

# HIGHLIGHTS

## Highlight 1. Profitability Analysis of Serbia's Economy in 2019

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In 2019, the profitability of Serbian companies was slightly impaired compared to the previous year. This interrupted the positive trend that was present from 2014 to 2018. The decline in the overall profitability of the economy was primarily due to the decline in business profitability, which could be a warning signal. However, similar trends are present in the economies of the United States and Western Europe.

### Profitability Analysis of the Overall Economy

We start the analysis of the profitability of the Serbian economy at the level of the entire economy, by using the margins of profitability: operating profit rates and net profit rates, as well as using the rates of return: rates of return on total assets (ROA) and rates of return on equity (ROE). We then move the analysis to the level of individual sectors, which should give us a clearer insight into trends at the level of the economy as a whole. We compare the previously mentioned profitability indicators of the Serbian economy with the same indicators that were achieved in the world in order to position the domestic economy in the mosaic of world profitability.

### Business Profitability Vs Total Profitability

The *rate of operating profit* at the level of the economy, as an indicator of the profitability of the company's core business, in 2019 amounted to 5%, which is a decrease of 0.58 pp compared to the previous year. Thus, in 2019, the lowest operating profit rate since 2015 was achieved. The reason for this trend is the faster growth of operating expenses compared to operating revenues. This decline, in a macroeconomic environment characterised by a relatively stable exchange rate, as well as low interest rates, should not significantly jeopardise future profitability. However, having in mind the events from the first quarter of 2020, conditioned by the emergence of the health crisis, it is certain that a further decline in profitability will follow this year.

Operating revenues at the level of the economy in 2019 grew at a rate of 8.61%, and operating expenses at a rate

of 9.23%. For the third year in a row, revenues from sales of products and services are growing at a higher rate (10.95%) compared to revenues from sales of goods (7.26%), which indicates a continued refocusing from economic growth based on trade in goods to growth based on the production of goods and services.

Observed for the economy as a whole, the most significant categories of operating expenses continued the growth trend from the previous period, where significant growth was seen in the cost of wages and energy costs. Wage costs increased by 10.38%, continuing with the high growth rate achieved in 2018. The increase in wage costs is partly caused by the faster growth of average wages in the economy than the growth of economic activity and productivity, which has the consequence of disaggregating unit labour costs (see the chapter on labour market). The growth of average wages was caused by the successive growth of wages in the public sector, which consequently spilled over to the private sector. The increase in wages was certainly influenced by the decrease in the supply on the labour market, which in recent years has been characteristic for Serbia, as well as of other CEE countries, due to emigration, unfavourable demographic trends, etc. In addition to wage costs, there is a noticeable increase in energy costs, caused primarily by the growth of electricity prices. These prices have increased by 20.2% for the business sector since the beginning of 2019, which is higher than the price of electricity on relevant European stock exchanges. We can assume that the reason for this is to cover the costs of electricity production for households, bearing in mind that throughout 2019 a relatively low price controlled by the state was maintained. However, at the end of 2019, the Energy Agency approved an increase in the price of electricity to EPS for guaranteed household supply by 3.9%, which could, in the next year, interrupt the continuous growth of electricity prices for businesses, which has been present in the past few years. As for the prices of other energy sources, the price of oil, after dropping in the last quarter of 2018, increased again and kept growing until the end of April 2019. This price movement is related to the decision of OPEC and its members to reduce daily crude oil production by 1.2 million barrels after prices fell at the end of 2018. However, observing further trends, we notice that the average price of North Sea oil "Brent" was at a slightly lower level compared to 2018, so it did not have an impact on the growth of material and energy costs at the economic level. According to data from the LME (London Metal Exchange), the prices of non-ferrous metals in 2019 continue the declining trend, which affects the reduction of input prices in certain segments of the processing industry. However,

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despite this reduction, the manufacturing industry did not improve its profitability, which will be discussed in more detail below.

In order to get a clearer picture of the dynamic<sup>4</sup> of business profitability of domestic businesses, it is necessary to compare with other economies.

**Table 1. Operating profit rate in Serbia and the world – comparative analysis, 2013-2019**

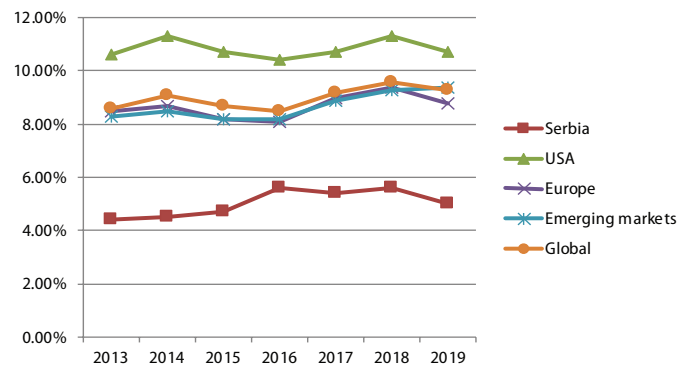
| Year | Serbia | USA    | Europe | Emerging markets | Global |
|------|--------|--------|--------|------------------|--------|
| 2013 | 4.40%  | 10.60% | 8.50%  | 8.30%            | 8.60%  |
| 2014 | 4.50%  | 11.30% | 8.70%  | 8.50%            | 9.10%  |
| 2015 | 4.70%  | 10.70% | 8.20%  | 8.20%            | 8.70%  |
| 2016 | 5.60%  | 10.40% | 8.10%  | 8.20%            | 8.50%  |
| 2017 | 5.40%  | 10.70% | 9.00%  | 8.90%            | 9.20%  |
| 2018 | 5.60%  | 11.30% | 9.40%  | 9.30%            | 9.60%  |
| 2019 | 5.00%  | 10.70% | 8.80%  | 9.40%            | 9.30%  |

Source: The authors using BRA data and <http://pages.stern.nyu.edu/~adamodar/>

As in previous years, the domestic economy recorded lower rates of operating profit compared to the economies of the United States and Western Europe. However, the operating profit rates of the domestic economy lag significantly behind and in comparison with developing countries. The decline in business profitability of the domestic economy could be partly part of a broader trend, because the decline in profitability was achieved in more developed economies in 2019 compared to 2018, when a decline in the rate of operating profit was recorded. The decline in profitability in developed countries in 2019 is a consequence of the cyclical slowdown in the growth of their economies. Namely, in the phase of slowing down the growth or recession, the decline in income precedes the decline in costs, and this results in a deterioration in profitability. However, the operating profit rate in 2019 recorded growth only in the group of developing countries, which could be a consequence of the delay in the cyclical slowdown of their economies compared to developed countries. One of the potential reasons for the decline in the profitability of the domestic economy is the slowdown in economic activity in the countries of Western Europe since the movements of the domestic economy are strongly influenced by the movements of the Western European countries, given that Serbia's exports grew significantly last year (see the section on foreign trade), we estimate that the growth of economic costs has made a key contribution to reducing profitability.

<sup>4</sup> The level of profitability is strongly influenced by the sectoral structure of a particular economy, so comparisons are not informative.

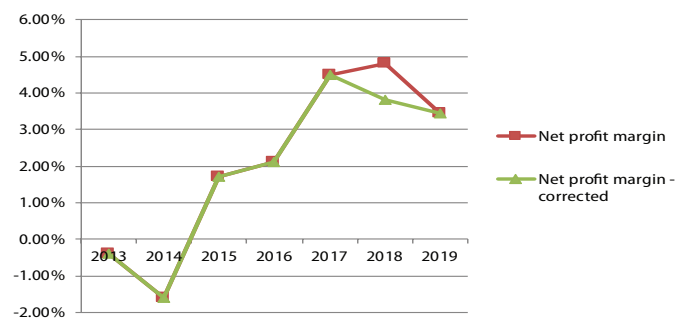
**Graph 1. Operating profit rate – comparative analysis, 2013-2019**



Source: The authors using BRA data and <http://pages.stern.nyu.edu/~adamodar/>

After strong growth in the period 2014-2017, and barely noticeable growth in 2018, in 2019 the *total profitability of the economy*, measured by the *net profit rate*, recorded a decline in rates from 4.80% to 3.43%. It is important to note that this is the first time that there has been a decline in the net profit rate during the analysed period (2013-2019), with a decline of 1.4 pp. However, such a decline is not unexpected, given the extremely high rate of net profit in 2018 due to unrealistically high other results at the level of the economy, which completely distorted the picture of overall profitability<sup>5</sup>. In order to create a more realistic insight into the movement of total profitability during the observed period, for the purposes of the analysis, we excluded the unusually high other result from 2018 and adjusted the rate for 2018. We found that had there not been the mentioned one-time revenues, the rate of net profit in 2018 would have been 3.8%<sup>6</sup>, which is 1 pp less compared to the calculated rate. So, had there not been for this extremely positive other result in 2018, a drop in the net profit rate would have been recorded that year as well, and this decline would have continued in 2019 as well. So, the decline in total profitability in 2019 certainly exists, but it is less pronounced than if we look at the original data.

**Graph 2. Net profit rates in Serbia 2013-2019, original and corrected data for 2018**



Source: The authors using BRA data

<sup>5</sup> This other result is a consequence of the remaining revenues in the amount of about 100 million related to the privatisation of RTB Bor. This segment of results will be explained in more detail when we analyse the overall profitability of the mining sector.

<sup>6</sup> Authors' approximation based on available data.

Observing the segment of the income statement of the economy related to the financial result, we notice that it did not significantly affect the overall performance of the economy, but in this part, the economy achieved a positive result given that there was a reduction in net loss on financing. The financial result is predominantly influenced by the movements on the financial markets, so the improvement of this segment of results is, at least in part, a consequence of the decline in interest rates in 2019, as well as the strengthening of the domestic currency against the euro. Such developments caused significant reductions in negative exchange rate differences compared to the previous year (a decrease of 27%), which had a positive effect on the development of financing results.

We could draw similar conclusions by looking at the segment of the other result. The decrease in this part of the results is not unexpected, bearing in mind that the analysis of profitability of the previous year was marked by the presence of extremely high other revenues in the mining sector. However, as in the previous part of the paper, in order to gain a more realistic insight into the movement of profitability, if we abstracted the unexpectedly high growth of other revenues in 2018, we could conclude that in 2019, improvement was recorded in that part of the non-business result as well.

Despite the above, the components of the non-operating result were not sufficient to offset the decline in the operating profit margin, as a result of which we conclude that the decline in the net profit margin was caused by the decline in operating profitability. Despite the movement in the opposite direction, we can conclude that, as in previous years, the overall profitability was predominantly determined by the business profitability of the company. In order to position the domestic economy in the global context, we will again compare the rate of net profit of the domestic and global economies.

**Table 2. Net profit rate in Serbia and the world - a comparative analysis, 2013-2019**

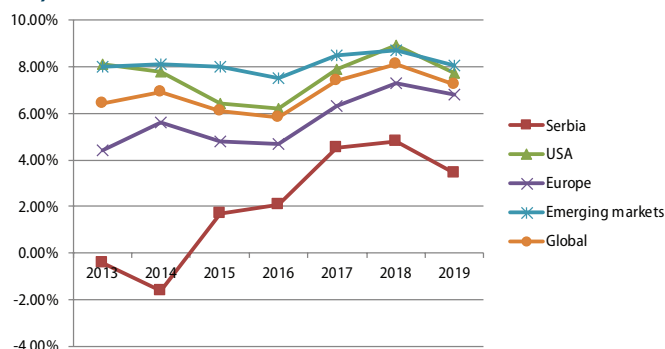
| Year | Serbia | USA   | Europe | Emerging markets | Global |
|------|--------|-------|--------|------------------|--------|
| 2013 | -0.40% | 8.10% | 4.40%  | 8.00%            | 6.40%  |
| 2014 | -1.60% | 7.80% | 5.60%  | 8.10%            | 6.90%  |
| 2015 | 1.70%  | 6.40% | 4.80%  | 8.00%            | 6.10%  |
| 2016 | 2.10%  | 6.20% | 4.70%  | 7.50%            | 5.80%  |
| 2017 | 4.50%  | 7.90% | 6.30%  | 8.50%            | 7.40%  |
| 2018 | 4.80%  | 8.90% | 7.30%  | 8.70%            | 8.10%  |
| 2019 | 3.43%  | 7.71% | 6.80%  | 8.04%            | 7.26%  |

Source: Authors using BRA data and <http://pages.stern.nyu.edu/~adamodar/>

It is certain that the Serbian economy has managed to significantly improve its overall profitability since 2013. However, net profit rates are still lagging behind compared to developed economies and the economies of the developing countries. It is noticeable that during

2019, similar to Serbia, USA, Western Europe, as well as developing countries, recorded a decline in the net profit rate, indicating the potential dependence of overall profitability on the action of the same factors.

**Graph 3. Operating profit rate - a comparative analysis, 2013-2019**



Source: Authors using BRA data and <http://pages.stern.nyu.edu/~adamodar/>

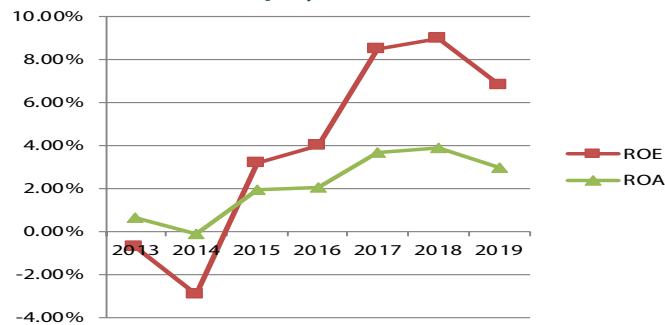
**Rate of Return on Total Assets (ROA) Vs. Rate of Return on Equity (ROE)**

We can enhance the analysis of economic profitability by introducing two more indicators: rates of Return on Total Assets (ROA) and rates of Return on Equity (ROE), in order to gain insight into the returns on investments made by key stakeholders in the company.

Both rates were constantly increasing in the period 2013-2018, followed by a decline in 2019 in both rates. Although the capital turnover ratio and the turnover ratio of total assets increased compared to 2018, i.e. although there was a slight increase in the efficiency of asset and capital management, this increase was not sufficient to compensate for the decline in the net profit margin. Similar to previous years, the movement of yield rates was predominantly conditioned by the movement of profitability. However, had it not been for a slight improvement in the efficiency of asset and capital management, the decline in yield rates would have been more significant.

Observing the relationship between ROA and ROE, we conclude that the trend of reaping the effects of positive financial leverage, which has been present since 2015, continues. This relationship tells us that the return that companies made on total assets is higher than the cost of financing those assets and that debts positively affected the return on equity.



**Graph 4. Rates of Return on Total Assets (ROA) and Rates of Return on Equity (ROE), 2013-2019**

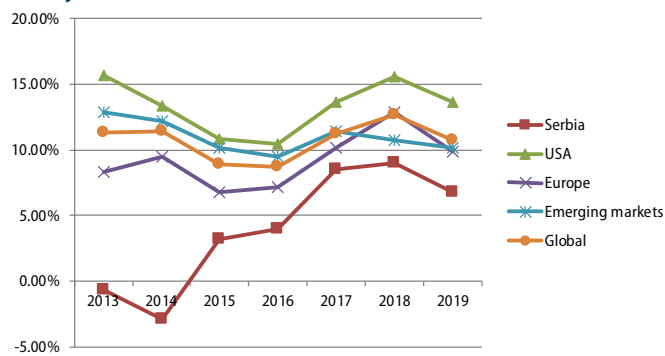
Source: Authors using BRA data

For the purpose of comparing the realised returns with the world economies, we will use the rate of return on equity.<sup>7</sup>

**Table 3. Rate of Return on Equity (ROE) in Serbia and the world – comparative analysis, 2013-2019**

| Year | Serbia | USA    | Europe | Emerging markets | Global |
|------|--------|--------|--------|------------------|--------|
| 2013 | -0.70% | 15.70% | 8.30%  | 12.90%           | 11.30% |
| 2014 | -2.90% | 13.30% | 9.50%  | 12.20%           | 11.40% |
| 2015 | 3.20%  | 10.80% | 6.80%  | 10.20%           | 8.90%  |
| 2016 | 4.00%  | 10.40% | 7.20%  | 9.50%            | 8.70%  |
| 2017 | 8.50%  | 13.60% | 10.20% | 11.40%           | 11.20% |
| 2018 | 9.00%  | 15.60% | 12.90% | 10.70%           | 12.70% |
| 2019 | 6.80%  | 13.60% | 9.90%  | 10.20%           | 10.70% |

Source: Authors using BRA data and <http://pages.stern.nyu.edu/~adamodar/>

**Graph 5. Rates of Return on Equity – comparative analysis, 2013-2019**

Source: Authors using BRA data and <http://pages.stern.nyu.edu/~adamodar/>

### Profitability Analysis by Sectors

In order to explain the decline in profitability at the level of the economy, we will look at the movement of profitability by selected sectors of the economy.<sup>8</sup> We will first analyse the business profitability of the sector, since it tells us about the success of performing the core business, and then we will expand the analysis to the overall profitability by sector.

<sup>7</sup> This is because the database used to collect relevant data on world economies does not contain data on the rate of return on total assets.

<sup>8</sup> For the sake of comparability, the focus of the analysis will be on the same sectors that were analysed in the previous year (all sectors that generated a minimum of 100 billion in total revenues in 2017).

In the initial part of the text, we saw that at the level of the economy there was a decline in business profitability, but when we look at the level of the sector, we see that in most of the observed sectors there was an increase in business profitability. However, although a smaller number of sectors experienced a decline in profitability, their relative importance was higher, which caused their poorer performance to jeopardise the performance of the economy.

The growth of business profitability was achieved by the sectors of agriculture, mining, construction, wholesale and retail trade, information and communication, accommodation and food services, administrative and service activities. In the agricultural sector in 2019, there was a slight increase in business profitability by 0.4 pp, which is a good sign, bearing in mind that in previous years (2016–2018) this sector recorded a decline in business profitability. The cause of the extremely slight growth of this sector lies in the instability of agricultural production, which due to insufficient modernisation is very susceptible to changing climatic conditions (change of very dry and very rainy periods, weather disasters, hail, etc.). Therefore, in 2019, compared to 2018, agricultural production recorded a 0.1% decrease in the physical volume of production, which was reflected in the production prices of agricultural products, which were 0.6% higher than in the previous year. A decline in agricultural production can be expected in the coming years if adequate agro-technical measures are not applied<sup>9</sup> with the aim of increasing the quality, and thus the fertility, of the land.

After falling in 2018, the growth of the operating profit rate was also achieved by the mining sector. This growth shows that there has been an improvement in the core business in the sector. The decline in 2018 may be a consequence of the privatisation RTB Bor, which slowed down its activity in 2018. Given that the privatisation process was completed last year, it is possible that this had a positive impact on the business result of the sector and led to growth in 2019 compared to the previous year. Further improvement in this sector can be expected in the coming years, bearing in mind that significant investments are planned, which should lead to better use of natural resources and, therefore, significant potential of this branch.

There was a slight improvement compared to the previous year in the *Trade sector*, where after the decline in the previous year there was an increase in the rate of operating profit. The improvement in the results of this sector is a consequence of faster growth of operating revenues compared to operating expenses, which was

<sup>9</sup> Such as vegetable fertilisation, crop rotation and the like.

certainly contributed by the growth of wholesale trade turnover by 5.63%, as well as retail trade turnover growth of 11.33% in current prices.

A significant increase in the operating profit rate was achieved by the *Construction sector*. The operating profit rate in this sector continued the positive trend from previous years and increased by 1.2 pp compared to 2018. With excellent performance, the construction sector continued to play the role of the main driver of economic growth in Serbia from last year, when, according to the SORS, it was identified as the sector with the highest real growth in gross value added. The good performance of this sector in the last few years has led to an increase in the share of construction in Serbia's GDP from 3.2 percent in 2014 to 5 percent in 2019. The success of this sector is reflected in the fact that the number of employees in this sector continued to increase, the number of issued building permits increased, as well as the value of construction work performed<sup>10</sup>. High growth rates of construction enabled the rapid implementation and completion of large infrastructure projects (Turkish Stream, completion of Corridor 10, the Belgrade–Novi Sad railway), but also an intensive investment in building construction.

There was a slight improvement, after the deterioration of the previous year's business result, in the *Information and Communication* sector and the *Accommodation and Food Services* sector. In the ICT sector, the growth of operating profit in the previous year would have been higher if there had not been a slight drop in prices in the Communications sector in parallel with the growth in physical volume. Also, according to the RATEL report, the use of the Internet continues to grow<sup>11</sup> as a substitute for traditional telephone traffic, which is a special challenge for managing the profitability of telecommunications companies. Although part of the data transfer for communication is done via the mobile internet, the largest part of the earnings from online services goes to the companies whose applications are used. In the Accommodation and Food Services sector, the improvement in the operating profit rate was caused by an increase in the number of tourist nights as well as an increase in the prices of catering services by 1.6% compared to the previous year, which led to an increase in operating revenues. The number of tourist nights was 7.3% higher than in the previous year, i.e. more than 10 million more nights were realised, of which about 4 million were realised by foreign tourists. A significant number of foreign tourists in relation to domestic ones

indicates that Serbia has a tourist potential that should be used even better in the coming years.

In the sector of *Administrative and Service Activities*, the operating profit rate increased significantly, which further improved the positive trend from the previous year. Growth in this sector is particularly significant given that the activities that make it up (rental and leasing services, activities of travel agencies and tour operators, office-administrative, and other ancillary business activities) are supporting activities of the economy. Therefore, the positive trend in this sector is a sign of the development of other sectors of the economy that use the services of this sector.

The decline in the rate of operating profit was recorded in the sectors of *Manufacturing, Electricity Supply, Water Supply, Transport and Storage, and the sector of Expert And Scientific Activities*. Of these sectors, the Manufacturing industry is the sector with the most significant share in the country's GDP, while the share of the Electricity Supply sector is among the most significant. For that reason, it is not good for the economy that these two important sectors have been showing a declining trend since the beginning of the observed period (2016). In the *Manufacturing industry*, a decrease of 0.9 pp was recorded because operating revenues grew at a rate of 4.80% compared to operating expenses, which increased by 5.84%, which led to a decrease in operating profit compared to 2018. The growth of wage costs, electricity prices and the growth of prices of agricultural products as inputs contributed to the faster growth of operating expenses in the manufacturing industry, which had a negative impact on business profitability. The production of the processing industry dropped significantly in the first half of 2019, which was caused by the overhaul of the Pancevo Refinery and Petrohemija, as well as the reduced production in Fiat. However, compared to 2018, according to SORS, the production of the manufacturing industry grew by 0.2%. The small increase is a consequence of the decline in the production of petroleum products, chemical and food industry, production of motor vehicles and trailers.

The decline in the rate of operating profit in the *Electricity Supply sector* was due to faster growth of operating expenses compared to operating revenues, which is probably caused by the lower profitability of EPS's operations, which is the dominant part of this sector. It is interesting to note that the business performance of the sector decreased, although at the end of 2018, the price of electricity for commercial use in 2019 increased significantly (20.2%). Such an increase in the price of electricity cannot be justified by the growth of the price of electricity on the market. So the reason for such an

<sup>10</sup> It is estimated that the value of works performed in 2019 had a real growth of 28.5% compared to the previous year.

<sup>11</sup> Internet use has increased both through fixed broadband internet access and through mobile internet traffic.

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increase, we assume, should be sought in the insufficiently high price of electricity for citizens, which is below production costs and as such unsustainable. Such a low price of electricity stimulates irrational use by citizens (electric heating, etc.), and increases the consumption of electricity sold below cost, which jeopardises the success of the sector. Increased consumption is especially problematic in periods when, due to the insufficient amount of electricity produced, it is necessary to cover the missing part from imports. This problem most often occurs in the winter months, when the price of electricity is the highest on the market. That in the previous period there were indeed imports of expensive electricity is also shown by the fact that in the cost structure there was a significant increase in the purchase value of goods sold, which is below the growth rate of income from the sale of goods. It is to be expected that the increase in the price of electricity, as one of the basic inputs, will be included in the price of the product by the companies, and in that way, this increase in prices will certainly be borne by the citizens. Based on the consumer price index, which remained largely unchanged in 2019, it can be concluded that companies have failed to include the increase in energy prices<sup>12</sup>, which was announced late, into the selling price, but it can be expected that in the following period there will be an increase in the prices of final products. In accordance with the requirements of the IMF, at the end of 2019, there was an increase in the price of electricity for citizens, but these increases, which are in line with inflation, cannot lead to a real improvement in the business results of EPS. Economically, this price increase was necessary. In order to improve results, it is necessary to improve efficiency in the sector (optimise the number of employees and increase investment in technology in order to reduce energy losses in transmission).

A significant drop in the operating profit rate was achieved by the *Transport and Storage Sector* (a drop of 10 pp compared to 2018). This decline has led to the operating profit rate being lower than in 2017. The significant decline in the operating profit rate compared to the previous year was largely due to the decline in operating income caused by the return of other operating income to its normal level. The amount of this segment of operating income last year was extremely high<sup>13</sup>, so the previous year the operating profit rate was briefly increased. Apart from the return of other operating revenues to the level of previous years, the decline in the operating profit rate was probably influenced by a

slight decline in transport prices, as well as a decline in the volume of passenger transport services. Although the volume of services in freight transport has remained almost unchanged, the negative is that there has been a decline in the share of air transport of goods, which is the most expensive mode of transport.

The decrease in operating profit by 0.3 pp in the *Water Supply Sector* is not surprising given that this sector has a tendency to increase operating expenses in relation to operating revenues. This is caused by too low a price of water as well as large losses in the system (of the total repressed water, 35% is not invoiced)<sup>14</sup>. Although there was a request to increase the price of water, it was not approved, but in October 2019, the fee for the operational readiness of the water supply system was adopted. The fee is calculated in a fixed amount of 118 dinars per account and will represent additional income that may help the water supply sector improve its business performance next year.

The sector of *Expert and Scientific Activities* recorded a decline in the operating profit rate of 2.2 pp, which was largely caused by the growth of spending, which was largely influenced by the growth of costs of wages and production services.

When we expand the observation of performance and, in addition to business, we look at the components of non-business results, i.e. when we look at the *total profitability* of the sector measured by net profit, we can see that only three sectors achieved growth in total profitability (Agriculture, Water Supply, and Administrative and Service Activities). Although it is to be expected that business activities dominantly determine the overall profitability, i.e. that the non-business components of results, other financial results, which are often the result of uncontrollable factors (exchange rate changes, etc.) do not significantly affect overall profitability<sup>15</sup> in many sectors that is exactly what happened in 2019. It is interesting to note that there has been a change in the *Water Supply Sector*. The decrease in the operating result compared to the previous year and the decrease in the operating profit rate are completely masked by the sharp increase in the other result<sup>16</sup> which was so significant that it led to the sector increasing the net profit rate.

Except for the above three sectors, all other observed sectors experienced a decline in the net profit rate.

<sup>12</sup> The companies received a notification about the increase in the price of electricity for 2019 in December 2018.

<sup>13</sup> Due to the high homogeneity of the sector, as well as the class of other operating revenues, it is difficult to discover the cause of this unusually high amount.

<sup>14</sup> <https://libek.org.rs/sr/vesti/2017/07/01/vest-potrosnja>

<sup>15</sup> The overall profitability of a company should be the result of the success of its core business and the business result should predetermine the overall result. Other and financial results should not be so significant as to change the overall performance of the company in relation to the performance achieved in the business segment of results.

<sup>16</sup> This segment of results is characterised by revenues and spending that are not permanent, so the result is not sustainable and this effect is unlikely to be repeated next year.



Attention should be focused only on those where there has been a change in relation to the behaviour of the operating profit rate because, as we have already pointed out, the direction of the net profit rate should not differ from the movement of the operating profit rate. The Mining, Construction, Trade, Accommodation and Food, Information and Communication sectors saw a decline in the net profit rate in the previous year, despite an increase in the operating profit rate, which means that in these sectors the non-profit components significantly affected overall performance. Since in the segment of the financial result, as stated in the introductory part, there were no significant changes, these differences were predominantly influenced by the segment of the other result.

In most of these sectors, the operating result was low due to a small difference in revenues and spending (which grew at similar rates), as a result of which the other result could affect and change the overall profitability of the sector.

Here we must single out the mining sector given the significant differences in the reported overall profitability. After achieving a net profit rate of 31.9% in 2018, this sector in 2019 achieved a net profit rate of 5.14%. This huge decline is a consequence of the fact that the net profit of the previous year was affected by too high other results, which distorted the picture of the overall success of this sector. The analysis of the financial reports showed that the cause of this other result is a very high amount of other revenues reported by the company RTB Bor. These other revenues arose as a result of the write-off of debts that were made according to the Reorganisation Plan Prepared in Advance during 2018, before the privatisation of this company. Bearing in mind that these are one-time revenues, we will get a more realistic picture of the

performance and changes in the performance of the mining sector if we exclude the amount of these other revenues from the analysis for 2018.<sup>17</sup> If we were to remove this one-off effect of reported other income, the net profit rate would be 2.2%<sup>18</sup>. Therefore, this year the mining sector would achieve an increase in the net profit rate compared to 2018, which is in line with the movement of the operating profit rate and speaks in favour of the normalisation of operations in this sector.

We will supplement the analysis of the total profitability of the sector by observing the realised *yield rates*. As at the level of the economy, the rate of Return on Total Assets (ROA) and the rate of Return on Equity (ROE) were observed. In most sectors, these rates followed the movement of profit margins, given that there were no significant changes in the efficiency of asset and capital management. There was a more noticeable increase in the turnover of property and capital in the Construction sector, and the Accommodation and Food Services sector. This increase in efficiency was enough to keep the yield of the Accommodation and Food Services sector at the same level as in 2018, although there was a drop in profitability in the sector. While in the Construction sector the increase in asset and capital turnover was a powerful enough lever to lead to an increase in ROE and ROA compared to the previous year even though there was a drop in profitability.

The first part of the analysis, at the level of the economy, showed that the performance of the Serbian economy lags behind other countries, but we must not lose sight of the fact that the decline in profitability in 2019 is noticeable at the global level. In order to get a better

<sup>17</sup> In order to gain a more realistic picture of performance, the amount of these revenues was excluded in 2018 and in the analysis of the economy because it was significant enough to distort the picture of the success of the entire economy as emphasised at the beginning of the text.

<sup>18</sup> Approximation of the author based on available data.

**Table 4. Profitability of the selected economic sectors of Serbia (2018-2019)**

|   | Operating profit margin |        | Net profit margin |       | Return on assets (ROA) |       | Return on equity (ROE) |        |
|---|-------------------------|--------|-------------------|-------|------------------------|-------|------------------------|--------|
|   | 2018                    | 2019   | 2018              | 2019  | 2018                   | 2019  | 2018                   | 2019   |
| <b>Agriculture</b>                            | 2.49%                   | 2.86%  | -0.29%            | 1.75% | 0.24%                  | 0.98% | -0.22%                 | 1.28%  |
| <b>Mining</b>                                 | 5.66%                   | 7.16%  | 31,9% (2,16%)     | 5.14% | 20,46% (1,94%)         | 3.60% | 42,86% (2,9%)          | 5.91%  |
| <b>Manufacturing industry</b>                 | 5.64%                   | 4.70%  | 3.79%             | 3.57% | 4.07%                  | 3.72% | 11.32%                 | 9.61%  |
| <b>Electricity supply</b>                     | 5.48%                   | 4.05%  | 1.26%             | 1.07% | 0.74%                  | 0.78% | 0.75%                  | 0.62%  |
| <b>Water supply</b>                           | 4.87%                   | 4.57%  | 2.17%             | 4.47% | 0.94%                  | 2.12% | 1.62%                  | 3.28%  |
| <b>Construction</b>                           | 5.26%                   | 6.48%  | 4.12%             | 3.96% | 2.38%                  | 2.42% | 5.31%                  | 6.34%  |
| <b>Wholesale and retail trade</b>             | 3.42%                   | 3.76%  | 2.25%             | 2.02% | 3.74%                  | 3.42% | 12.60%                 | 11.09% |
| <b>Transportation and storage</b>             | 13.84%                  | 3.87%  | 11.50%            | 2.12% | 7.82%                  | 2.16% | 14.34%                 | 3.51%  |
| <b>Accommodation and food services</b>        | 2.72%                   | 2.87%  | 2.07%             | 1.75% | 1.68%                  | 1.69% | 3.46%                  | 3.48%  |
| <b>Information and communication</b>          | 11.06%                  | 11.12% | 9.43%             | 8.27% | 6.91%                  | 6.27% | 19.22%                 | 17.63% |
| <b>Professional and scientific activities</b> | 8.03%                   | 5.82%  | 7.11%             | 4.74% | 3.06%                  | 2.60% | 8.30%                  | 7.12%  |
| <b>Administrative and service activities</b>  | 6.40%                   | 9.81%  | 4.86%             | 7.19% | 5.02%                  | 8.12% | 17.22%                 | 24.55% |

Source: The authors using BRA data

The numbers in brackets for the mining sector for 2018 refer to the data corrected for the realised other revenues of the company RTB Bor.

**Table 5. Comparison of the profitability of selected sectors of the Serbian economy with the world average in 2019**

|   | Operating profit margin |           | Net profit margin |           | Return on equity (ROE) |            |
|---|-------------------------|-----------|-------------------|-----------|------------------------|------------|
|   | 2019                    |           | 2019              |           | 2019                   |            |
|   | Serbia                  | Global    | Serbia            | Global    | Serbia                 | Global     |
| <b>Agriculture</b>                            | 2.90%                   | 4.70%     | 1.70%             | 2.73%     | 1.30%                  | 6.75%      |
| <b>Mining</b>                                 | 7.20%                   | 7,5-16,7% | 5.10%             | 3,8-10,5% | 5.90%                  | 5-13%      |
| <b>Manufacturing industry</b>                 | 4.70%                   | 4,8-32%   | 3.60%             | 3-14,7%   | 9.60%                  | 5,4-26,7%  |
| <b>Electricity supply</b>                     | 4.10%                   | 12.62%    | 1.10%             | 6.14%     | 0.60%                  | 7.86%      |
| <b>Water supply</b>                           | 4.60%                   | 28.03%    | 4.50%             | 16.44%    | 3.30%                  | 11.00%     |
| <b>Construction</b>                           | 6.50%                   | 10.69%    | 4.00%             | 7.70%     | 6.30%                  | 14.77%     |
| <b>Wholesale and retail trade</b>             | 3.80%                   | 3,7-5,6%  | 2.00%             | 2-5,7%    | 11.10%                 | 10,2-16,8% |
| <b>Transportation and storage</b>             | 3.90%                   | 6,9-23,2% | 2.10%             | 3,9-15,6% | 3.50%                  | 9,9-15,3%  |
| <b>Accommodation and food services</b>        | 2.90%                   | 11-14,3%  | 1.70%             | 6,7-9,1%  | 3.50%                  | 11,4-42,1% |
| <b>Information and communication</b>          | 11.10%                  | 6-25,3%   | 8.30%             | 1,9-18,4% | 17.60%                 | 2,8-31,8%  |
| <b>Professional and scientific activities</b> | 5.80%                   | 5,3-19,6% | 4.70%             | 2,9-16,3% | 7.10%                  | 7,3-14,7%  |
| <b>Administrative and service activities</b>  | 9.80%                   | NA        | 7.20%             | NA        | 24.60%                 | NA         |

Source: Authors using BRA data and <http://pages.stern.nyu.edu/~adamodar/>

picture of the success of the domestic economy in relation to the world, we will compare the performance at the level of the already mentioned, selected sectors. When comparing the performance at the sectoral level in the analysis, as well as at the level of the economy, the operating profit rate, net profit rate and Return on Equity (ROE) were used, bearing in mind that data on the rate of Return on Total Assets (ROA) are not available in the database used.

The first part of the analysis, at the level of the economy, showed that the performance of the Serbian economy lags behind other countries, but we must not lose sight of the fact that the decline in profitability in 2019 is noticeable at the global level. In order to get a better picture of the success of the domestic economy in relation to the world, we will compare the performance at the level of the already mentioned, selected sectors. When comparing the performance at the sectoral level in the analysis, as well as at the level of the economy, the operating profit rate, net profit rate and Return on Equity (ROE) were used, bearing in mind that data on the rate of Return on Total Assets (ROA) are not available in the database used.

When it comes to the rate of operating profit, a total of three domestic sectors fit within the limits of the world average (Wholesale, Information and Communication, Expert and Scientific Activities), while two are close to that average (Mining and Manufacturing industry). The largest lag of the domestic economy behind the world average was identified, as in previous years, in the Water Supply sector. This is not surprising given that the generally poorer performance of this domestic sector is caused by low water prices as well as large losses

in the system. In addition, there is an obvious lag in the Electricity Supply sector, which is also caused by the low price of this energy source. In addition to the price increase (at the end of 2019 there was an increase in the price of electricity for citizens, according to IMF requirements), improving the performance of this sector, and thus reducing the sector's lag behind the economy, needs to be achieved by increasing EPS management efficiency, as the main producer of electricity in the economy. The lag in the rate of operating profit is noticeable in the Accommodation and Food Services, caused by lower prices of these services compared to the world, as well as in the Construction sector. In addition, unlike the previous year when it achieved an operating profit rate that is within the world average, this year the Transport and Storage sector lags behind the world average, which is a consequence of the decline in the operating profit rate of this sector by 10 pp.

Looking at the overall profitability, we see that five domestic sectors are within the identified limits of the world average (Mining, Manufacturing, Wholesale Trade, Information and Communications, Expert and Scientific Activities). As in the case of business profitability, the largest lag in the net profit rate exists in the sector of Water Supply, Electricity Supply, and Accommodation and Food Services.

By comparing the rate of Return on Equity (ROE) between selected sectors of the domestic economy and the world average, we conclude that four sectors are within the limits of the world average (Mining, Manufacturing, Wholesale and Retail Trade, Information and Communication). The sector of Expert and Scientific Activities, although within the



limits of the world average in terms of the previous two indicators, lags slightly behind when it comes to the rate of Return on Equity, which may indicate less efficient capital management compared to the world average.

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