kao rezidual koji preostaje nakon podmirenja interesa svih drugih stejkholdera, očigledno je da postoji rizik da oni ostanu bez prinosa u situacijama kada dobitka nema ili kada on nije dovoljan da kompenzuje prisutne rizike. U tom kontekstu, upravljanje procesom kreiranja vrednosti predstavlja ultimativni zahtev menadžmentu da stvori vrednost za sve interesne grupe, uključujući i vlasnike. Uvažavanje interesa vlasnika zahteva podizanje praga uspešnosti na nivo neto dobitka koji je dovoljan da pokrije oportunitetne troškove vlasničkog kapitala. Tek tada možemo reći da su preduzeća uspešna i da svako od njih koje stvara dobitak preko tog nivoa (pokrića ukupnih troškova kapitala) stvara dodatu vrednost.

Imperativ stvaranja vrednosti ima poseban značaj u srpskoj privredi gde u proseku u celom analiziranom periodu 34,4% preduzeća iskazuje

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gubitke, 8,4% ima rezultat jednak nuli, dok samo 57,2% od ukupnog broja preduzeća posluje sa dobicima. U ovakvim okolnostima, postoji sklonost da se svako preduzeće koje iskazuje neto dobitak oceni kao uspešno. Međutim, pitanje koje se može opravdano postaviti je da li sva preduzeća koja iskazuju dobitke kreiraju vrednost. U ovom radu analiziramo 89 najuspešnijih preduzeća sa stanovišta visine neto dobitka. Relevantnost istraživanja određena je činjenicom da ova preduzeća ostvaruju više od 45% ukupnih neto dobitaka cele privrede u 2013. godini. U prvom delu rada prikazan je poslovno-finansijski profil srpske privrede, kako bi se stekla opšta predstava o finansijskim problemima sa kojima se suočava najveći broj preduzeća. U drugom delu rada istražene su ključne determinante profitabilnosti, kako bismo otkrili ključne pokretače vrednosti i njihov uticaj na visinu iskazane profitabilnosti. U trećem delu rada izvršena je procena uspešnosti najboljih srpskih preduzeća sa stanovišta njihove sposobnosti da stvaraju prinose za vlasnike, pri čemu smo kao kriterijum koristili rezidualni dobitak. Ovakav pristup omogućio nam je da diferenciramo preduzeća i sektore sa stanovišta njihove sposobnosti da stvaraju dodatu vrednost i da lociramo kompanije koje su odgovorne za uništavanje vrednosti.

Ključne reči: *investitori, kreiranje vrednosti, dobitak, rizik, prinos, oportunitetni troškovi, troškovi kapitala, finansijski leveridž, rezidualni dobitak*

Introduction

The Serbian economy is operating under very complex conditions. In the analyzed period business environment was characterized by low or negative GDP growth rates, high inflation rates until 2012, rising unemployment (greater than 20%), budget deficit, high level of debt, and high corruption levels. The above-mentioned trends negatively affect consumption and, consequently, economic activity of the national economy. A low level of competitiveness prevents the increase in exports which, along with reduced domestic demand, hinders the growth prospects.

The capital market is underdeveloped and completely marginalized. There is little hope that significant improvements could be made in this area, primarily due to the lack of institutional support and well-articulated strategy of development, as well as insufficient awareness of its importance for the functioning of the national economy. The absence of alternative sources of financing, such as long-term and short-term debt financing, distorts competition in the financial market, thus leading to an increase in the cost of capital. In this regard, perhaps most worrying is the fact that there is no understanding of the relationship between the corporatization of an economy and development of the capital market. Without a developed capital market, it cannot be expected that large joint-stock companies become a major factor of economic growth, since they raise capital mainly in the capital market. On the other hand, development of the capital market is not possible without financially strong joint-stock companies which, by issuing high-quality stocks and debt instruments in the primary market, provide securities that will be traded in the secondary market.

High key policy rates over a long period of time had an adverse impact on the cost of borrowed capital paid by companies. Even the economies which are far stronger than the Serbian economy would not be able to bear the financial expenses that in some years exceeded 20%. Such substantial costs of financing were largely responsible for very low or negative returns on equity, which prevented investors from achieving required returns [15, pp. 401-416]. A common practice according to which the returns to creditors are higher than the returns to shareholders cannot be economically viable in the long run, since shareholders bear greater risk than creditors. In order to obtain expensive loans, companies often overestimate their assets with the aim of providing the required collateral for debts and, by doing so, they create misleading perception of their financial position. Taking advantage of the lack of alternative sources of financing, credit institutions deliver better performance in the short term, but also expose themselves to the danger of suffering negative consequences of such behavior. The accumulation of non-performing loans in the banks' balance sheets leads to contamination of their assets. Inefficiencies in collateral management, on the one hand, and a significant decline in the value of collateral as soon as a company files for bankruptcy on the other, increase risk of loss. A lack of sources of financing that could be provided under acceptable terms causes a slowdown in growth and drop in economic activity.

In addition to the foregoing tendencies, there are also other negative phenomena that impacted on the creation of business environment. Let us mention the delay in the restructuring of public companies accompanied by poor-quality corporate governance and huge financial difficulties which had spillover effects on the rest of the economy [9, pp. 33-56], absence of significant investments in key infrastructure sectors, such as telecommunications, energy and transport, which could invigorate other parts of the economy and considerably contribute to GDP growth [14, pp. 7-42], substantial subsidies to companies in restructuring which put a heavy burden on the budget and increase public debt, worsened conditions for doing business[1] (in terms of the time required to start a business, length of dealing with construction permits, registering property, protecting the interests of minority shareholders, paying taxes, resolving insolvency, etc.), low purchasing power which limits consumption and has negative effects on the level of economic activity, lack of foreign direct investments that could foster the growth of exports and GDP, and so on. The instability of regulations that is manifested in frequent changes in the most important laws (e.g. Law on Companies, Law on Accounting and Auditing, Law on the Capital Market, etc.) brings uncertainty and additionally discourages investors.

Numerous research studies have confirmed that the Serbian economy is fraught with losses and big structural disorders. This situation is an issue of great concern given that the economic activity should contribute to achieving the projected rates of GDP growth. The problem appears to be far more acute if we bear in mind that through defaulting on their obligations poorly performing companies also burden the healthy parts of the economy. In this paper we will first briefly present business and financial profile of the Serbian economy in order to gain an insight into the levels of operating and financial risks faced by Serbian companies. Then the analysis will be focused on the assessment of the performance of the most profitable companies in Serbia in terms of achieved net income.

Business and financial profile of the Serbian economy

The environment in which companies perform their activities in Serbia cannot be characterized as business-friendly. Also, the fact is that the great financial crisis has further hampered business operations. In the period from 2009 to 2013, there was a decrease in the number of companies (from 94,573 to 94,362), reduction in the number of employees of 7.6%, faster growth in liabilities (35.4%) than in net capital (28.1%), dramatic rise in cumulative losses amounting to 73.2%, with reported net losses being higher than reported net income in every year except in 2011 [16, pp. 323-347].

The consequences of huge structural disorders of the Serbian economy are reflected in failure to settle current liabilities on a regular basis (liquidity crisis), inability to pay interest and repay principal (solvency crisis), absence of expected returns to shareholders (profitability crisis), and decline in competitiveness of the Serbian economy (competitiveness crisis). These problems are so closely intertwined and need to be tackled at the same time in order to identify the underlying causes of poor performance of the Serbian economy. Key indicators of liquidity, solvency and efficiency are shown in Table 1.

Structural disorders are visible in every segment. Due to a constant threat of bankruptcy, illiquidity has often been viewed as the most urgent problem of the Serbian economy. Maturity mismatch between some items of assets and liabilities, as can be seen from the values of current ratio and quick ratio, makes it almost impossible to align cash inflows with cash outflows. This is further confirmed by the fact that the values of cash flow from operations (CFO) to current liabilities ratio are far away from its normal value of 0.4. If we take into consideration the research studies [3, pp. 384-401; 4, pp.61-66] that have shown that most of the companies with a value below 0.4 go bankrupt, we can gain a fairly clear idea of the gravity of illiquidity problem in the Serbian economy. In such circumstances, companies are forced to dump a great deal of burden of the financing of their business cycles onto suppliers. Small positive values of cash cycles (indicating that in the analyzed period a business cycle had to be financed by borrowing averagely about 19 days) are not a result of the efficient management of accounts receivable and inventory, but rather of an inappropriate delay in paying off accounts payable. Suppliers, mostly due to an inefficient collection of their own receivables,

1 There has been a significant progress in this segment, since in terms of the ease of doing business Serbia is now ranked in 59th place. See A World Bank Group Flagship Report, Doing Business 2016, Measuring Regulatory Quality and Efficiency, International Bank for Reconstruction and Development / The World Bank, Washington, 2016. p. 5. http://www.doingbusiness.org

Table 1: Indicators of financial positions

	Liquidity	Solvency	Efficiency	Investment Opportunities
	Current ratio	Fixed Asset Coverage Ratio	Fixed Asset Turnover	CAPEX Ratio
2009	0.97	0.65	0.67	(0.40)
2010	0.97	0.62	0.71	(29.12)
2011	0.96	0.66	0.71	14.24
2012	0.97	0.64	0.70	(9.13)
2013	0.92	0.62	0.68	45.39
	Quick ratio	Debt to Equity Ratio	Inventories Turnover	Internal Growth Rate
2009	0.60	1.59	4.33	(1.47)
2010	0.61	1.83	4.56	(1.76)
2011	0.60	1.51	4.68	0.15
2012	0.61	1.68	4.68	(1.84)
2013	0.60	1.73	4.59	1.11
	CFO/Current Liabilities	Interest Coverage Ratio	Receivables Turnover	Sustainable Growth Rate
2009	(0.00)	0.71	3.73	(3.66)
2010	(0.03)	0.77	3.82	(4.77)
2011	0.05	1.19	3.94	0.41
2012	(0.01)	0.76	4.06	(4.77)
2013	0.05	0.98	3.90	3.00
	Cash Cycles	Deficiency NWC (NWC/Total Asset)	Payables Turnover	Financial Leverage Effect
2009	18.61	16.32	2.23	(0.86)
2010	22.45	17.22	2.38	(0.60)
2011	22.57	16.42	2.46	0.45
2012	20.86	16.36	2.48	(0.53)
2013	12.09	17.84	2.27	(0.19)

Source: Author's calculation

cannot close their cash gap, which creates the need for short-term borrowing. Consequently, the illiquidity problem takes on the effect of spiral, which means that illiquidity is likely to hit even the healthy parts of the economy [11, pp. 41-62].

Illiquidity problems are closely followed by insolvency problems, revealing the magnitude of structural problems. Operating losses lead to a reduction in capital. In order to provide necessary sources of financing, companies are forced to use expensive loans, which results in an increase in their debt. Low level of interest coverage ratio (values are more than five times lower than the normal value) suggests that there are increased risks of failing to meet obligations to creditors. A significant deficiency in net working capital (NWC) confirms that a considerable portion of long-term assets and inventory (around 17%) was wrongly financed from short-term sources. Low values of turnover ratios point to the inefficient management of assets and liabilities, which further deepens liquidity and solvency problems. Under these circumstances, financial risks are growing.

Given the scarcity and high costs of external sources of financing as well as the lack of internally-generated sources of financing, the question arises as to how to fund new investments. In the conditions where there is a low volume of activity, profitable investments seem to be the only remedy that can create space for larger profit margins, which afterwards could be used to cover the costs of financing. However, low growth rates and low CAPEX ratio point to the impossibility of making serious investments. Financial leverage that we classified as an indicator of investment opportunities, which is a bit unusual, clearly reveals that the funding from borrowed sources is unsustainable under such circumstances, as it not only fails to contribute to the creation of value, but rather leads to its decrease.

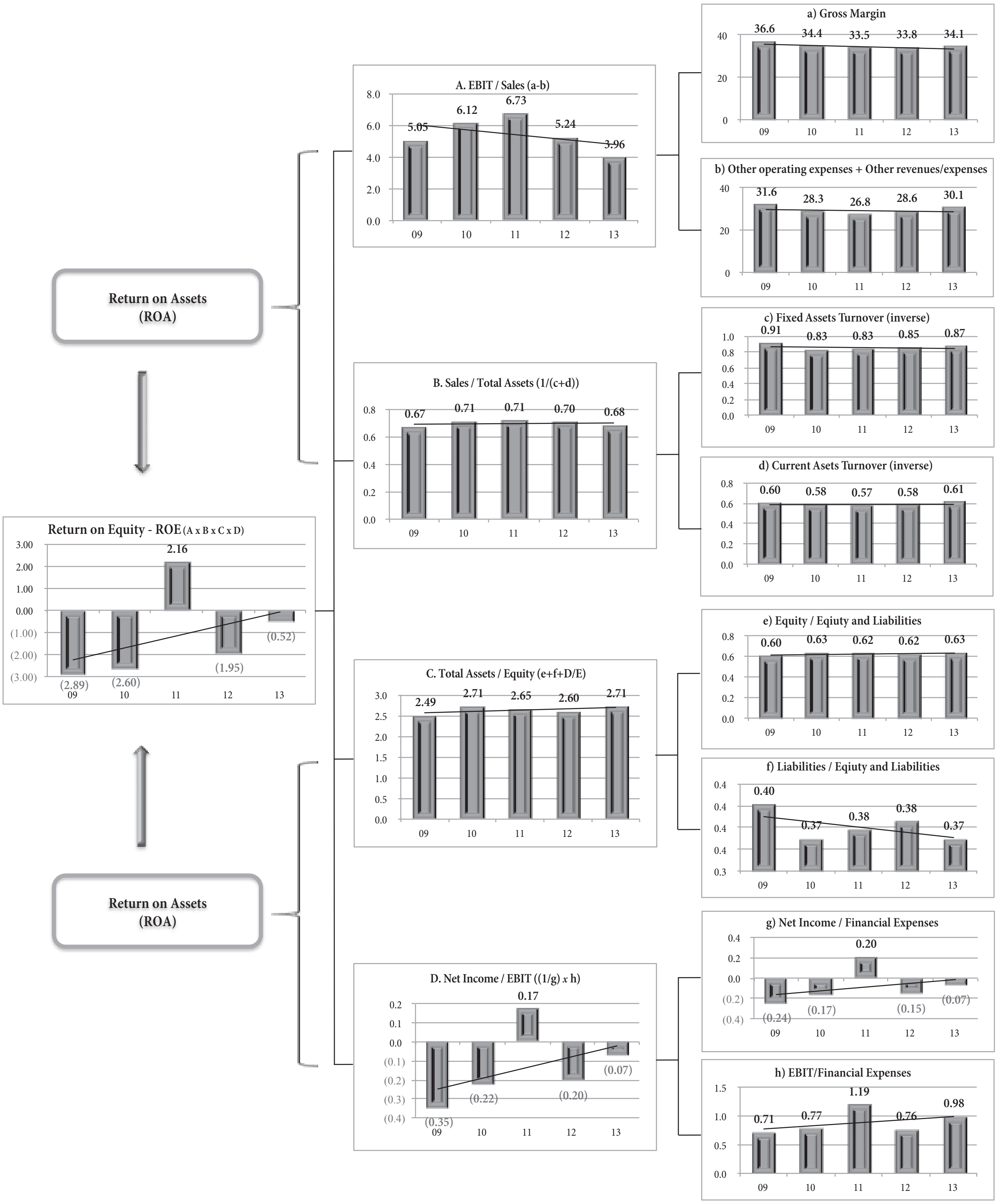
Sustainable growth is possible only by maintaining a desired or target capital structure, which calls for some combination of internal and external sources of financing [12, pp. 98-119]. One of the key preconditions for this is profitability, since only profitable companies can generate internal sources of financing. Moreover, unprofitability causes problems with regard to liquidity, solvency and a fall in employment. Hence we could say that unprofitability and lack of competitiveness (which prevents companies from achieving a larger market share and high profit margins) are the greatest problems for the Serbian economy. With the aim of providing a general understanding of the profitability of Serbian economy we will present return on equity and key determinants of this performance indicator (see Figure 1).

Profitability depends on numerous factors, such as investment attractiveness of a country (resource endowment, development level of financial and technological infrastructure, quality of institutional and regulatory framework, openness to international trade and access to markets), industry structure (intensity of competition, threat of new entrants, threat of substitute products, bargaining power of buyers and suppliers), and a company's characteristics (quality of organizational structure, product quality, relationships with suppliers, distributors and customers, availability of knowledge that allows a company to maintain the existing and gain new competitive advantages) [7, pp. 495-498]. However, profitability also depends on the management's ability to skillfully combine intangible, tangible and financial resources in order to gain competitive advantages which would enable it to, by seizing opportunities and avoiding threats, finally create shareholder value.

The trend in return on equity (ROE) clearly indicates that the Serbian economy is not profitable. Net losses were reported in four of the five observed years, while in 2011 (the only year in which there was net income) ROE amounted to only 2.2%. In general, we can conclude that unprofitability of the Serbian economy is a consequence of low profit margins, low levels of turnover ratios, growing debt and huge burden of financial expenses. The main causes of such trends can be discovered by disaggregating ROE to the level of drivers. *First,* due to low profit margins generated revenues do not suffice to cover exceptionally high financial expenses. The key reasons include technical and technological obsolescence of assets that cannot produce higher revenues as well as the lack of competitive products and pricing, which leads to a volume of activity that is not sufficient to cover both variable and fixed expenses (operating and financial). *Second,* when there are limitations on the revenue side, low profit margins could be increased through efficient cost management which involves the application of modern management techniques. Low profit margins (gross margin and EBIT margin) indicate that managers could not handle them well enough. *Third*, the efficiency of asset management is also at a very low level. This fact, among other things, reveals that the existing assets cannot produce adequate revenues and that there is an urgent need for new investments. Negative trends in this area are a matter of great concern. *Fourth,* return on assets – ROA (EBIT margin multiplied by asset turnover), as a test of efficiency in core business and measure of a company's ability to repay debts, confirms that the quality of operations management is quite unsatisfactory. *Fifth,* the level of indebtedness is increasing which, in combination with insufficient profitability, is a sure sign of serious financial difficulties. *Sixth,* a trend in interest burden confirms that borrowing is happening in the conditions where the costs of debt are higher than generated returns, which does not contribute to an increase in return of equity, but rather leads to its reduction. Negative financial leverage (the product of solvency ratio and interest burden), together with low values of ROA, determines the levels of ROE. The Serbian economy had a positive interest burden only in 2011, while the negative values of this ratio in all other years mean that shareholders did not get any return on their investment. The value of interest burden in 2011 amounted to only 0.17 (0.2), which implies that, in that year, from RSD 100 of EBIT (belonging to owners and creditors) only RSD 17 belonged to shareholders, whereas the rest went to creditors. Considering the fact that shareholders bear the greatest risk and, accordingly, expect to receive the highest returns, it becomes pretty clear to what extent the Serbian economy is inhibited by antagonisms and how much it is (un)attractive for investors.

Of course, based on all of the forgoing findings one certainly should not draw a conclusion that all companies are in the same position. The fact is that in the analyzed period, on average, 34.4% of companies made losses, while 8.4% of companies reported net income which was equal to zero. Yet, it is also true that 57.2% of companies which reported positive net income did not manage to create the amounts of income that would exceed losses generated by the rest of the economy. This finding raises a provocative dilemma over the real profitability of the

Figure 1: Profitability analysis of the Serbian economy



Source: Author's calculation

Serbian companies that reported net income. It is of utmost importance to resolve this dilemma because there is a tendency that every company that reports net income is being automatically labeled as profitable. This practice is chiefly due to the fact that the opportunity costs of equity are ignored because they do not constitute an integral part of the financial statements that are subject to analysis, which means that we are faced with unsustainable situation where creditors' returns are greater than shareholders' returns. Performance standards must be elevated to a more demanding level, which implies that created return must be sufficient to ensure that shareholders get required returns from generated income.

Determinants of profitability as drivers of the value creation process

Profit generation is the main driving force in market-oriented economies. Therefore, profitability is quite often referred to as the supreme criterion when evaluating the performance of companies and national economies. The companies' ability to generate profits is a prerequisite for their functioning, since only by generating profit they can survive, i.e. maintain an adequate level of invested capital and, finally, ensure the healthiest source for funding their growth. Moreover, it is equally important to note that profit is a key variable in efficient allocation of capital, as its amount gives investors the signal indicating to what extent companies are attractive for new investments. The same holds true when considering the level of overall economic activity of national economies. Here the profit provides the basis for an increase in wealth of the whole society. The prospects of making profitable investments determine whether an economy is more or less attractive for foreign investment, either through the establishment of new or the takeover of existing companies. Furthermore, profitability is directly linked to economic development, growth rates and job growth, just as a lack of profitability causes the problems with liquidity, financial security and funding, which eventually cause the deterioration in companies' performance and reduction in employment.

In some of our earlier research studies we dealt with more detailed analysis of reduced profit potential of the whole economy and individual sectors [13, pp. 335-351; 15, pp. 401-416]. In this paper we explore the position of the most profitable companies according to the amount of net income. There is a need for this kind of analysis, if for no other reasons than because the companies which report income are very often easily proclaimed to be profitable, even though the opportunity costs of equity are commonly being ignored or overlooked, as they are not the part of the financial statements being subject to analysis. To overcome this problem, it is necessary to raise the criteria of profitability to a much higher level and to examine to what extent generated income can cover the required shareholders' returns. In this regard, our research was limited to a sample of 100 companies which, according to the Serbian Business Registers Agency, reported the highest amounts of net income in the period 2009-2013, but we were forced to exclude 10 companies due to the unavailability of financial statements for all years as well as the Share Fund (Akcijski fond), whose core business is substantially different in relation to the rest of analyzed companies. Also, owing to the problem of incompatibly of balance schemes caused by the new Law on Accounting, we were forced to close the observed period with 2013, instead of 2014.

A cursory glance at the summary income statement of the group of the best-performing Serbian companies in terms of the amount of net income (BC Group) reveals that there is an upward trend in operating income achieved by these companies in the sphere of the so-called 'core business', with the operating income in the last year of the observed period being more than four times higher compared to the first year. Bearing in mind the characteristics of internal and external environment of these companies, at the very beginning we can say that such results seem very encouraging. A similar trend continues when it comes to the companies' net income after taxes. In this regard, it should be particularly noted that a substantial increase in net income occurred at the end of 2010 (net income was three times higher relative to 2009), during 2011 and 2012 it continued to grow at a moderate pace, while the end of the analyzed period was marked by its re-intensification. Of course, if the sample of selected companies was decomposed by sectors, the picture of the performance of these companies would be significantly different. We can notice that the worst performers are the companies from the energy sector, while the best performances are achieved by the companies coming from the processing sector, mining sector and telecommunications.

Naturally, such an analysis is far from being sufficient. It only gives a preliminary idea about the performance of BC Group. Below we will attempt to address the issues such as to what extent these companies are really profitable, what is their actual profit potential, which are the main determinants of their profitability, whether they create value, which are the major drivers and/or impediments in this process, and whether all that could lead to creating some important incentives for the remaining part of the economy which is, unfortunately, on the other end of the ladder of success.

Literature, indeed, abounds with various ways of presenting the determinants of profitability. For the purpose of this paper, we opted for the four-component disaggregation of ROE, considering that it best illustrates local business conditions and challenges faced by Serbian companies (see Table 2). At the same time this disaggregated version of ROE provides insight into the values of ROA, which are important for the examination of the effects of financial leverage and assessment of its impact on the companies' profit potential.

With a view to enabling better understanding of the conclusions that will be presented below, let us first clarify the displayed components of ROE. Solvency ratio is measured as the ratio of average assets to average equity. Asset turnover is defined as the ratio between revenues and average total assets. EBIT margin is the ratio of this concept of income to revenues, while interest burden is calculated as the ratio of net income to EBIT. Also, one can easily notice that the two central components of this formula make ROA. As far as ROA is concerned, note that it represents the return which depends on the companies' operating efficiency since EBIT is a concept of income that

Table 2: Key profitability indicators: Four-component disaggregation of ROE

	2009	2010	2011	2012	2013
Panel A. All sectors (BC Group)					
1. Solvency ratio (leverage)	1.61	1.70	1.55	1.72	1.67
2. Asset Turnover	0.56	0.62	0.50	0.55	0.59
3. EBIT Margin	7.83	12.69	13.09	13.84	12.97
4. Interest Burden	0.31	0.51	0.70	0.60	0.81
5. Return on Equity - ROE (1x2x3x4)	**2.19**	**6.82**	**7.10**	**7.86**	**10.35**
6. Return on Assets - ROA (2x3)	**4.38**	**7.87**	**6.55**	**7.61**	**7.65**
7. Effects of Financial Leverage	**Negative**	**Negative**	**Positive**	**Positive**	**Positive**
Panel B. All sectors (BC Group) except the energy sector					
1. Solvency ratio (leverage)	1.96	2.10	1.99	2.13	2.00
2. Asset Turnover	0.73	0.81	0.75	0.76	0.84
3. EBIT Margin	10.11	15.37	14.66	17.29	14.37
4. Interest Burden	0.36	0.56	0.67	0.64	0.82
5. Return on Equity - ROE (1x2x3x4)	**5.21**	**14.64**	**14.66**	**17.91**	**19.80**
6. Return on Assets - ROA (2x3)	**7.38**	**12.45**	**11.00**	**13.14**	**12.07**
7. Effects of Financial Leverage	**Negative**	**Positive**	**Positive**	**Positive**	**Positive**
Panel C. Energy sector					
1. Solvency ratio (leverage)	1.31	1.36	1.27	1.39	1.38
2. Asset Turnover	0.33	0.35	0.26	0.28	0.28
3. EBIT Margin	1.25	4.58	8.58	2.48	7.75
4. Interest Burden	(0.94)	0.04	0.83	(0.35)	0.73
5. Return on Equity - ROE (1x2x3x4)	**(0.51)**	**0.09**	**2.35**	**(0.34)**	**2.19**
6. Return on Assets - ROA (2x3)	**0.41**	**1.60**	**2.23**	**0.69**	**2.17**
7. Effects of Financial Leverage	**Negative**	**Negative**	**Positive**	**Negative**	**Positive**

eliminates the effects of financing. Therefore, the value of the central part of four-component ROE formula is, among other things, determined by the efficiency of operating activities or operational risk. On the other hand, the first and the forth component of ROE are directly related to debt. Theoretically speaking, in the absence of debt the first and the fourth component of ROE would be equal to 1, which means that there would be neither the financial risk, nor the effect of financial leverage. Obviously, in that case ROE and ROA would be equal. However, since the existence of debt seems to be a much more realistic option, the value of the first component will actually be greater than 1 (assets are greater than equity), just as the value of the last component must be less than 1 (interest expenses will absorb a portion of income). All things considered, it can be concluded that an increase in debt may result both in the increase and fall in the profitability of equity. Increase in profitability occurs if the product of solvency ratio and interest burden is greater than 1 [17, pp. 116-121]. In this case, there will be a positive impact of financial leverage that manifests itself in the increased returns to shareholders, which means that ROE is greater than ROA. Of course, in the opposite case debt increase inevitably triggers the fall in profitability and negative effect of financial leverage. Hence, borrowing limit is established when ROA is equal to the cost of debt. Then ROA is equal to ROE, which implies that borrowing up to that limit has positive effects, while exceeding of the limit entails negative effects of financial leverage.

After these initial remarks it is evident that the first and the fourth component of disaggregated ROE ought to be a particular focus of our attention. As regards BC Group, note that solvency ratio was less than 2 over the entire period, which points to the fact that these companies were predominantly financed from internal sources. Such results in general relieve pressures on the long-term financial stability of these companies, despite a slight increase in the share of borrowed capital in their financing in the analyzed period. However, despite a low level of leverage, the interest burden was very high at the beginning of the period, which might be explained by rather expensive borrowing. In that year, only every third RSD of EBIT went to shareholders, while the rest was seized by long-term and short-term creditors, which is quite disappointing performance. Fortunately, the values of interest burden ratio were recovering in all subsequent years, with the shareholders' share in achieved EBIT rising from 50% to almost 80%. We have to underline that this is happening in parallel with a slight rise in debt in all years. Along with these observations, it should be noted that the levels of asset turnover ratio are unacceptably low. In all years it ranged between 0.5 and 0.6, which is the reason why it could not give an expected impetus to profit potential. If we would like to briefly make a diagnosis of such a state, then we could freely say that the effect of rapid growth in profitability did not take place due to the low level of business activity, on the one hand, and the lack of efficiency in asset management of these companies, on the other. There is no need to waste words in trying to explain that our expectations regarding the performance of asset turnover ratio were significantly higher, bearing in mind the fact that the subject matter of our analysis is the group of best-performing companies in the Serbian economy. Unlike asset turnover, EBIT margins reached 13-14% that, given the insufficient amount of revenues resulting from a modest volume of activities, should not be taught as a bad result. The epilogue of all of the previous facts is that both rates of return recorded relatively low performance, especially in the first two years when the values of ROA were higher than the values of ROE. As a result, this group suffers the consequences of negative effect of financial leverage, which eventually leads to the shrinkage in shareholders' wealth. The signs of a timid recovery from all these tendencies became visible in 2011 and 2012, when ROE began to exceed ROA, while the difference was noticeably higher in the last observed year. Consequently, owing to the positive effect of financial leverage this group turned out to be marginally profitable in 2011 and 2012. Namely, it was as late as in the last analyzed year that more efficient use of borrowed capital and more significant effects of financial leverage started to show up.

Given that the structure of BC Group is very heterogeneous, we sought to discover the root causes of the above-mentioned low returns. Our analysis has shown that the companies from the so-called energy sector, taken cumulatively, recorded the biggest net losses in two of the five observed years. Even in years when these companies reported net income, their performances were extremely disappointing. So, if we exclude the companies from the energy sector from the initial sample, we can notice that there has been a significant progress in terms of the profit potential of the remaining part of companies. If we take a closer look at the figures displayed in the central part of Table 2, we can easily perceive that the increase in profit potential of these companies is chiefly due to a substantial increase in EBIT margins (e.g. amounting to over 17% in 2012), slightly more efficient asset management and some feeble multiplier effect of asset turnover on the values of ROA. These improvements were accompanied by growing solvency ratio whose values were slowly attaining, in some years even exceeding, the level of 2. Such values are a consequence of the fact that borrowed capital gradually gained primacy over equity in the financing of this group of companies. At the same time, interest burden is slightly lower compared to the results obtained based on the whole sample. Thus, both returns are almost twice as high in all analyzed years, with the gap between them becoming even more pronounced, which means that these companies to a much greater extent exploited the effect of financial leverage to increase shareholders' wealth. The exception to this general pattern is the values of ROE and ROA in 2009, when this group of companies experienced the negative effect of financial leverage, which also serves as the best proof that even the leading Serbian companies did not manage to adequately tackle the numerous problems arising with the first waves of the Great Recession. Yet, here we should emphasize that even such performance levels of the observed group of companies were many times better compared to the performance of the rest of the economy which was much more severely hit by the economic crisis [16, pp. 323-347].

As we have already pointed out, the performance of companies from the energy sector significantly lags behind the performance of other companies in our sample. To tell the truth, these companies are, however, far less indebted. Still, the values of other determinants of profitability of equity are unacceptably low. First of all, we refer to asset turnover that during the recent years dropped even below 0.30. It cannot be expected that such a low level of asset turnover could in any way lead to accelerated growth of ROA, no matter how the trends in other determinants look like. More precisely, we can rather talk about the effect of deceleration in getting returns resulting from insufficient volume of activities, low operating efficiency and, obviously, the cumbersomeness of installed capacities in these companies. EBIT margins suffer the same fate, ranging between 1.25% and 8.5%, with their growth arising mainly as a result of the increase in interest expenses rather than of the growth in net income. In spite of the fact that these companies are less indebted, a more complete picture of their performance can be obtained only by including the indicator of interest burden in the analysis. We can see that there are really sharp fluctuations in this segment. In three of the five analyzed years interest burden was positive, but extremely unfavorable since practically the entire EBIT belonged to creditors. In 2009 and 2012 the values of this ratio were even negative, which means that generated EBIT did not suffice to cover creditors' claims, which had to be settled through reduction in equity. In other words, in these years the companies from the energy sector were actually "eating" their own substance, which explains why relying on borrowed capital has turned out to be very costly for these companies. Of course, the reasons for this state of affairs should be sought primarily in their less than modest profit potential. Besides all that, we may add some other reasons such as obsolete equipment, absence of strategic development and long-term investments, irrational cost management, burden of the social policy measures, and lack of competitiveness that has prevented this part of the economy from taking a more active role in international markets, which would enable it to increase its revenues, income and returns. In such circumstances, it can hardly be expected that in the period ahead ROE and ROA might exceed the existing limit of 2% and turn the negative effects of financial leverage into the positive ones. To be quite honest, during 2011 and 2013 the energy sector companies recorded a barely visible positive difference between the higher value of ROE and the lower value of ROA, but their levels were far from being satisfactory.

So, on the basis of the previous analysis we can conclude that, at the first glance, the level of BC Group's profitability seems acceptable provided that we exclude the companies from the energy sector. This fact needs to be particularly pointed out because, in spite of very low profit potential of the economy as a whole and associated negative effects of financial leverage, we can get the impression that there is at least one healthy nucleus within the economy whose experiences could serve as a blueprint for restoring the health of the rest of the economy. However, regardless of the validity of these conclusions, our story must not end here. Namely, notwithstanding the fact that the companies in our sample have above-average profitability we still do not know whether they create value for their shareholders and to what extent. The answer to this question will tell us whether this group of companies will be able to retain the existing and attract new investors. If the answer is positive, they do not have to worry too much about their future. Otherwise, they will need to make serious cuts.

Value creation as a criterion of companies' profitability

The previous analysis has provided the insight into the accounting profitability of the companies that were included in our research. Unfortunately, accounting profit suffers from numerous flaws. One of them is related to the fact that its calculation does not take into account the total costs of a company's capital.[2] Namely, in the preparation of income statement accountants consider only interest expenses, while omitting the costs of equity. For this very reason, the profit reported in income statement cannot be an adequate measure of value creation and increase in shareholders' wealth. If it is not sufficient to cover the opportunity costs of equity, this means that a company has actually destroyed a portion of their wealth [20, p. 531]. In fact, the costs of equity reflect the profit which could be earned by shareholders if they invested their capital in another company with a comparable level of systematic risk. Even though they are not explicitly visible, they *de facto* exist and ought to be taken into account when assessing a company's performance, which can be achieved by deducting them from net income taken from the income statement. In the relevant literature the concept of income obtained in this way is known as residual income.[3] It is also referred to as abnormal earnings, since it represents the amount in excess of the profit which could be expected for taking the risk of investing in a company under normal circumstances [18, pp. 689-731; 6, pp. 689-731]. Just like economic value added (EVA®) it is considered as a measure of economic profit, i.e. created shareholder value.[4] Given that it reflects economic profitability, residual income is a true indicator of a company's profitability.

Table 3 paints a picture of the performance of the companies that the Business Registers Agency identified as the most profitable in 2013 with an aim of assessing whether they are really that successful [2]. It presents the data on cumulative residual income of these companies for the period from 2009 to 2013. It should be emphasized that the costs of equity were calculated separately for each company, after which they were summarized and included in Table 3. Also note that for the purpose of their calculation we applied the methodology based on the Capital Asset Pricing Model (CAPM), which was developed by Professor Damodaran. Unfortunately, due to limited space we are not in a position to provide more detailed presentation and analysis of this methodology, which we will discuss only briefly [5, pp. 211-246]. Let us start with risk-free return. It can be defined as the difference between the yield to maturity of long-term government bonds denominated in local currency and the country default spread which is based on sovereign rating issued by Moody's. Once the risk-free return has been determined, it is possible to estimate a company's required return on equity. It can be calculated by adding equity risk premium for a country multiplied

2 Of course, this is not the only flaw of the profit reported in accounting statements. There are also many others, but they will not be the subject of this paper.

3 In fact, the costs of equity should be deducted from comprehensive income, which apart from net income from income statement also includes other comprehensive income taken from the statement of changes in equity. See Penman, S. H., (2009), See Penman, S. H. (2009). *Financial statement analysis and security valuation*. New York: McGraw-Hill/Irwin, p. 153. Yet, due to the lack of data on other comprehensive income for the analyzed companies, in this paper we defined residual income as the difference between net income and costs of equity.

4 For more details about similarities and differences between residual income and economic value added (EVA®) see Stowe, J. D., Robinson, T. R., Henry, R. E., & Pinto, J. E. (2009). Residual income valuation. *In CFA Institute, Equity: CFA ® Program Curriculum*, Volume 4. Boston: Pearson CustomPulishnig, pp. 529-531.

by the levered beta of a company to risk-free return [8, pp. 435-452].[5] Note that Hamada equation is employed to lever beta coefficient. Also note that equity risk premium for a country is defined as the sum of equity risk premium for the mature markets and country default spread. A required return is then multiplied by the book value of equity to finally obtain a company's costs of equity expressed in monetary terms. The data which were used in these calculations are presented in Table 4.

Now let us return to Table 3. It shows that the cumulative residual income of the analyzed companies was negative in each of the five years observed in our research. So, cumulatively speaking, the generated accounting profits of these companies were not sufficient to cover the opportunity costs of equity. This is a very worrisome revelation. It turns out that the companies which are considered to be the most profitable in the Serbian economy do not create value. As a matter of fact, the results from Table 3 suggest that they actually destroy the wealth of their owners. Yet, some conclusions that arise from this table are encouraging. First, we can notice that there was a significant reduction in cumulative residual loss of the observed companies in 2013 relative to the previous period in which it was quite stable. It is obvious that this trend came as a result of increased profitability, but also of a drop in the costs of equity. The data presented in Table 4 indicate that the reasons for decreasing costs of equity are to be sought primarily in lower risk-free return recorded in 2013. Second, a more thorough analysis of the structure of cumulative residual loss in 2013 reveals that 60 of 89 analyzed companies actually generated positive residual income. This finding is vividly represented by the whale curve of cumulative economic profitability in Figure 2. As can be seen from the figure, the cumulative residual income of the above-mentioned 60 companies reached RSD 80.2 billion. Unfortunately, it was nullified by the residual loss of remaining 29 companies, totaling to RSD 97.2 billion. Figure 3 shows that these value destroyers belong mainly to the energy sector. Cumulative residual loss of the companies from the energy sector amounted to alarming RSD 77.5 billion. However, the fact that all other sectors achieved positive economic profitability is positive sign. Most of the companies from these sectors were creating value, thus increasing the wealth of their shareholders. The companies from mining sector, processing industry and telecommunications had the leading role in this process with cumulative residual income amounting to RSD 23.2 billion, RSD 20.7 billion and RSD 8.9 billion, respectively. Cumulative residual income of all companies, excluding the ones from the energy sector, which reflects the total value created for their shareholders amounted to RSD 60.5 billion, which is quite acceptable result.

Table 3: Cumulative residual income of analyzed companies (in thousands of RSD)

Elements	2009	2010	2011	2012	2013
1. Cumulative net income	29,545,456	91,735,800	141,116,322	141,707,590	201,629,167
2. Cumulative cost of equity	175,618,526	233,998,746	321,098,110	279,714,482	218,617,969
3. Cumulative residual income (1 - 2)	(146,073,070)	(142,262,946)	(179,981,788)	(138,006,892)	(16,988,802)

Table 4: End of year data used in calculation of the costs of equity of analyzed companies

Elements	2009	2010	2011	2012	2013
1. Serbia's sovereign rating issued by Moody's	Ba3	Ba3	Ba2	Ba3	B1
2. Country default spread for Serbia	3.50%	3.25%	2.75%	3.25%	4.50%
3. Yield to maturity of the one-year zero-coupon government bond	10.50%	14.60%	13.00%	11.87%	8.89%
4. Risk-free return (3 - 2)	7.00%	11.35%	10.25%	8.62%	4.39%
5. Equity risk premium (ERP) for the mature markets	4.50%	5.00%	6.00%	5.80%	5.00%
6. ERP for Serbia (2 + 5)	8.00%	8.25%	8.75%	9.05%	9.50%

Sources: Damodaran Online, National Bank of Serbia, Ministry of Finance of the Republic of Serbia

5 Unlevered betas used in calculation of levered betas originate from Damodaran Online.

Figure 2: Cumulative residual income in 2013 (whale curve)

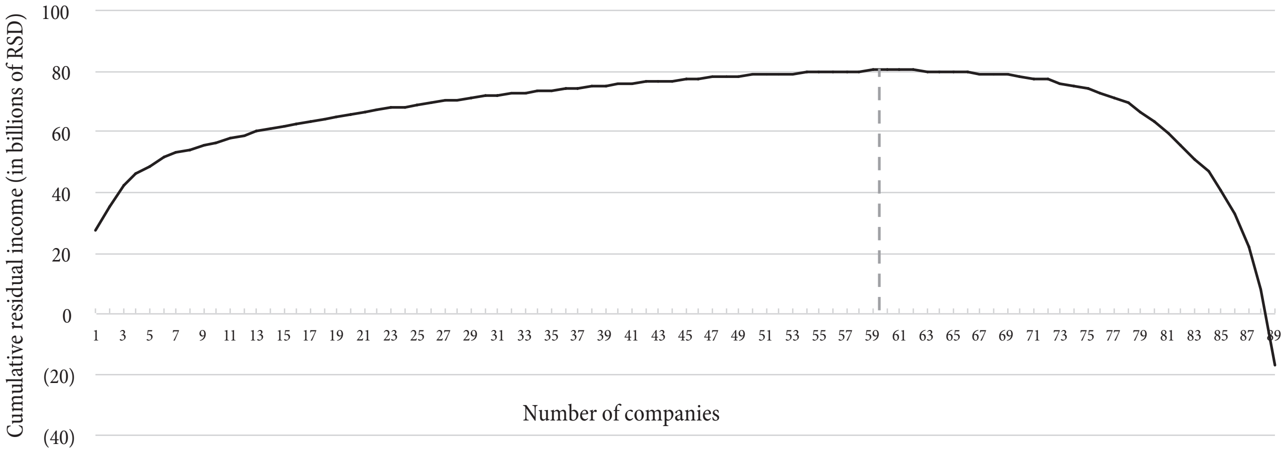
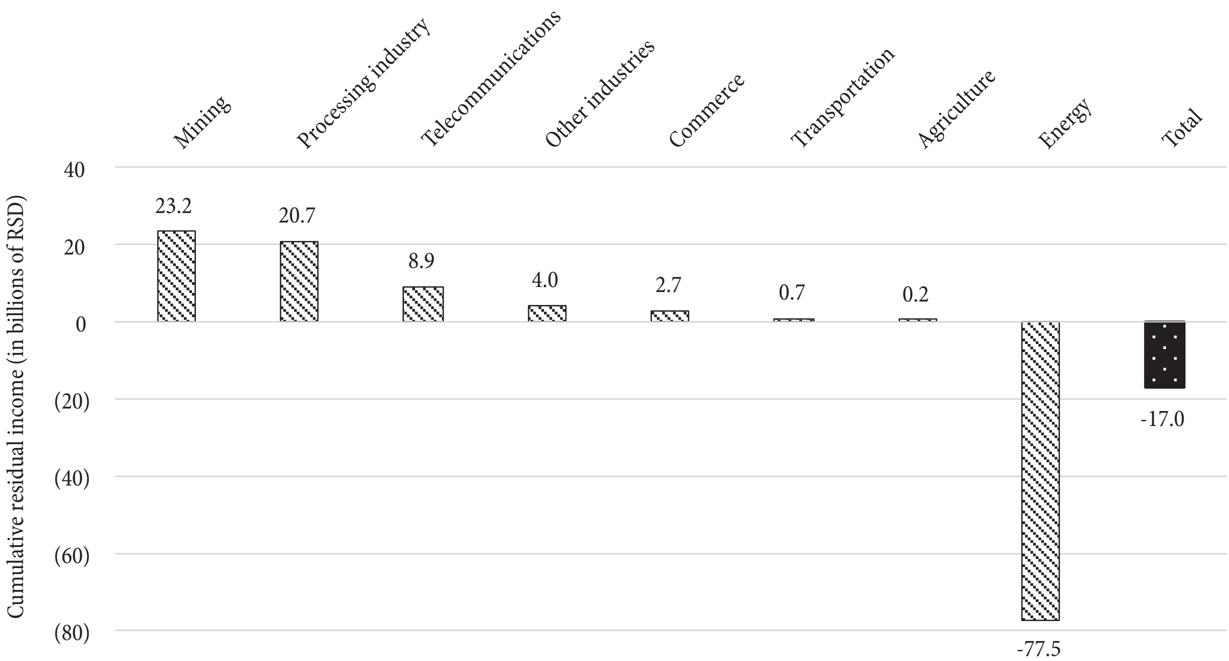


Figure 3: Sector analysis of cumulative residual income in 2013



A more detailed analysis of the economic profitability of observed companies is presented in Table 5. Panel A contains the data relating to all sectors. We can see that the return on equity of these companies was, on average, lower than the required return on equity, which led to cumulative residual losses in all analyzed years. The companies that do not belong to the energy sector are singled out in Panel B. They achieved positive economic profitability in 2012 and 2013. In 2013, the return on equity of this group of companies was by almost seven percentage points higher than the required return on equity, which is the reason behind the outstanding level of cumulative residual income of the mentioned RSD 60.5 billion. Panel C shows that this income was canceled out by the cumulative residual loss of the energy sector companies amounting to RSD 77.5 billion. We can also identify the cause of this loss. Namely, the companies from this sector recorded negative economic profitability in all observed years, even in 2013, mainly due to insufficient returns on equity. As in this paper we have already paid a great deal of attention to the lack of profitability of equity investment in the energy sector, the issue will not be further discussed here.

Hence, there is no doubt that, in absolute terms, the net income of all companies recognized as the best-performing in Serbia in 2013, seems really impressive. Still,

Table 5: Analysis of cumulative residual income

Elements	2009	2010	2011	2012	2013
Panel A. All sectors (BC Group)					
1. Return on equity – ROE	2.15%	6.79%	7.14%	7.75%	10.33%
2. Required return on equity	12.76%	17.32%	16.24%	15.30%	11.20%
3. Abnormal return on equity (1 – 2)	-10.61%	-10.53%	-9.11%	-7.55%	-0.87%
4. Cumulative equity*	1,376.4	1,351.0	1,976.7	1,828.0	1,951.2
5. Cumulative residual income* (3 × 4)	(146.1)	(142.3)	(180.0)	(138.0)	(17.0)
Panel B. All sectors (BC Group) except energy sector					
1. Return on equity - ROE	5.15%	14.64%	14.76%	17.96%	19.87%
2. Required return on equity	14.33%	19.09%	18.36%	17.50%	13.15%
3. Abnormal return on equity (1 – 2)	-9.19%	-4.44%	-3.60%	0.46%	6.72%
4. Cumulative equity*	646.3	622.4	763.6	808.5	899.5
5. Cumulative residual income* (3 × 4)	(59.4)	(27.7)	(27.5)	3.7	60.5
Panel C. Energy sector					
1. Return on equity - ROE	-0.51%	0.08%	2.34%	-0.34%	2.18%
2. Required return on equity	11.37%	15.81%	14.92%	13.56%	9.54%
3. Abnormal return on equity (1 – 2)	-11.87%	-15.73%	-12.57%	-13.90%	-7.36%
4. Cumulative equity*	730.2	728.6	1,213.0	1,019.4	1,051.7
5. Cumulative residual income* (3 × 4)	(86.7)	(114.6)	(152.5)	(141.7)	(77.5)

* in billions of RSD.

it must be admitted that in the case of some companies this income resulted exclusively from the huge amounts of capital deployed in their operations. And if so, the perception of performance fundamentally changes when, instead of absolute, we take into consideration relative indicators of profitability. The returns of these companies are too low to cover the costs of equity. Therefore, it's no wonder that such companies make residual losses and destroy the wealth of their shareholders. Our analysis has shown that they are concentrated mainly in the energy sector. Note that all of them belong to the group of public companies. The problems they face are nothing new. Some pertain to the government-controlled pricing policy which serves as an instrument of social policy [10, pp. 131-154]. Also, there are problems in the area of asset management which is inefficient, as evidenced by low levels of asset turnover. A particular problem is political interference in the business activities of such companies [10, pp. 131-154]. But if these companies are excluded from the study, our conclusions will be strikingly different. The remaining companies achieve positive residual income, which tells us that they have succeeded in creating value and increasing the wealth of their shareholders. We believe that these very companies form the healthy nucleus of the Serbian economy.

Conclusion

The Serbian economy, judging on the basis of the analysis of official financial statements, undoubtedly has serious financial and structural problems. A general conclusion could be that it is illiquid, insolvent, unprofitable and uncompetitive. The fact that, on average, only 57.2% of the total number of companies generate net income, speaks volumes in favor of the previous point. In such circumstances, among a large number of very serious problems, in this paper we decided to pay special attention to the following two. First, the long-lasting survival of numerous companies that constantly make losses is unreasonable and unsustainable in the long run, especially for a country that pledges to adhere to the principles of modern market economy. Due to their financial indiscipline, breaches of contracts, failure to meet their obligations, along with institutional tolerance towards such behavior, these companies jeopardize normal functioning of the healthy parts of the economy and contribute to the creation of an unfavorable environment marked by growing uncertainty and rise in overall risks, which discourages investors. Second, a tendency to ignore this legacy (technical and technological obsolescence of available capacities, net working capital deficiency, inadequate profit potential, relatively high level of indebtedness, inability to repay debts and obligations as they fall due, etc.) casts doubt on the projections of significant GDP growth. It seems logical that there must be a high degree of correlation between upturn or downturn in economic activity and projected growth rates.

The analysis of the companies that reported the highest amounts of net income has given us a clearer view of the profitability of the Serbian economy. Bearing in mind that these companies are positioned as the most successful, it is realistic to expect that they could be regarded as the healthy nucleus of the Serbian economy and key drivers of its development. The analysis of key determinants of profitability of these companies has revealed that they exhibit significantly higher values (except for asset turnover) compared to the average values in the Serbian economy. Lower solvency ratio, much higher values of EBIT margin and normal values of interest burden (from which can be seen the participation of shareholders and creditors in the share of profits) result in significantly higher returns on equity. The financial strength of companies and their market positions have allowed them to borrow under more favorable terms, which resulted in a positive effect of financial leverage on the performance of BC Group in the last three years. Lower asset turnover in comparison to its average value at the level of the economy is quite understandable if we take into account the fact that BC Group also encompasses capital-intensive companies with valuable assets, which for different reasons fail to generate more revenues that would lead to greater turnover.

Despite the fact that the returns of BC Group are above average for the economy, they are not high enough to guarantee that the interests of all stakeholders will be meet. The perception of profitability dramatically changes if we raise the threshold for companies' performance to the level of income that would provide for the coverage of opportunity costs of equity. The insight into residual income of BC Group reveals very worrisome results, since at the level of the group it was negative in all analyzed years, which leads to a conclusion that the best companies in Serbia do not create value. Yet, a more thorough analysis, focusing on the monitoring of residual income at the level of individual companies as well as at the level of particular sectors to which they belong, give us reasons for some more optimistic conclusions. Namely, the analysis of the structure of cumulative residual income reveals that 60 of 89 companies have positive residual income, which means that they create value, while the remaining 29 companies have negative residual income that is at the same time greater than the sum of all positive residual incomes.

Responsibility for the reported net income at the level of BC Group is not divided equally between individual companies and sectors they belong to. After excluding 11 companies belonging to the energy sector from BC Group, the picture of performance significantly changes in such a way that almost all analyzed values increase in the case of BC Group without energy companies, or decrease as far as the companies from the energy sector are concerned. This leads to a significant increase in profitability of BC Group without energy sector companies, respectable values of ROE and ROA, and positive effect of financial leverage in four of the five analyzed years. Application of residual income, as a much stricter test of performance, enabled us to further differentiate the performance of individual companies and sectors. Most of the companies from BC Group without energy sector companies generated positive residual income, thus creating shareholder value added. The leaders are the companies from mining sector, processing industry and telecommunications. This gives us grounds to conclude that, despite the fact that there are companies which, regardless of reported net income, are not profitable in terms of the creation of value added, there are also companies that constitute the healthy nucleus of Serbian economy which can drive economic growth of the national economy.

The companies from the energy sector are primarily responsible for negative residual income. From a total of 11 companies and 5 analyzed years, only one company in one year recorded positive residual income. Moreover, the things become much clearer if we realize that all analyzed companies from this sector are public companies. Bearing in mind the public importance of these companies, as well as the fact that the state holds ownership function, it becomes evident that the performances of these companies could and must be raised to a higher level. A key step consists of introducing fundamental changes in the state's attitude towards public companies, which will enable the improvement in corporate governance. To this end, it is necessary to increase accountability of the state as an owner, to separate the state's ownership function from its regulatory function, to regularly monitor performance of public companies, to engage professional managers, to strengthen financial and fiscal discipline, to increase transparency and provide a greater security to investors in mixed-ownership companies [9, pp. 54-55]. Enhancement of the performance of public companies requires the implementation of a wide range of different measures, tailor-made to the needs of each company. In this regard, it would be advisable to think of measures such as partial privatization with different dispersion of ownership, establishment of public-private partnerships, operational and financial restructuring, involvement of some companies in the capital market, etc.

Considering the forgoing findings, we can conclude that the ultimate goal of economic policy makers is to enable the development of stable business environment which will stimulate companies and investors to contribute to the growth of the national economy. Institutional protection of loss-making companies is a huge burden to the whole economy, moving it away from the market economy. The experiences of many countries have shown that the performance of public companies can be significantly improved, but with completely different and far more responsible approach from the one that has been used in Serbia. The existence of companies that have capacity to create value proves that it is possible to do business on a sound basis.

References

1. A World Bank Group Flagship Report, Doing Business 2016. (2016). *Measuring Regulatory Quality and Efficiency.* International Bank for Reconstruction and Development / The World Bank, Washington, http://www.doingbusiness.org.
2. Agencija za privredne registre. (2014), Sto naj... privrednih društava u Republici Srbiji u 2013. godini, http://www.apr.gov.rs/
3. Casey, C., & Bartczak, N. (1985). Using Operating Cash Flow Data to Predict Financial Distress: Some Extensions. *Journal of Accounting Research*, 23,1, 384-401.
4. Casey, C., & Bartezak, N. (1984). Cash Flow – Its Not the Bottom Line. *Harvard Business Review, July–August*, 61-66.
5. Damodaran, A. (2012). *Investment valuation: Tools and techniques for determining the value of any asset*. Hoboken: John Wiley & Sons.
6. Feltham, G. A., & Ohlson, J. A. (1995). Valuation and clean surplus accounting for operating and financial activities. *Contemporary Accounting Research*, 11(2), 689-731.
7. Goddard, J., Tavakoli, M., & Wilson, J. (2009). Sources of Variation in Firm Profitability and Growth. *Journal of Business Research*, 62, 495-508.
8. Hamada, R. C. (1972). The effect of the firm's capital structure on the systematic risk of common stocks, *The Journal of Finance*, 27(2), 435-452.
9. Malinić, D. (2015). The Relevance of Positional Risks in Creating Development Strategy: The Case of Public Enterprises. *Ekonomika preduzeća, January-February*, 33-56.
10. Malinić, D. (2013). Finansijska (ne)moć javnih preduzeća, In *Računovodstveno regulatorno okruženje: podsticaj ili ograničenje privrednog rasta*, Savez računovođa i revizora Srbije, Zlatibor, 131-154.
11. Malinić, D. (2013). Insufficiency of Serbian Economy's Operating Performances: Manifestations, Causes and Main Guidelines of Recovery. *Ekonomika preduzeća, January-February*, 41-62.
12. Malinić, D., Denčić-Mihajlov, K., & Ljubenović, E. (2013). The Determinants of Capital Structure in Emerging Capital Markets: Evidence from Serbia. *European Research Studies*, XVI, 2, 98-119.
13. Malinić, D., & Milićević, V. (2011). Performance Evaluation of Real Sector in Serbia. *Ekonomika preduzeća, November-December*, 335-351.
14. Malinić, D., & Milićević, V. (2012). The Financial and Structural Capabilities of Key Infrastructure Sectors in Serbia. *Economic Annals, LVII*,195, 7-42.
15. Malinić, D., & Milićević, V. (2013). Effects of Changes in Foreign Exchange Rates on Performance in Serbia's Economy. *Ekonomika preduzeća, November-December*, 401-416.
16. Malinić, D., Milićević, V., & Glišić, M. (2014). Interdependence of Enterprise Size and Vitality in Serbian Economy. *Ekonomika preduzeća, November-December*, 323-347.
17. Malinić, D., Milićević, V., & Stevanović, N. (2015). *Upravljačko računovodstvo*, Beograd: Ekonomski fakultet.
18. Ohlson, J. A. (1995). Earnings, book values, and dividends in equity valuation. *Contemporary Accounting Research, 11(2)*, 661-687.
19. Penman, S. H. (2009). *Financial statement analysis and security valuation*. New York: McGraw-Hill/Irwin.
20. Stowe, J. D., Robinson, T. R., Henry, R. E., & Pinto, J. E. (2009). *Residual income valuation*, In CFA Institute, Equity: CFA® Program Curriculum, Volume 4. Boston: Pearson Custom Publishnig.

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