CONTRIBUTION OF MACROECONOMIC STABILITY TO THE CORPORATE SECTOR’S PERFORMANCE: THE CASE OF SERBIA

Doprinos makroekonomskome stabilnosti poslovanju privrede – primer Srbije

Abstract
The paper analyses the results of the Serbian corporate sector in the period 2013-2022, starting with groups of companies classified by their activity, size, residency of the owner and market orientation. The paper concludes that all groups of companies benefitted from stability and that they used the opportunities created on this account. In the observed ten-year period, the Serbian corporate sector recorded growth in real operating income and operating profit of 5% (8.2% in the period since 2019) and 8.5% on average per annum. Employment rose at the annual trend rate of 3.9%, and export propensity also increased, on average by 2.5 structural points a year. Simultaneously, the average annual trend rate of real GDP growth measured 2.9%, which together supports the assessment of the importance of exports for economic growth. Wage movements also indicate the multiplicative impact of economic growth on the increase in household earnings from work – both in terms of average wage growth and employment gains. If we take a step forward and split the ten-year period into two five-year periods, we can see that the total calculated financial costs on account of interest rates and exchange rate gains/losses decreased by EUR 6.9 bn, making up 37% of the total increase in corporate net profit. This is not merely about the positive impact on corporate money flows, but also about how important they are for financial potential to be more efficiently translated into expansion and/or modernisation of existing and construction of new capacities in a stable and predictable business environment. This is only one part of the direct importance of price stability and relative stability of the exchange rate for successful business performance, growth, and employment.

Keywords: operating profit, profitability, financial result, stability

Sažetak
U radu analiziram rezultate srpske privrede za period 2013-2022. godina, a polazeći od grupa preduzeća razvrstanih prema delatnosti, veličini, rezidentnosti vlasnika i tržišnoj orijentaciji. Zaključujem da su sve grupe preduzeća imale konstantan podsticaj od stabilnosti, i da su preduzeća stvorene šanse i koristila. Po tom osnovu, u posmatranom desetogodišnjem periodu srpska privreda zabeležila je rast realnih poslovnih prihoda i poslovnog dobitka od 5% (8,2% u periodu od 2019.) i 8,5% prosečno godišnje. Zaposlenost je rasla po prosečnoj godišnjoj trend stopi od 3,9%, a povećavana je i sklonost ka izvozu prosečno godišnje za 2,5 strukturnih poena. U istom periodu prosečna godišnja trend stopa realnog rasta bruto domaćeg proizvoda iznosila je 2,9%, što zajedno govori u prilog oceni značaja izvoza rastu naše privrede. I kretanje zarada ukazuje na multiplikativni uticaj privrednog rasta na rast primanja stanovništva iz radnog odnosa – kako po osnovu rasta prosečnih zarada, tako i po osnovu rasta zaposlenosti. Ako idemo korak dalje i desetogodišnji period posmatramo kao odnos dva petogodišnja perioda, vidimo da su ukupno obračunati finansijski troškovi smanjeni za 6,9 milijardi evra, što čini 37% ukupnog povećanja neto dobiti preduzeća. Pritom, ne radi se samo o pozitivnom uticaju na novčane tokove privrede, nego i o njihovom značaju, da se, u stabilnom i predvidivom poslovnom ambijentu, finansijski potencijal efikasnije pretoči u proširenje i/ili modernizaciju postojećih i izgradnju novih kapaciteta. To je samo deo direktnog značaja stabilnosti cena i relativne stabilnosti deviznog kursa za uspešnost poslovanja privrede, rast i zaposlenost.

Ključne reči: poslovni prihodi, profitabilnost, finansijski rezultat, stabilnost
Introduction

“Investment is a flighty bird that needs to be controlled,” said Sir John Richard Hicks. In other words, encouraging and keeping investments requires macroeconomic stability and certainty of business that comes along with it. This case study of Serbia is yet another confirmation of that.

Both theory and practice are unanimous in the assessment that macroeconomic policies are an important lever of sustainable economic growth. By implementing a sound economic policy, its makers send a clear message to the private sector. The extent to which they are able to ensure a sufficiently long period of sustainable results will condition the private sector’s confidence in them, which will have a feedback effect on investments, economic growth, and the living standards [3, p. 17]. Simultaneously, it is important for policy makers to have good mechanisms for evaluating the effects of the measures taken, for which there are numerous tools, including the analysis of financial results and the position of its economy, i.e. the entities it is made of. Information from companies’ financial statements is a product of market and institutional conditions in which they operate, which makes the analysis of this information by economic policy makers important not only for structural policies, but also for non-selective policies because it takes into account the heterogeneity of the economy [1, pp. 1-4], in order to get a more comprehensive picture of the scope and effects of the measures they bring and implement.

There is also the question of looking at the effects of the interaction of different economic policies in order to achieve a full synergistic effect on the performance of business entities and achieve different economic goals. The approach gains additional importance in the face of multiple challenges, especially if managing them requires complex responses that should overcome potentially conflicting goals. Thus, changes in the conditions of external financing from global markets, against the current backdrop of mutual intertwining of mutual intertwining, are quickly transmitted, especially to small and open economies. For example, if the tightening of global financial conditions causes a flight of capital to advanced countries and a consequent depreciation of the exchange rate of the local currency in a developing country with an overheated market, inflation will rise under the influence of the exchange rate pass-through effect on domestic prices. The tightening of monetary policy, as an expected response aimed at curbing inflation, has a further negative effect on production [4, p. 5].

An excellent example of conflicting goals are current challenges on a global scale. For example, difficulties in redesigning global production and transport chains whose functioning has been impaired by sudden changes in market and logistics circumstances, along with the prolonged effects of the pandemic, are having a negative impact on both economic growth and inflation. Furthermore, geopolitical tensions, which also have an economic background and are rapidly gaining intensity, make the distribution of the effects of globalisation considerably more complicated, clouding globalisation prospects. As part of the monetary policy response, leading central banks relatively quickly replaced the multi-year unconventional monetary easing with aggressive tightening. Now the question of the measure of the response has been opened – response to bring inflation back to target levels in a sustainable manner, with the least possible effect on economic growth. These are all conditions that are transmitted from global markets to all economies, and they can make business difficult, especially so in small and open economies. That is why the individual responses of policy makers are a true indicator of the ability to navigate domestic economies through numerous challenges. They are also an indicator of what their response will be to the new global context, namely, the challenges of an uncertain future.

This paper analyses the trends of business activity, operating financial results and the financial position of companies in Serbia in the period from 2013 to 2022. Since it is a relatively long period of time, the analysis also contains structural indicators, i.e. trends in the economy were analysed depending on the company’s activity, size, residency of the owner and market orientation, as well as according to several criteria for classifying companies. At the same time, the operating results in different periods within the ten-year period were analysed, especially the character of deviations from long-term trends in the period since the beginning of the pandemic. All analyses were done using data from the financial statements of non-
financial entities collected by the Serbian Business Registers Agency (see Appendix), and the approach in classifying companies focused on their specificities in production and access to commodity and financial markets.

Lastly, the analysis placed special emphasis on the effects of monetary and fiscal policy measures, given that they are the two pillars of a stable business environment. As the two basic economic functions of the state, monetary and fiscal policy play a key role in ensuring economic stability and confidence in policy makers. Both policies have privileged powers to redistribute economic resources in society [5, p. 42]. Still, the effects of these policies will depend on confidence in the state [5, p. 45], which is created by adopting adequate and timely decisions and implementing them consistently over a longer period. All results obtained by analysing company data in Serbia in the observed ten-year period confirm the existence of confidence in policy makers.

Ten years of robust growth in business activity

In the period 2013-2022, the Serbian economy recorded robust growth in business activity and productivity.

The business expansion of the Serbian economy is unequivocally confirmed by the growth in operating income, which in that period increased at an average annual trend rate of 8.2% or cumulatively by 115.5%. Deflated by the implicit GDP deflator, as a measure of the aggregate price growth, operating income in that period grew at an average annual rate of 5.0%, which is a cumulative increase of 57.9% (compared to the base year 2013).

Observed by five-year periods, the trend rate of growth of real operating income accelerated in the second part of the period – from 3.5% (2013-2017) to 6.9% (2018-2022). In other words, in the second five years of the observed period, three quarters of the cumulative increase in real operating income of the Serbian economy was realised. The importance of the achieved growth is reinforced by the fact that such result was attained even though the Serbian economy, as well as the global economy in this period, was burdened with the negative effects of the pandemic and the escalating geopolitical and geoeconomic tensions. This was only temporarily reflected as slower growth of operating income (quite expectedly in the pandemic year of 2020) but was quickly offset in the last two years of the observed period, thanks to the economic policy measures taken to mitigate the negative effects of numerous global macroeconomic shocks (Figure 1). Even with the tightened monetary policy in 2022, the tendencies in the movement of cash flows, liquidity and solvency remained favourable, so also did and their effect on the business activity, which is opposite to theoretical expectations [10, p. 26].

Owing to the increase in business activity, during the observed period the Serbian economy recorded constant growth in employment, at an average annual trend rate of 3.9%. In the same period, real operating income per employee, as an indicator of productivity, increased at an average annual rate of 1.1% or cumulatively by 15.8%.

![Figure 1: Dynamics of real operating income and employment, 2013 = 100](image)

Source: Business Registers Agency and author’s calculation
Such outcome would not have been possible without the numerous measures of state support to companies, both for their operations and employment.

The fact that in the observed period growth was widely dispersed and driven by exports and investments also shows that the diffusion of growth in business activity was complete. Such conclusion is indicated by the analyses of corporate performance, which, for the purposes of this paper, were done taking into account different criteria for grouping companies: 1) core activity, 2) company size, 3) residency of the owner, and 4) market orientation. Data aggregated in this manner confirm that the rising tendency of business activity in the period 2013-2022 was present in all observed groups of companies.

According to the first criterion, the very insight into the dynamics of operating income by activity, where the

---

See Appendix for all classification groups.
most dynamic growth is recorded in construction, at an average annual rate of 12.7% in real terms (151.2% for the entire period), confirms that investments significantly encouraged growth of business activity. In addition to construction, above-average growth was achieved by companies from numerous other groups of activities (Figure 2), which, along with the fact that none of the activity groups recorded a decreasing trend, demonstrates that growth of operating income was also strongly diversified.

If we look at the structural trends according to company size, the average real growth of operating income in the period 2013-2022 was the fastest in the group of medium-sized enterprises (6.0%). Large enterprises recorded average real growth of operating income of 5.5% per annum, small enterprises 4.4% and micro-enterprises 0.9%. The importance of company size for analysing the impact of economic policy was pointed out by Gertler and Gilchrist even back in 1994 [8, pp. 338-339].

Observed according to the residency of capital owners, average real growth of operating income in the period 2013-2022 was high both in companies in majority resident ownership (4.8%) and in those in majority non-resident ownership (5.4%). This difference is almost completely lost when the power industry is excluded from the analysis.

A contribution to the increase in investment potential also came from FDI inflow, which in the observed period amounted to EUR 28.5 bn, more than half of which pertaining to investments in equity capital without reinvested earnings. The liabilities of the international investment position also increased on this account as direct investments more than doubled and amounted to EUR 50.2 bn at end-2022, of which EUR 30.1 bn (60%) in equity capital without reinvested earnings.

The business assets of companies in majority resident and non-resident ownership also recorded high growth in the observed period (Figure 3 and Figure 4), whereby, based on the strong inflow of direct investments, companies in majority non-resident ownership increased their participation in the business assets of the economy – from 23.7% at end-2013 to 27.6% at end-2022. The business assets of these companies recorded an average annual growth of 5.1%, while the business assets of the economy as a whole grew at an average annual rate of 3.3%.

Thanks to high investments in new as well as existing capacities in the observed ten-year period, the contribution of companies in majority non-resident ownership to the cumulative growth of real operating income of the economy amounted to 34%, and the contribution to employment growth exceeded 35% (120,500 new jobs, of which more than a half in the last and most challenging three years of the observed period). In addition to the direct effect, also significant is the indirect impact of increased household income from rising wages and employment on higher demand for products and services in the domestic market, as well as on the payment of tax obligations. This is where the synergistic effect is reflected, i.e. the positive feedback effect of growth on total investments, public finances, and stepped-up investments in infrastructure.

Figure 3: Dynamics of real FDI to Serbia, operating income, assets and employment of companies in majority non-resident ownership, 2013 = 100

Source: Business Registers Agency and author's calculation
At the same time, companies in majority resident ownership have remained the pillar of the Serbian economy – accounting for 72.4% of employed assets, 68.4% of operating income, 73.2% of capital and 77.5% of total employment.

Real operating income of this group of companies rose at an average annual trend rate of 4.8% (Figure 4). This growth significantly facilitated the process of structural adjustment of these companies, so in this period employment increased at an average annual rate of 3%, with increased efficiency of asset utilisation – turnover of business assets went up from 0.62 in 2013 to 1.05 in 2022, and of working capital from 1.59 to 1.87, respectively. Thanks to this, the operating profit in this group of companies rose faster than in the total corporate sector – at the rate of 8.9% vs. 8.5% on average per annum.

Also, the business assets of companies which sell a major part of their products and services in foreign markets are growing in importance – from 12.3% at end-2013 to 16.2% at end-2022. Such trends are the result of investment in the expansion of business capacities, and of the prevalent tendency where domestic companies are increasingly integrating in the international division of labour. These movements confirm the strength of our economy to structurally adjust and respond to market challenges through greater diversification of export markets. These companies have also recorded a faster real growth of operating income since 2013 compared to those selling their products domestically (on average 7.7% vs. 4.6%, respectively). Consequently, the contribution of this group of companies to the cumulative growth in real

---

**Figure 4: Dynamics of operating income, assets, profit and employment of companies in majority resident ownership, 2013 = 100**

Source: Business Registers Agency and author’s calculation

**Figure 5: Dynamics of Serbian exports and real operating income, assets and employment of predominantly export-oriented companies, 2013 = 100**

Source: Serbian Business Registers Agency and author’s calculation
operating income of corporates equalled 30.2%, and to the rise in employment – 41.2% (around 141.5 thousand of new jobs). Also, the movement in their business activities corresponds quite well to the movement of goods and services exports for the whole of Serbia (Figure 5).

The growing propensity to export is indicated by macroeconomic data as well – the share of goods and services exports in the Serbian GDP increased from 38.3% in 2013 to 63.0% in 2022, or by an average of 2.5 structural points annually. In the same period the average annual trend rate of real GDP growth measured 2.9%, speaking in favour of the importance of exports for the growth of our economy in the period observed.

Going one step further and observing the movements in five-year periods (2013-2017 vs. 2018-2022), in this latter period, due to the pandemic effects, growth slowed in food and accommodation, though real operating income in this sector reached the 2019 pre-pandemic level already in 2022. With the strengthening of geopolitical tensions and weakening of global growth prospects, and thereby also the external demand for investment assets, growth slackened in the machinery industry too. Conversely, real operating income in construction, just like in most other sectors, picked up in 2018-2022 compared to 2013-2017, and the sector’s share in corporate operating income rose from 5.5% in 2013 to 8.7% in 2022. The accelerated growth of construction indicates that the domestic economy not only preserved, but also increased its investment potential.

Finally, while the observed period is also marked by highly adverse economic repercussions of the pandemic and geopolitical developments, the effects of undertaken economic policy measures in Serbia made it possible, in an extremely challenging business environment of 2019-2022, to not only preserve but also accelerate the growth in real operating income – to 8.2% vs. 5% throughout the period observed.

Sector-wise, positive growth rates in this period as well (2019-2022) were recorded across all groups, although with varying dynamics (Figure 6).

In terms of owner residency, the rise in operating income is sharper than the period average, both in majority non-resident owned (10%) and majority resident owned (7.5%) companies.

Looking at company size, large enterprises recorded a significant acceleration in operating income growth – from 5.5% to 13.7%. Micro, small and medium-sized enterprises posted a rise in operating income of 3.8%, compared to the trend rate of 4.5% annually throughout the period.

Predominantly export-oriented companies continue to record faster average growth in operating income than companies largely focused on the domestic market (14.8% on average annually vs. 7.7%, respectively).

Figure 6: Average rise in real operating income by sector, 2013-2022 and 2019-2022

Source: Serbian Business Registers Agency and author's calculation
Interestingly, in this period, in the group of predominantly export-oriented companies, majority resident owned companies experienced more dynamic growth in operating income compared to majority non-resident owned companies (16.1% vs. 13.9%, respectively). The contribution of the group of companies that are mainly export-oriented to the rise in operating income of corporates from 2019 to 2022 amounted to 34.3%, though their share in operating income in the base year (2019) stood at 18.0%.

Prior data point to numerous conclusions regarding the dynamics of business activity of the Serbian corporate sector in the period 2013-2022 and in the sub-periods observed:

- **First**, the rise in real operating income of 5% on average annually over a ten-year period suggests a substantial increase in corporate business activity. The trend growth rate of real operating income stepping up from 3.5% in 2013-2017 to 6.9% in 2018-2022 speaks of the sustainability of this result.
- **Second**, the growth is widely dispersed when observed by sector, while changes in the structure of production may be associated with the changes in the structure of demand, including the changes in price position.
- **Third**, medium-sized enterprises have recorded robust growth, as well as an increased sensitivity to the change in market circumstances, while large enterprises proved significant in production sectors and trade. Small enterprises have also posted a high average growth rate.
- **Fourth**, majority non-resident owned companies have used their comparative advantages in the foreign market, while in parallel, the competitiveness of majority resident owned companies has strengthened as well.
- **Fifth**, the rise in real operating income, especially in the foreign market, unambiguously shows that the growth of the Serbian economy correlates with the growth in competitiveness and export propensity, underlying which are the growth of investments in the expansion and modernisation of capacities, as well as the transfer of technology and introduction of new business models. The data that the share of goods and services in the Serbian GDP rose on average by 2.5 structural points per annum, while the average annual trend rate of real GDP growth measured 2.9%, clearly speaks in favour of the significance of exports for the growth of our economy.
- **Sixth**, thanks to the timely and generous policy response, even in the most challenging period plagued by the adverse impact of the pandemic and the heightening of geopolitical and geoeconomic tensions (2019–2022), not only that the rise in operating income was maintained, but was also stepped up to 8.2% (compared to 5% over a ten-year period).
- **Seventh conclusion**, bringing together all the above, is that the rise in operating income is an important factor of reducing unit costs in production, boosting profitability and strengthening the financial position of the domestic economy, which confirms its sustainability.

**Higher operating profit: A reflection of corporate inventiveness and stable conditions**

A long period of macroeconomic and financial stability opened up the possibilities for corporates to direct their human and financial capacities toward regular business activities. That they have truly used those possibilities is proven by corporate financial statements.

Specifically, the share of operating in total corporate income rose from 94.5% to 97.1% since 2013, evidencing that our corporates are now more focused on business results. On the other hand, under the impact of the same factors, the share of operating in total expenses increased from 89.6% to 96.3%, i.e. non-operating expenses have been on a decline. Both data corroborate the fact that our corporate sector has increasingly focused on business results, as confirmed by other analyses as well.

The data showing that since 2013 the average annual real rise in operating income (5.0%) surpassed the average annual real rise in operating expenses (4.7%) suggest a decrease in unit costs in production. This result can be associated with the effects of the economy of scale and modernisation of capacities owing to the rising
investments and to a lesser degree to the terms of trade, given a relatively long time period in question. The impact of investments on the reduction of corporate unit costs is also suggested by the changes in the composition of operating expenses, i.e. a decrease in the share of variable expenses – from 84.3% in 2013 to 83.5% in 2022. A closer look shows that the decrease in the share of variable expenses stems to a lesser degree from higher depreciation and more from the rise in employee income. Specifically, the share of wages in corporate operating expenses went up from 11.6% in 2013 to 13.1% in 2022, indicating that economic growth had a multiplier effect on the rise in employee income – both in terms of the rise in average wages and employment.

Sector-wise, the dynamics of operating expenses largely depends on the relative dynamics of operating income, while other influences arise from the specificity of a particular activity, including the effects of changes in the domestic and global market. Observed by sector, the below-average growth in real operating expenses was seen in agriculture, power industry, production of transport equipment and food, beverages and tobacco. On the other hand, a relatively swift growth in real operating expenses was recorded in construction, food and accommodation, other activities, trade in motor vehicles, machinery industry and electroindustry.

As for the composition of operating income, majority resident owned companies have seen a relatively more stable share of variable expenses in total operating expenses. At the same time, the wage dynamics is similar in both groups of companies, except that allocations for this purpose in majority resident owned companies are higher, when observed relative to total operating expenses.

As a result of movements analysed above, in the period 2013-2022 the Serbian corporate sector saw a real rise in operating profit of 8.5% on average per annum. In 2022, operating profit turned out 2.2 times higher than in the base year (2013), making up 6.3% of operating income.

Sector-wise, the most vibrant growth in operating profit was recorded in construction (at the annual trend rate of 32.6%), motor vehicles trade (16.1%), production of chemicals and pharmaceuticals (14.9%), machinery industry (14.1%), light industry (11.4%) and retail trade (10.9%). Of course, a part of this dynamics stemmed also from the low base in some sectors in the initial years of the period observed.

Observed by company size, the fastest growth in operating profit was posted by medium-sized enterprises (13.5%), while the average ratio of operating profit and income in the period from 2013 to 2022 was the most favourable in small enterprises (5.6%).

Looking at the upward trend of operating profit by company ownership, it goes deeper into positive territory in companies that are majority resident owned (8.9% vs. 7.7% on average, respectively). This among other things reflects a lower base, but surely suggests there is a tendency of gradual narrowing of the difference in corporate business results according to the majority owner residency, observed relative to operating income. This confirms that foreign direct investments, as well as the development of business cooperation between domestic companies and companies included in international value chains, have had strong diffusion effects on business models and practices of companies in majority ownership of residents.

Observing companies by market orientation, a faster rise in operating profit is recorded in companies which predominantly sell their products in foreign markets (18.4% vs. 6.5% on average per annum). The share of operating profit in operating income is higher among companies which are predominant exporters and in 2022 that share stood at 7.3% relative to 6.4%. In this case as well, the narrowing of the difference between the two can be associated with the positive effects of the process of a wider integration of our economy into global economic flows.

Based on the above analyses, several conclusions regarding the period 2013-2022 can be made:

- **First**, the rise in real operating income outpaced the dynamics of real operating expenses, which directly manifested as the growing operating profit of corporates. This confirms that robust growth in business activity is also financially viable.
- **Second**, the share of operating expenses in total corporate expenses climbed to over 96%, making non-operating expenses less and less important for the total financial result of the corporate sector,
which is an expected effect of macroeconomic and financial stability.

- *Third*, the importance of variable expenses within operating expenses has weakened, mainly as a result of 1) increase in salaries and other employee income, which boosts the living standards of the population, and 2) depreciation, as a result of increased investments, also serving as a basis for future investments.

- *Fourth*, the rise in the salaries’ share in operating expenses of corporates from 11.6% in 2013 to 13.1% in 2022, in combination with other ratios, suggests that economic growth had a multiplier effect on the growth of employee income – both in terms of the rise in average wages and employment.

- *Fifth*, the tendency of gradual narrowing of the difference between operating profit of companies by the majority owner residency, when compared to operating income, confirms that FDIs and the development of business cooperation of domestic companies with those integrated in international value chains have had a strong diffusion effect on business models and practices of majority resident owned companies.

- *Sixth*, high operating profit to operating income throughout the period was realised by companies which to a larger degree sell their products in foreign markets, but this difference is gradually decreasing, indicating that the export sector is strongly integrated in the Serbian economy as a whole.

### Profitability growth underpinned by more favourable results from financial activities

In the period from 2013 to 2022 real net profit of corporates increased at an average annual trend rate of 8.3%, while real net loss decreased at a rate of 7.4%. Concurrently, total corporate income rose at an average annual trend rate of 4.6%. Owing to this, total net profit of corporates relative to total income rose from 0.0% in 2013 to 4.8% in 2022.

The share of operating profit in total income also increased, from 4.3% to 6.1%, respectively (Figure 7).

Apart from this, the rise in operating and financial result in the last three years of the period observed, marked by the negative effects of the pandemic and heightened geopolitical tensions, supports the fact that the resilience of the Serbian economy has been preserved. This was achieved thanks to the fact that, on the eve of the pandemic, Serbia significantly improved its macroeconomic indicators – the commitment to fiscal consolidation was confirmed, the budget was balanced for the third year in a row, inflation was around 2%, the unemployment rate was below 10%, and growth was in positive territory (4, 0 percent) [6, p. 6]. During the first year of the pandemic Serbia’s economy performed better than expected and kept going based on the public sector as a stable core of economic activity as well as the private sector in infrastructure, construction, agriculture, energy, ICT, food processing, financial services, e-commerce and digital logistics [7, p. 129].

All this together confirms also the theoretical and empirical conclusions that the total profitability growth of

---

**Figure 7: Total net profit and operating profit, in %, total income = 100**

[Graph showing total profit and operating profit from 2013 to 2022]

*Source: Serbian Business Registers Agency and author’s calculation*
corporates is supported significantly not only by the higher operating profit, but also by the stability of macroeconomic and financial conditions. Still, in order to quantify this conclusion, i.e. to specify in more detail the contribution of key factors to the change in corporate net profit, we have observed changes in the level of operating profit and financial expenses (interest and exchange rate gains/losses) in the period 2018-2022 relative to the preceding five-year period (Figure 8). With this, the analysis of the effects of monetary policy measures on the movement of financial costs of the economy, which the NBS regularly conducts [11, p. 40], has been enriched by inclusion of sector, size of the corporation, owner’s residency and market orientation.

As indicated by the data analysis, in the second five-year period, the corporate sector cumulatively increased its net profit by EUR 18.6 bn – owing primarily to a more favourable business sub-balance, which contributed EUR 10.3 bn (55.6% of the net profit increase).

Based on calculated interest expenses, the corporate sector saved an additional EUR 2.4 bn, which accounted for a 13.8% increase in net profit.

Calculated exchange rate losses fell by EUR 4.5 bn, accounting for 24.2% of the increase in total net profit.

Total calculated minor financial costs based on interest and exchange rate gains/losses amounted to EUR 6.9 bn or 37% of the total increase in net profit, if we compare two five-year periods.

If we look at the cumulative profit arising from a reduction in interest expenses and exchange rate losses in relation to total income in 2022, it amounted to 6.1% (a 2.1% reduction in interest expenses and a 4.0% reduction in exchange rate losses) at the level of the entire corporate sector.

Such quantified effect unequivocally confirms the importance of price stability and relative exchange rate stability for the success of our corporate sector and, by extension, for growth and employment. It is not only about the positive impact on corporate sector cash flows, which generate additional own funds for investments, but also about their importance for the provision of additional external financial support. Moreover, based on the predictability of the business environment, the financial potential of the corporate sector can be more efficiently translated into the expansion and/or modernisation of existing and the construction of new capacities.

Figure 8 shows the distribution of these effects by activity, company size, owner residency and dominant orientation in sales markets.

In terms of the sources of profit by activity, the contribution of the financial costs reduction to a more favourable corporate financial result is a general phenomenon. The extent to which this was used to expand business activity in some areas was also determined by market circumstances.

In terms of company size, all groups recorded positive effects on net profit based on a reduction in interest expenses and exchange rate losses, which suggests overall profit. The biggest relative winner were micro-enterprises, where this reduction equalled 11.2% of the income recorded in 2022. Both small and large enterprises trended at an average level, with a profit of 6.1% and 6.0% of total income recorded in 2022. This indicator for medium-sized enterprises stood at 4.9%.

In terms of owner residency, relatively bigger winners were companies in majority resident ownership, where this reduction equalled 6.3% of total income in 2022, vs. 5.7% of total income in case of companies in majority non-resident ownership.

In terms of market orientation, the most striking relative winners were companies selling their products mainly in the domestic market – in their case, the effects of the reduction in interest expenses and exchange rate losses amounted to 6.2% of the operating income recorded in 2022, vs. 4.0% in case of companies that are predominant exporters.

The analysis points to several conclusions:

- **First**, the Serbian corporate sector as a whole, as well as in certain segments, recorded a significant increase in total profit, driven mainly by an increase in operating profit, confirming the sustainability of the growth model.
- **Second**, a strong contribution to initiating and preserving the growth of business activity in the profitability zone came from a significant reduction in financial expenses based on interest and exchange rate gains/losses.
• Third, total calculated minor financial costs arising from interest and exchange rate gains/losses amounted to EUR 6.9 bn or 37% of the total increase in net profit if we compare two five-year periods (2018–2022 vs. 2013–2017), which leads us to the conclusion that price stability and relative stability of the exchange rate are a general good beneficial to the corporate sector's performance, and hence to economic growth and employment.

• Fourth, a positive synergistic effect was realised through the strengthening of the domestic economy's resilience to external shocks, as demonstrated in the period of the pandemic and mounting geopolitical tensions.

Figure 8: Sources of changes in the financial result in 2018-2022 compared to 2013-2017

Source: Serbian Business Registers Agency and author’s calculation
Financial position of the corporate sector

The corporate sector’s success in the short run is inextricably linked to its financial position, given that it ensures internal conditions for further financing of production, while maintaining success in the long run contributes to the strengthening of this position and the availability of adequate external financial sources.

We shall here place an emphasis on turnover indicators, i.e. the corporate sector’s readiness to use available funds as efficiently as possible at a given level of business activity and liquidity. What do the data tell us?

In 2013-2022, Serbian companies were more efficient in using the available funds, as also confirmed by the asset turnover ratio, which rose from 0.68 in 2013 to 1.12 in 2022. In 2022, corporate operating income exceeded business assets by 12%.

As the working capital turnover ratio also increased, circulating assets turned over in less than six months on average in 2022, while in 2013 it took seven months. The working capital structure showed the tendency of a rising share of inventories (from 27.8% in 2013 to 35.2% in 2022), and a decrease in receivables.

The turnover of total corporate inventories was relatively stable – full turnover was achieved in less than two months, while the later years of the period observed also saw an increased tendency to hold inventories, in response to global supply chain disruptions (Figure 9).

The Serbian corporate sector was constantly enhancing the efficiency of the collection of its receivables based on sale. In 2013-2022, the customer turnover ratio increased from 4.7 to 6.8, i.e. the average collection period decreased from 77 to 53 days (Figure 10). Observed by groups of activities, the most pronounced tendency of customer
turnover growth was seen in mining and production of petroleum products, trade in motor vehicles, the power industry and retail trade.

In parallel with a more efficient collection of receivables, the timeliness in the settlement of liabilities based on the procurement of production inputs also increased. In other words, on the liabilities side, the turnover of suppliers also went up – from 3.7 in 2013 to 5.0 in 2022 (the average payment period declined from 99 to 73 days).

A more timely collection of business receivables and settlement of liabilities is also indicated by the diminished importance of spontaneous financing in short-term sources – from 42.9% in 2013 to 40.0% in 2022.

All this suggests that our corporate sector is being increasingly integrated into the world corporate sector, not only through exports, but also through the business policy pursued in relation to suppliers and customers.

The coefficient of own financing was also on the rise until late-2019, reflecting the growth in profitability of the domestic corporate sector over a longer period, which impacted an increase in the share of capital in balance sheet liabilities. However, over the next three years, the coefficient was reduced, which was partly an expected business reaction to the supply of relatively more favourable loans under the government guarantee scheme, introduced to mitigate the fallout from the pandemic. In other words, a significant contribution to alleviating the consequences of the pandemic and geopolitical tensions on the corporate sector balance came from government guarantee schemes, given that through them, the most vulnerable segments of the corporate sector were given access to relatively favourable long-term sources of funding, which ensured the preservation of not only the capacities, but also the operation of these entities. As a result, the corporate sector was able to maintain the trend of decreasing importance of short-term credit sources, whose share in short-term sources declined from 32.4% in 2013 to 29.1% in 2022.

Corporate liquidity also showed a clear tendency of growth. This was a synergistic result of financially sustainable sources of growth in the corporate sector’s business activity and macroeconomic and financial stability, which also contributed to strengthening the economy’s resilience to external shocks. Looking at the ratio of working capital and short-term liabilities, the general liquidity ratio increased from 0.92 in 2013 to 0.99 in 2022 (Figure 11). The impact of liquidity and borrowing costs on investments was pointed out by Priit Jeenes in an extensive analysis at the level of firms in the USA [9].

**Analysis of cash flows from business activities, investments and financing**

Other indicators of the corporate sector’s performance also suggest that the synergy of profitability growth in corporate operations and macroeconomic stability is an important prerequisite for a positive outlook of the overall economy.

One of such indicators is the net cash inflow from business activities, which in the observed period grew at a real average annual trend rate of 18.5%.

![Figure 11: General liquidity ratio](source: Serbian Business Registers Agency and author’s calculation)
The growth tendency was recorded in all groups of activities (Table 1). Growth was the most intensive in construction, the machinery industry, retail trade, and production of chemical, pharmaceutical, rubber and plastic products. Above-average growth dynamics were recorded by medium-sized enterprises, companies in majority resident ownership, as well as those that export the bulk of their output.

In absolute terms, the net inflow of cash increased almost fivefold in the observed ten years – from RSD 315 bn in 2013 to RSD 1,547 bn in 2022.

Also, interest payments, which declined in real terms by 52.2% in 2022 relative to 2013, were one of the factors that enabled greater reliance on loans for production-expanding and investing purposes, while also opening up space for wage and employment growth, including a more timely settlement of liabilities.

Structural trends within the sample, if we compare two five-year periods, indicate that the real growth in monetary outlays for the expansion and modernisation of capacities was recorded in all groups of activities, notably in transport, the power industry, machinery production and construction. In the same period, a significant net inflow based on loans was recorded in other activities, the power industry, transport and construction, i.e. mainly in the groups of activities that registered the largest payments based on fixed investments.

In terms of the residency of the owners of companies covered by the sample, if we compare two five-year periods, higher growth of payments based on fixed investments was recorded by companies in majority non-resident ownership (although total investments were higher in companies in majority resident ownership), but credit support was directed mainly to companies in majority resident ownership (Table 2).

Overall in 2018–2022, payments for the procurement of new intangible assets, property, plant, equipment and biological assets increased by 55.8% compared to the preceding five-year period. Reduced to 2013 prices, that increase amounted to RSD 205 bn. In the same period, the net inflow based on loans increased, in comparable prices, by almost the same amount, i.e. RSD 208 bn (Table 2). The fact that the corporate sector’s cash payments for interest decreased despite the increase in net loan proceeds also speaks in favour of the importance of macroeconomic stability.

Considerably higher net cash inflows reflect rising operating income, improved productivity, and the positive effects of the economy of scale. At the same time, they form a basis for stepping up investment and strengthening the companies’ financial position, which, coupled with macroeconomic stability, reinforces the medium-term outlook of the Serbian economy.

### Table 1: Calculation of net cash inflow from business activity, in RSD bn

<table>
<thead>
<tr>
<th></th>
<th>2013-17</th>
<th>2018-22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>425</td>
<td>899</td>
</tr>
<tr>
<td>According to activity group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture, forestry and fishery</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>Mining and petroleum products</td>
<td>42</td>
<td>94</td>
</tr>
<tr>
<td>Food, beverages and tobacco</td>
<td>25</td>
<td>63</td>
</tr>
<tr>
<td>Light industry</td>
<td>17</td>
<td>32</td>
</tr>
<tr>
<td>Chemical and pharm. industry, rubber and plastic</td>
<td>31</td>
<td>52</td>
</tr>
<tr>
<td>Base metals and metallic constructions</td>
<td>3</td>
<td>26</td>
</tr>
<tr>
<td>Electroindustry</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Machinery industry</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Transport equipment</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>Other manufacturing</td>
<td>20</td>
<td>34</td>
</tr>
<tr>
<td>Power industry</td>
<td>62</td>
<td>59</td>
</tr>
<tr>
<td>Construction</td>
<td>16</td>
<td>80</td>
</tr>
<tr>
<td>Trade in motor vehicles</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>48</td>
<td>110</td>
</tr>
<tr>
<td>Retail trade</td>
<td>15</td>
<td>38</td>
</tr>
<tr>
<td>Transport</td>
<td>14</td>
<td>56</td>
</tr>
<tr>
<td>Food and accommodation</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Other activities</td>
<td>82</td>
<td>184</td>
</tr>
<tr>
<td>According to company size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Micro</td>
<td>-35</td>
<td>6</td>
</tr>
<tr>
<td>Small</td>
<td>106</td>
<td>173</td>
</tr>
<tr>
<td>Medium-sized</td>
<td>86</td>
<td>205</td>
</tr>
<tr>
<td>Large</td>
<td>269</td>
<td>515</td>
</tr>
</tbody>
</table>

Source: Serbian Business Registers Agency and author’s calculation

---

“We might as reasonably dispute whether it is the upper or the under blade of a pair of scissors that cuts a piece of paper, as whether value is governed by utility or cost of production”, said Alfred Marshall. For many phenomena, questions can be raised as to what came first. This is why it is important to have the results of analyses that will unequivocally confirm what contributed to what. It is
precisely with the aim of quantifying the contribution of macroeconomic stability to the corporate sector’s performance in the period 2013-2022 that I have analysed in this paper the trends in business activity, financial results and the financial position of companies in Serbia.

The vitality of our economy is unequivocally confirmed by the stable growth of business activity and its sources – the 5% annual growth of real operating income in the period 2013-2022 was achieved thanks to the multiplier effect of a strong increase in investments and exports. This is evidenced by the buoyant business activity of companies operating in the sectors that are dependent on investment demand (such as construction and machinery industries with the annual growth of 12.7% and 8.2%, respectively) and companies that export most of their products to international markets (with the average annual growth of 7.7%). The business assets of companies in this period increased at the average annual rate of 3.3%.

Such a model of growth, based on stable business conditions and the inventiveness of Serbian companies, was not given to us, but was rather gradually and systematically established. It is good and predictable policies, policy coordination, and sound and stable macroeconomic conditions that have made Serbia a desirable investment destination and an environment in which both resident and non-resident investors are increasingly implementing long-term business plans.

At the same time, FDI inflow (EUR 28.5 bn in the observed ten-year period) financially supported the modernisation and expansion of capacities and the strengthening of the competitiveness of the domestic companies, not only directly but also indirectly through the spread of new technological know-how and business practices to the economy as a whole. The results of companies owned by residents clearly show that the pitfalls of the dual economy were successfully dodged, as these companies recorded growth in operating income (4.8% per year), but also better resource efficiency – average annual growth in asset turnover and productivity of 5.2% and 1.8%, respectively.

The structural adjustment in the ten-year period was undeniably supported by the necessary financial

<table>
<thead>
<tr>
<th>Table 2: Payments for investments and net inflows from loans, in RSD bn</th>
</tr>
</thead>
<tbody>
<tr>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Outflows for the purchase of intangible and tangible assets</td>
</tr>
<tr>
<td>According to activity group</td>
</tr>
<tr>
<td>Agriculture, forestry and fishery</td>
</tr>
<tr>
<td>Mining and petroleum products</td>
</tr>
<tr>
<td>Food, beverages and tobacco</td>
</tr>
<tr>
<td>Light industry</td>
</tr>
<tr>
<td>Chemical and pharm. industry, rubber and plastic</td>
</tr>
<tr>
<td>Base metals and metallic constructions</td>
</tr>
<tr>
<td>Electroindustry</td>
</tr>
<tr>
<td>Machinery industry</td>
</tr>
<tr>
<td>Transport equipment</td>
</tr>
<tr>
<td>Other manufacturing</td>
</tr>
<tr>
<td>Power industry</td>
</tr>
<tr>
<td>Construction</td>
</tr>
<tr>
<td>Trade in motor vehicles</td>
</tr>
<tr>
<td>Wholesale trade</td>
</tr>
<tr>
<td>Retail trade</td>
</tr>
<tr>
<td>Transport</td>
</tr>
<tr>
<td>Food and accommodation</td>
</tr>
<tr>
<td>Other activities</td>
</tr>
<tr>
<td>According to owner residency</td>
</tr>
<tr>
<td>Majority resident capital</td>
</tr>
<tr>
<td>Majority non-resident capital</td>
</tr>
</tbody>
</table>

Source: Serbian Business Registers Agency and author’s calculation
Economic Growth and Development

We should look no further than the directly measurable effects of reduced interest expenses and exchange rate losses, which clearly show that Serbian companies recorded considerably lower costs in respect of financing activities during this period. To be quite specific, in the period 2018-2022, these costs were lower by EUR 6.9 bn or 37% of the total increase in net profit, if we compare two five-year periods (2018-2022 and 2013-2017), which leads us to the conclusion that price stability and relative stability of the exchange rate are a general good beneficial to the corporate sector’s performance, and hence to economic growth and employment. Also, interest payments, which declined in real terms by 52.2% in 2022 relative to 2013, are one of the factors that enabled greater reliance on loans for production-expanding and investing purposes.

Business growth and increased investment in capacity expansion and modernisation, along with productivity gains, reduced unit operating costs and improved competitiveness laid the groundwork for an 8.5% real annual increase in operating profit, whereby its share in total income climbed from 4.3% in 2013 to 6.1% in 2022. Thanks to the increase in operating profit and the reduction of financial costs, the net profit of the corporate sector increased significantly – from 0% in 2013 to 4.8% of total income in 2022.

In parallel with the increase in profitability, and as a result of higher liquidity and rising net cash inflow from business activities, the corporate sector’s timeliness in the settlement of liabilities improved, leading to a significantly stepped-up turnover of customers and suppliers.

Along with positive trends in cash flows, higher profitability also contributes to the strengthening of the corporate sector’s financial performance, confirming the sustainability of the companies’ business models, as well as of the macroeconomic growth model. And this is where we get back to the scissors issue and the causality dilemma. A comprehensive analysis of companies’ financial statements shows that in the period from 2013 the Serbian corporate sector knew how to use the benefits of stable macroeconomic conditions, and consequently contribute to them. Predictable inflation, a relatively stable dinar exchange rate and financial stability are reflected directly in financial statements through lower financial costs, and indirectly through the growth of business activity, higher efficiency of the use of available resources and stronger competitiveness. The positive synergy of macroeconomic and business decisions created buffers that were used in response to numerous external challenges, so that stable growth prospects have been preserved. This is confirmed by the results achieved at the level of both the national economy and companies, which were and remain geared towards the same goal – growing business and raising the citizens’ living standards on sustainable grounds.

The conclusion is that in an adequate macroeconomic environment companies can use their specificities, which partly stem from their activity, size, owner residency and market orientation, as a comparative advantage.

It is only reasonable to expect that as our economy’s growth prospects strengthen in the coming period, so will our macroeconomic stability, as well as the activity and efficiency of companies, spilling over, through higher employment and wages, to the sustainable further rise in the population’s living standards.

References
Appendix

Source of data and the methodology of the analysis

Data
As the aim of this paper is to examine the situation and changes in the financial position and performance of the Serbian corporate sector, the data used are those from financial statements collected by the Serbian Business Registers Agency because they are deemed the most appropriate in terms of coverage and consistency.

The analysis includes companies’ financial statements starting from 2013 and ending with 2022. Since the form of financial reporting changed in the period under review, the financial statement items were mapped so as to ensure their comparability in that period. While data are aggregated by various criteria, the link with original data by company has been maintained.

Coverage
At the annual level, almost one hundred thousand business entities that submitted data to the SBRA are covered, while the analysis includes all financial statements submitted by non-financial sector entities. However, there is a difference in relation to the statistical coverage within macroeconomic aggregates, especially, for instance, in case of agriculture.

Data classification and aggregation
For the purposes of the analysis, all entities are grouped according to several target classification criteria that are applied to the balance or flows in the year for which the financial statements were submitted, namely: 1) registered activity, 2) size of the company, 3) residency of the owner and 4) export orientation.

Companies are classified in the following activity groups:
1. Agriculture, forestry and fishery;
2. Mining, coal and petroleum products;
3. Manufacture of food, beverages and tobacco products;
4. Light industry – manufacture of textile, wearing apparel, leather and related products, wood and products of wood, including furniture, as well as paper and paper products;
5. Manufacture of chemicals and chemical products, pharmaceutical preparations, rubber and plastic products;
6. Manufacture of base metals and metallic products;
7. Manufacture of computers, electronic and optical products, as well as electrical equipment;
8. Manufacture and installation of machinery and equipment;
9. Manufacture of motor vehicles and other transport equipment;
Other branches of manufacturing (printing and service activities related to printing, manufacture of non-metallic mineral products, other manufacturing activities, water supply and sewerage, waste collection, treatment and disposal);  
Electricity, gas, steam and air conditioning supply;  
Construction;  
Retail and wholesale trade in motor vehicles and motorcycles, and their repairs;  
Wholesale trade;  
Retail trade;  
Transport and warehousing;  
Food and accommodation services; and  
Other unmentioned economic activities.

The classification according to activity (sector) was carried out starting from the code of core activity, as cited in the financial statement. Considering that core activity is subject to change, in different years the same company can be found in different activities. That is why the definition of the activity was carried out in such a way that, with an acceptable number of observed groups, the production and market specificities of the companies included in them were captured.

According to size, business entities were classified into standard groups, namely: micro, small, medium-sized and large enterprises, in line with the value indicators envisaged by the Accounting Law (Article 6).

According to the residency of the owner of capital, business entities were classified in the following groups, applying appropriate criteria: 1) companies in majority resident ownership (exclusively domestic capital, domestic capital over 90% and domestic capital over 50%) and 2) companies in majority non-resident ownership (exclusively foreign capital, foreign capital over 90% and foreign capital over 50%).

According to export orientation, business entities were classified in the following groups: 1) companies that mainly export (exclusively export, export over 75% and export over 50%) and 2) companies that mainly sell their products in the domestic market (domestic market exclusively, domestic market over 75% and domestic market over 50%). Due to differences in the reporting requirements for business entities, it is not possible to make a full classification according to this criterion. However, the scope of coverage is still high – unclassified companies participated in the business income of the corporate sector with 10.2% in 2013 and 8.8% in 2022. The classification of sales in the domestic and international markets was made on the basis of the data contained in the companies’ income statements. Since the necessary data exist only if financial reporting is based on the principle of “full coverage”, a significant number of companies are unclassified (82.8% in 2022), but their share in total income (9.1%), business assets (16.9%) and employment (17.5%) is markedly lower.

Considering that in the unclassified group there are mostly micro and small enterprises, the fact that their coverage in this case is relatively small (2.8% of micro and 16.6% of small enterprises) was taken into account when drawing conclusions about their export propensity.

Financial aggregates at the level of the corporate sector and groups that were formed based on the target classification criteria were obtained according to the gross principle, that is, by adding up the corresponding items from the financial statements of individual business entities.

Indicators
The analysis includes data from the balance sheet, income statement, cash flow statement and statistical report. An analysis of the balance sheet is necessary for understanding the scope and structure of assets that the company has, as well as the sources of such assets. The income statement is a necessary source of data for understanding the dynamics and tendencies in business, the sensitivity of business to internal and external influences, as well as for assessing the profit prospects. Cash flows show the monetary impact of the activities that the company carries out during the business year, and thus the ability to generate excess cash from business activities, as well as its use. The cash flow statement provides insight into the way the company finances investments and its relationship with owners through the payment of dividends and the raising of additional capital. All the above statements are necessary to fully understand changes in the company’s asset position, financial structure of sources, turnover of funds, and to assess the impact of changes in the market position on the company’s profitability, liquidity and solvency.
Jorgovanka Tabaković

graduated from the Faculty of Economics in Pristina, on 14 May 1981 as the student of the generation. She was elected Member of Parliament in six parliamentary convocations. From March 1998 until October 2000, she served as Minister of Economic and Ownership Transformation in the Serbian Government. Her book “Monetary Policy – No Final Victories” was published in 2018, “My Answers – a Contribution to the History of Banking in Serbia in 21st Century” in 2020, and another one “The Turning Point – Balance is the Key to Success” in 2021. She has served as Governor of the National Bank of Serbia since August 2012. In June 2018 she was re-appointed for another six-year term of office, starting from August 2018. The reputable Banker monthly declared Governor Jorgovanka Tabaković the best governor in the world and the best European governor for 2020. She is a widow and mother of three children: Ivana, Milena and Nikola.