

## ANALYSIS OF FINANCIAL INDICATORS OF SMALL AND MEDIUM – SIZED ENTERPRISES IN THE SLOVAK REPUBLIC UNDER THE CONDITIONS OF EXTERNAL DISRUPTIONS

KATARÍNA BELANOVÁ<sup>1</sup>

**Abstract:** *At the beginning of 2020, the world was paralyzed by the COVID - 19 pandemic. In 2021, we were witnesses of a rise in macroeconomic variables, which was interrupted by disrupted supplier – customer relations, war in Ukraine and high inflation. As the article reveals, external disturbances were reflected in the values of financial indicators of small and medium – sized enterprises in the SR. In this regard, we used added value as one of the most important quantitative indicators through which the efficiency of the small and medium-sized enterprises is evaluated. According to our findings, COVID – 19 pandemic caused its decrease in 2020 followed by its increase in 2021. Regarding high inflation, small and medium - sized enterprises managed to get over high inflation rate in 2022 by transferring rising costs into sales.*

**Keywords:** *coronavirus crisis, business, financial situation, inflation*

**JEL Classification:** E31, G32

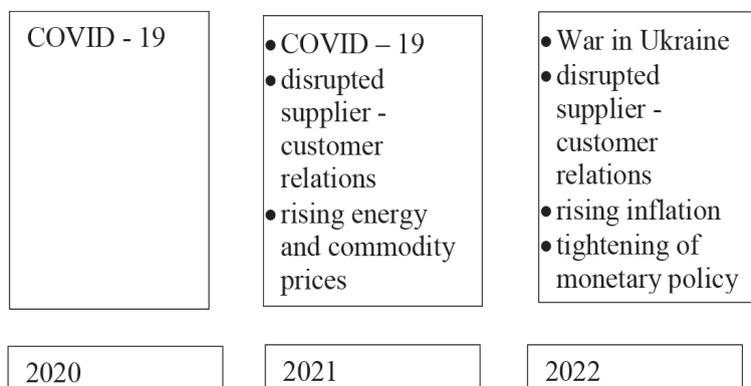
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<sup>1</sup> Assoc. prof. Ing. Katarína Belanová, PhD., University of Economics in Bratislava, Slovakia, e-mail: [katarina.belanova@euba.sk](mailto:katarina.belanova@euba.sk),  <https://orcid.org/0000-0003-2634-9238>

## 1 Introduction

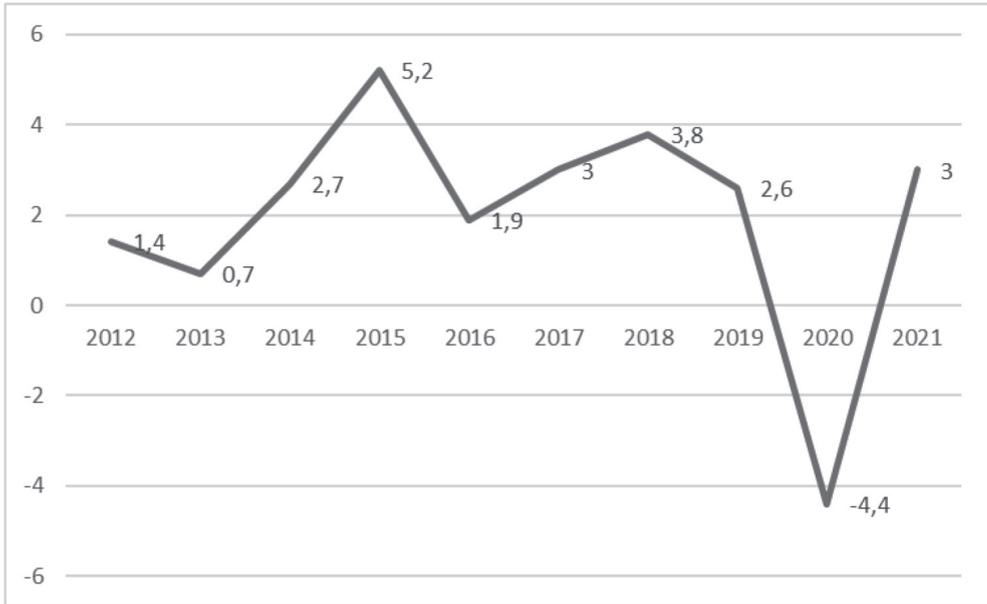
For more than two years, the financial situation of businesses has mainly been influenced by disruptions from the external environment. After coronavirus crisis we have been facing since March 2020, there are new challenges with a significant impact on the global economic environment. This mainly concerns disrupted supplier-customer relations and an increased level of inflation, including rapid price growth of energy and other commodities, which is also linked to the tightening of monetary policy. The negative effects of these factors are accentuated by the war in Ukraine, which is a source of considerable uncertainty regarding the future development (Figure 1).

**Figure 1:** External factors influencing the financial situation of businesses



**Source:** Own elaboration

Considering these factors, we can observe the deterioration of the development of the Slovak economy. As shown in Figure 2, after years of continuous growth with interruption in 2016 and slowdown in 2019, the performance of the Slovak economy decreased.

**Figure 2:** Real GDP growth (annual, in %) in the SR

**Source:** Author according to the Statistical Office of the SR

Although a slowdown in economic growth was already noted in 2019, this was more related to standard cyclical and structural changes - and had nothing to do with the coming depression (and the pandemic that caused it).

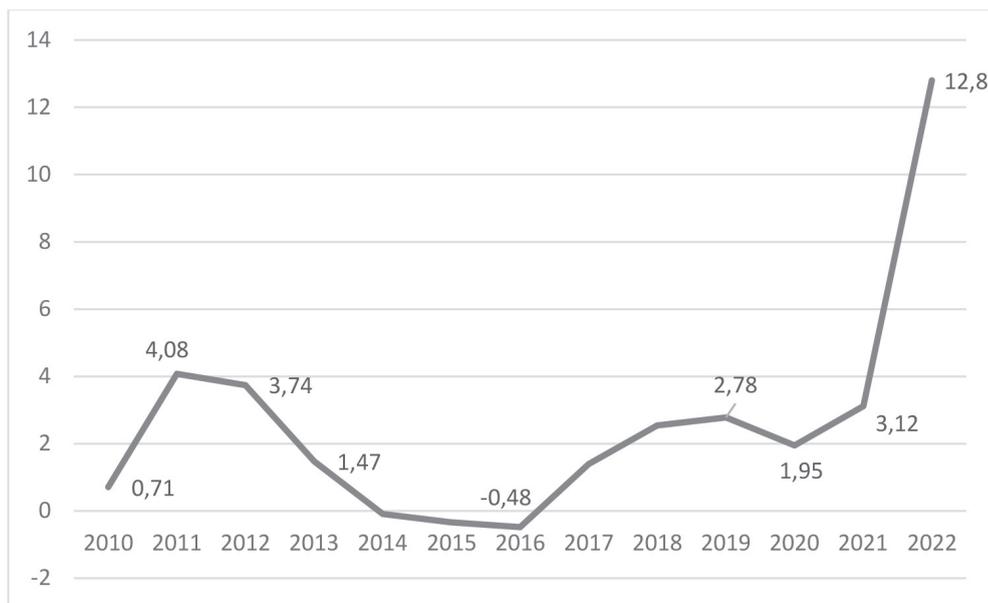
According to Business Environment Monitoring (2021), the aggregated financial results and the values of financial ratio indicators of small and medium – sized enterprises (SMEs) improved in most cases before 2020. SMEs recorded a year-on-year increase in the volume of sales, net profit, property, equity and added value.

We focus primarily on small and medium – sized enterprises in our analysis. According to SBA (2022), SMEs accounted for almost 100% of the total number of businesses in the SR. Almost two-thirds of employment in the corporate economy and more than half to the total added value is represented by them. The increased inflation had a significant impact on the economic situation of SMEs in 2022 (NBS, 2022).

Inflation influences businesses in many ways, mostly by changes in the prices of inputs and outputs. Moreover, these changes are mostly disproportionate (Rabatinová, 2022). The higher the inflation rate, the more intense and faster the changes.

As Figure 3 documents, inflation has reached low numbers since 2013, max. 3%. Between 2014 and 2016, the SR experienced deflation. The COVID – 19 pandemic caused even the decrease in inflation. However, from January 2021, inflation has begun to grow.

**Figure 3:** Development of average annual inflation (in %) in the SR



**Source:** Author according to the Statistical Office of the SR

Inflation has increased almost everywhere. EU countries together with other regions and countries started the year 2022 with high inflation. At the end of 2022, inflation did not match the target of the European Central Bank (ECB) which is below 2%.

## 2 Literature review

The impact of inflation on businesses attracted attention of the authors (e.g. Beck et al., 2006; Susanty et al., 2022 and others). Literature brings similar explanations of high inflationary pressures. As Elbahnasawy and Ellis (2022) argue, increasing demand for natural resources is one of the main reasons. Similarly, Krugman (2022) shows that a surge in oil and food prices increases an inflation rate. Josephs (2022) or ECB (2022) respectively also mark higher

prices of commodities and energies as the main reasons of high inflation. Prohorovs (2022) documents that inflation in 2021 and 2022 increased mainly due to an increase in demand following by an increase in energy prices. Shocks in the price and supply of energy and other commodities and basic goods represent the main factors influencing the persistence of high inflation, or even its increase. According to him, the inflation can persist high for many years with significant influence on countries and businesses.

Regarding this, the expectations on the development of inflation rate are very important. According to the National Bank of Slovakia, the annual average inflation for 2022 was of around 12%. Average inflation should reach 10% next year. In 2024, average inflation should be somewhere around 9% (Forbes, 2022). The challenge central banks are facing nowadays is how to decrease the inflation without reducing economic activity (Canuto, 2022).

### 3 Methodology

Our aim is to survey the impact of external disruptions on financial indicators of small and medium – sized enterprises after 2020.

Following the aim, we formulated three hypotheses:

1. We expect that the unfavorable economic conditions in 2020 in Slovakia influenced the values of the surveyed economic results of SMEs.
2. We expect that, due to the revival of economic activity, the economic indicators of SMEs have improved in 2021.
3. We expect that SMEs managed to cope with the increased inflation in 2022.

We formulated the hypotheses according to the development of macroeconomic indicators, namely the GDP growth rate in % after 2020 and the inflation rate.

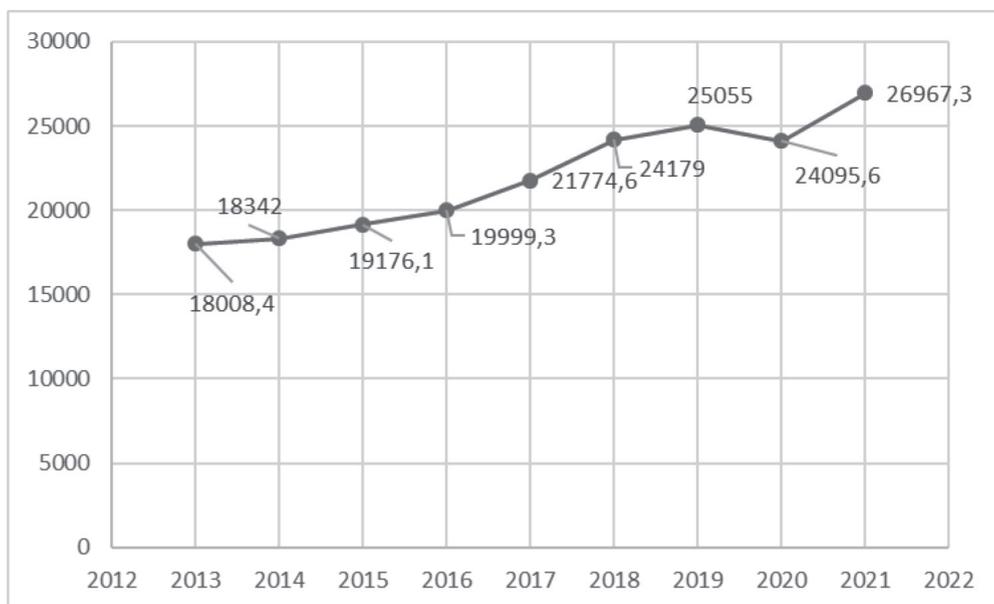
We used available secondary data to fulfill the aim. Added value is one of the most important quantitative indicators through which the efficiency of the SMEs is evaluated.

By comparing changes in prices in the production sphere with changes in sales, we chose some branches of the national economy of the SR to find out the effect of inflation on inputs and outputs.

## 4 Results

As Figure 4 shows, in 2020 there was a suspension of the positive development of the added value of SMEs, which lasted from 2014. The added value of SMEs - legal persons (LP) declined by 3.8% compared to previous year. Yet, the decrease was more than half lower than in 2009 (by 9.8%). The negative consequences of the COVID - 19 were reflected in the results of all size categories of SMEs. Only large enterprises managed to maintain the growth of added value this year as well. Small businesses recorded a significant slump in the creation of added value. Industry remains the most important sector in creation of added value of SMEs. In 2020, industry represented 25% of the total added value of SMEs – LP, trade 22% and business services 21%.

**Figure 4:** Development of added value (in eur million)

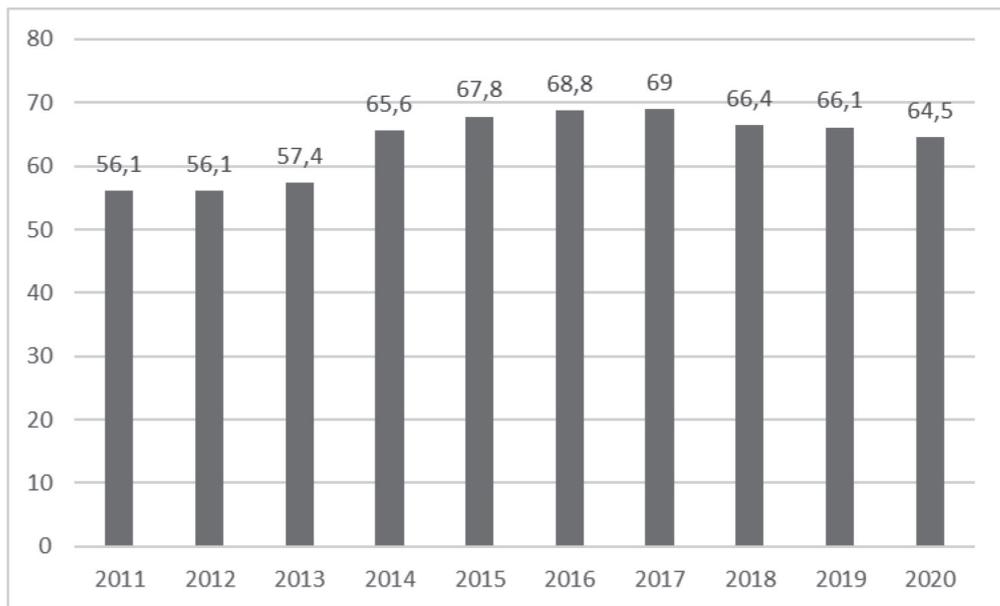


**Source:** Author according to the Statistical Office of the SR

Compared with the previous year, there was a decrease in other economic indicators too. The gross production of SMEs - LP decreased by 4.8%. The investment activity of SMEs also decreased. The creation of gross fixed capital of SMEs was lower by 13.6%. Profit before taxation of SMEs - LP decreased by 11.8%.

It is also possible to assess the profitability of small and medium-sized entrepreneurs through the indicator of the share of SMEs with a positive economic result, which is presented in Figure 5. In Slovakia, almost two-thirds (64.5%) of small and medium-sized enterprises achieve a positive economic result (including a zero economic result). In a year-on-year comparison, the share of the listed entities decreased, mainly due to the negative effects of the corona crisis.

**Figure 5:** Share of SMEs with a positive economic result (in %)



**Source:** Author according to the Statistical Office of the SR

In 2021, due to the moderate recovery of economic activity, the added value of SMEs – LP increased by 11.9% in current prices in all sectors of the economy. The added value of SMEs increased most significantly in trade, other services, transport, information activities and industry sectors. Added value also grew in accommodation and catering, but the achieved growth of 5.7% could not compensate for the drop of 15.4% from 2020. All size categories of SMEs recorded a positive development. The most significant growth in the creation of added value was achieved by small enterprises.

In 2021, the share of SMEs - LP reached 54.9% in the created added value in the non-financial corporate sector. In a year-on-year comparison, the achieved share of SMEs increased. At the same time, it reached the same value as in 2019 (i.e. in the pre-pandemics period).

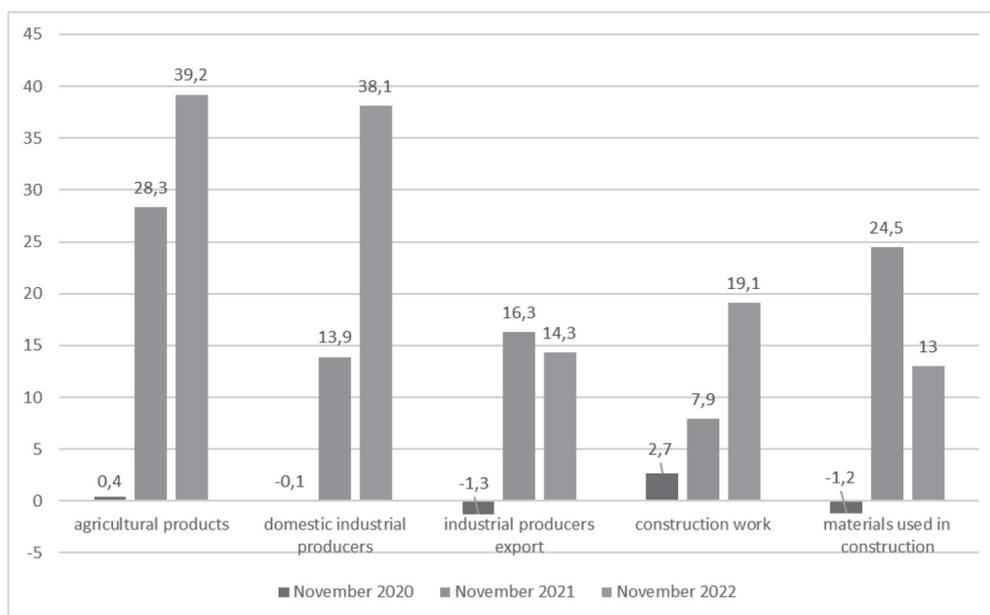
Other economic indicators of SMEs also recorded a positive development. The gross production of SMEs increased by 12.3%. The creation of gross fixed capital of SMEs, which shows the state of investment activity, increased by 7.2%. An increase of 34.8% was recorded in the creation of the gross profit of SMEs, which increased after the previous two-year decline.

Increased inflation had a significant impact on the economic situation of SMEs in 2022.

Inflation influences the businesses in many ways, mostly by changes in the prices of inputs and outputs. Moreover, these changes are generally uneven. The higher the inflation rate, the more intense and faster the changes.

As Figure 6 shows, there was a sharp rise in the prices of several commodities and goods during the whole year 2022 or in energy commodities.

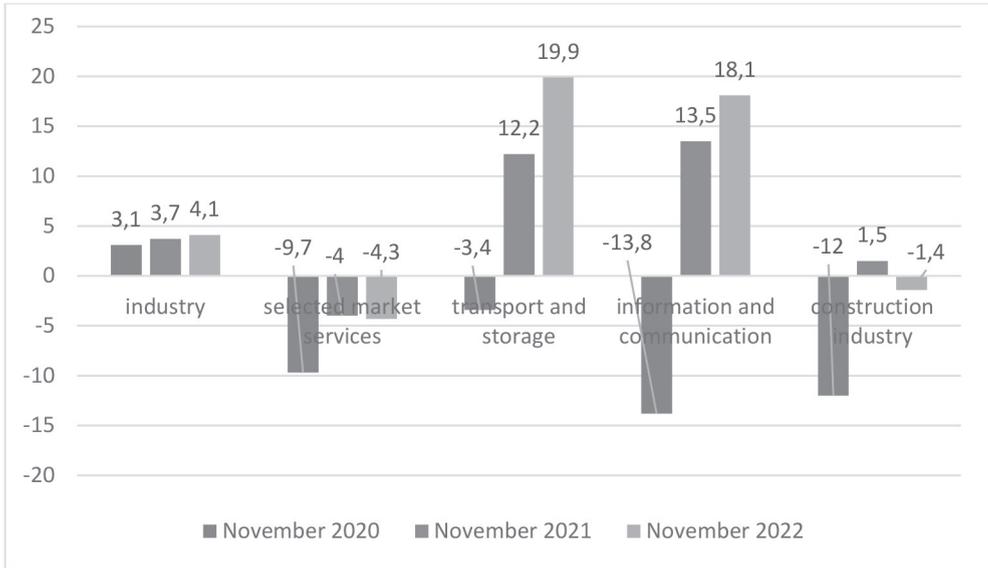
**Figure 6:** Price change in the production sector (year – on – year in %)



**Source:** Author according to the Statistical Office of the SR

According to Figure 7, in chosen sectors sales increased in November (compared to previous year). It confirms that by transferring rising costs into sales businesses were able to get over high inflation.

**Figure 7:** Change in sales of selected branches of the SR economy (year-on-year in %)



**Source:** Author according to the Statistical Office of the SR

However, this ability differs among individual SMEs and there are also other factors influencing their efficiency to transfer rising costs into sales (branch, market competition, etc.). We suggest that inflation will influence especially long-term or luxury goods, or goods with energy-intensive production. On the other hand, the impact does not have to be so high regarding essential goods. It is recommended that SMEs should find additional reserves for operations.

## 5 Conclusions

Positive benefits of business for society are primarily based on the creation of optimal conditions for its realization, as well as on the implementation of measures from regularly implemented measurements and analyzes of the needs and satisfaction of business entities. It is very important to monitor the character of the business surroundings more intensively in times of uncertainty and changes brought to the market by the coronavirus pandemic. Creating suitable conditions for business is necessary at the current time, because the willingness to do business can be reduced in times of uncertainty. It is the task of the state, based on research, to systematically understand the pulse of the

business environment, to create mechanisms for its continuous improvement, as well as to actively and effectively communicate them. Given the current situation on the market, it is also desirable to identify barriers that prevent or complicate the establishment of a business, or its development, promptly remove them and continue to simplify the entire mechanism of implementing business activities.

As shown, the development of the overall economic environment has an indisputable influence on the development of economic situation of businesses after 2020.

In 2020, the COVID-19 pandemics broke out, as a result of which SMEs had to cope with anti-pandemic measures. The business sector was also affected by the consequences of the ongoing pandemic in 2021, but unlike in 2020, SMEs were already better able to deal with its negative impacts. COVID – 19 pandemics negatively influenced the creation of added value in 2020. In 2021, thanks to improvement of external conditions, creation of added value, as well as of other monitored economic indicators, increased.

By comparing changes in prices in the production sphere with changes in sales of chosen branches, we found out that SMEs were able to cope with the influence of increased inflation. We suggest to monitor the input prices on world markets. As they are significant for the businesses, it is expected that they will be transferred to prices.

Finally, it is possible to generate a quantitative econometric model for the quantification of increased inflation on economic results of companies.

## **Acknowledgments**

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