

How Increased Inflation Affects Businesses

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Abstract – Inflation affects the business in many ways and its impact is reflected in the overall operation and life of the business. It has the most significant effect on changes in the prices of inputs and outputs, while these changes are generally uneven.

The aim of the article is to evaluate the past and to simulate the possible future development of the financial situation of businesses in an environment of increased inflation and uncertainty in the SR.

First, through the available statistical data, we point out that, on average, businesses were able to transfer rising costs into sales. We then carry out a simulation of future development based on two scenarios. We mainly simulate two types of shocks – cost growth and demand decline. According to the findings, a sharp and uneven increase in prices can negatively affect some businesses and disrupt the structure of the business sector. As we also document, the impact of inflation on businesses is heterogeneous.

Keywords – inflation, businesses, financial stability.

1. Introduction

One of the most observed macroeconomic indicators nowadays is inflation. Due to its characteristics, such as the rise in prices for goods and services, it affects both companies and households. If the growth of their incomes, copying the rate of inflation, is not maintained, its negative effects intensify.

As documented by Figure 1, inflation has been low since 2013, max. 3%. Between 2014 and 2016, prices even fell. The coronavirus crisis brought the lowest inflation in the last 3 years.

Since January 2021, however, inflation has been growing year-on-year without a break and with a value of 15.4% for November and the same for December 2022, it has reached the highest values since the beginning of the millennium. Long-term rising food prices and housing costs, including electricity, gas and other fuels, have the most significant impact on overall inflation. These are the two most important items in household expenses, together they make up almost half of the expenses.

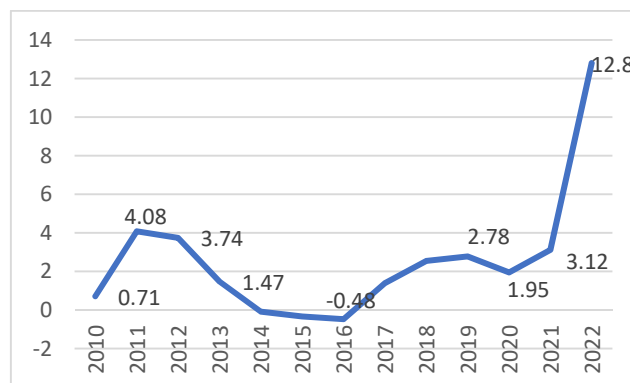


Figure 1 Development of average annual inflation (in %) in the SR

Source: Own elaboration according to the Statistical Office of the SR

Note: According to the methodology used in the SR

Inflationary pressures are on the rise practically all over the world. It was not only the eurozone but also most other regions and countries that entered the year 2022 with increased inflation.

Eurozone annual inflation was down to 9.2 % year-on-year in December 2022 from 10.1 % in November, which represented the first slight contraction in prices since June 2021. Though the data are undoubtedly positive, inflation in Europe remains much higher than the European Central Bank (ECB)'s target of keeping the eurozone area below 2 %.

Explanations of high inflationary pressures, which can be found in literature, are almost the same.

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As [1] argue, one of the main reasons for the increase in inflation is the increasing demand for natural resources. Similarly, [2] states that a supply shock will reduce growth and further increase inflation, at a time when inflation expectations are already unsustainable. [3], resp. [4] also determine higher commodity prices, resp. higher energy prices as the main reasons of high inflation. [5] notes that the increase in inflation in 2021 and 2022 has mainly been due to an increase in demand and, accordingly, an increase in energy prices. The main factors that can influence the persistence of high inflation, or even its increase, include shocks in the price and supply of energy and other commodities and basic goods. The inflation rate in the EU and a number of other countries may remain high for several years or more and be a significant threat both to the economies of the countries and to businesses.

Moreover, for policymakers, entrepreneurs, and companies, it is important when planning to know not only the current inflation rate, but also what it might be in the near future. National Bank of Slovakia (NBS) forecasts the annual average inflation for 2022 of around 12%. Average inflation should reach 10% next year. In 2024, average inflation should be somewhere around 9% [6].

According to [7] the structural factors that have kept inflation low in recent decades may weaken as globalization retreats, and the inflationary paradigm may change accordingly.

The war in Ukraine has exacerbated the dilemma faced by central banks on both sides of the Atlantic, namely, how to tighten financial conditions quickly and intensively in an environment of inflation that can no longer be seen as simply temporary and reversible, and at the same time not reduce the pace of economic activity and not provoke financial turmoil [8].

Corporate debt has been growing worldwide for more than a decade and high levels of corporate debt can make restrictive monetary policy less effective in curbing inflation [9].

In our previous paper [10] we point out that the increase in interest rates is leading to an increase in the cost of servicing the debt of both companies and countries.

Despite the topicality and importance of this issue, according to our knowledge, there have not yet been conducted many surveys on the impact of inflation on the financial stability of companies in the Slovak Republic. In addition, there are no current studies examining the impact of high inflation on the financial situation of businesses.

The aim of the article is to evaluate the past and to simulate the possible future development of the financial situation of businesses in an environment of increased inflation and uncertainty in the economy.

2. Research Methodology

In the first part of the analysis of the impact of inflation on the business sector, we used secondary data, specifically the data of the Statistical Office of the SR. We examine how companies managed to cope with the effects of inflation by comparing changes in production prices and sales in selected branches of the national economy of the Slovak Republic.

Next, we consider two scenarios of macroeconomic development, which are presented in Table 1. In the worst -case scenario, compared to the basic scenario, a more significant slump in the economy in 2023 and a more significant increase in cost prices are expected, which will result in a situation where the growth of sales will significantly lag behind the growth of costs.

In the first step of the simulation, the increase in costs is simulated, taking into account their different structure across businesses, the different development of unit prices in individual cost categories, as well as the different ability of businesses to transfer rising costs into increased sales. In the base case scenario, we assume that, on average, businesses will be able to offset the cost increase through revenue growth, even with a more significant cost increase, based on the development observed at the beginning of the price increase period (during the first two quarters of 2022).

On the other hand, in the worst- case scenario, a moderate increase in sales compared to cost growth is expected on average (by approximately 10%), so some businesses will not be able to fully translate higher input prices into output prices against the background of weakening demand. This is based on the development observed in normal times (in 2019). Despite the assumption of a general increase in costs, the impact on individual types of businesses will be different, so we simulate it using micro data.

In the second step, a decrease in demand due to rising output prices is simulated. At the same time, when sales decrease, we also reduce variable costs, in an amount corresponding to 80% of the decrease in sales, which is based on empirical observations during the corona crisis (NBS, May 2022). It is assumed that the total sales of the business sector should be in line with the overall macroeconomic scenario.

Table 1 Assumptions for the simulation of businesses at risk

	Base case				Worst case			
	2022	2023	2024	totally	2022	2023	2024	totally
Real GDP growth	3%	-1%	3%	1%	1%	-5%	2%	1%
Nominal GDP growth	8%	11%	6%	33%	7%	12%	7%	34%
Growth of sales	13%	19%	11%	50%	12%	19%	12%	52%
Growth of total costs	21%	15%	5%	46%	31%	18%	8%	67%
Costs per unit								
- energies	170%	9%	-10%	175%	250%	50%	-10%	400%
- inputs and goods	20%	14%	6%	45%	30%	20%	10%	68%
- services	8%	10%	2%	20%	10%	15%	5%	35%
- employees	7%	12%	8%	30%	8%	12%	10%	40%

Source: Own elaboration according to the data of National Bank of Slovakia, Statistical Office of the SR

3. Results

Comparing the increase in input prices, we can state that businesses face a faster increase in input prices than households. The prices of several commodities and goods grew dynamically during the entire year 2022, while this price growth spills over into an increasingly wide range of goods. The most significant year-on-year price growth is present in energy commodities.

As Figure 2 shows, the prices of industrial producers for the domestic market were 38.1% higher year-on-year in November 2022. This was a significant slowdown in the dynamics of producer price growth, as the previous three months the producer price growth exceeded the level of 50%. The prices of materials consumed in the construction industry continued to reduce the growth rate and reached below 15%. Agricultural products were 39% more expensive year-on-year.

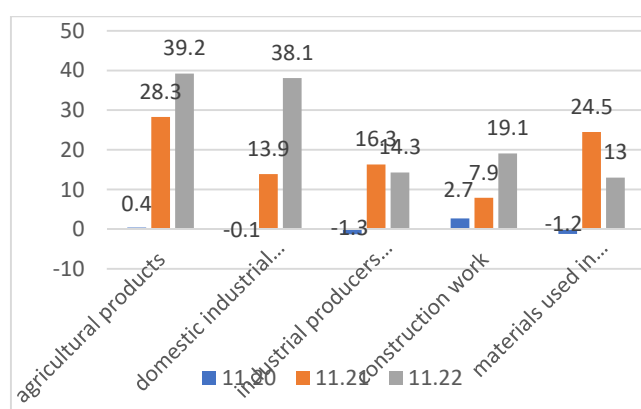


Figure 2 Price change in the production sector (year-on-year in %)

Source: Own elaboration according to the data of the Statistical Office of the SR

Such sharp and at the same time uneven price growth can significantly disrupt the structure of the business sector and the economy as a whole.

The prices of some, especially energy inputs are extremely volatile. This greatly complicates financial management and planning of businesses. In addition, the increase in prices affects an increasingly wide range of goods and services, while the risk of secondary inflationary effects increases. Such an environment creates pressure on businesses to take drastic steps in the area of their pricing policy, which, however, also shifts the difficulties to other customers. Moreover, in this situation, customers more easily accept increases in output prices than in the previous period, when prices were practically stable for a long time. This increases inflationary pressures.

Figure 3 documents that businesses were on average able to transfer rising costs into sales.

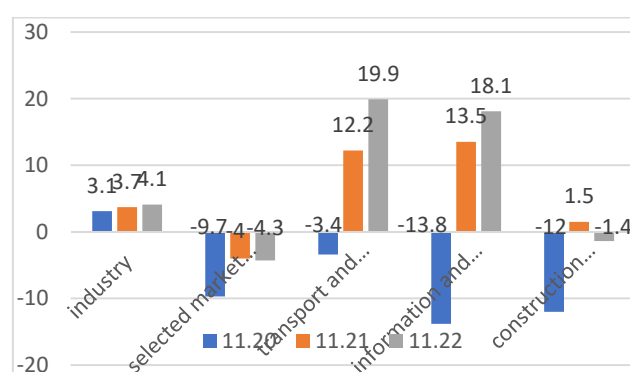


Figure 3 Change in sales of selected branches of the SR economy (year-on-year in %)

Source: Own elaboration according to the data of the Statistical Office of the SR

November sales grew year-on-year in three of the five monitored sectors of the economy. Sales of industry, the most important sector in the structure of the economy, rose for the sixth month in a row. In November 2022, the industry recorded a year-on-year increase in sales of 4.1%.

Transport and storage, as well as information and communication, continued the double-digit growth from the previous months. Selected market services, as well as the construction industry, continued their downward trend.

The ability of companies to convert rising input prices into final output prices is therefore diverse and depends on many factors, e.g. from the impact of the expected cooling of the economy on the demand for a specific type of product, from a specific industry, market position, financial health of the company, intensity of competition, etc. To a greater extent, long-term or luxury goods, or goods with energy-intensive production, will be affected. On the contrary, essential goods should experience a smaller decrease in demand. Many businesses are therefore exposed to the need to look for additional reserves in the area of operational efficiency.

Furthermore, we simulated the possible future development of the financial situation of businesses in an environment of increased inflation and uncertainty in the economy.

Although the most significant price shock is expected for energy, its impact is mitigated by the fact that energy costs were on average only a small part of total costs before the increase began. The average share of energy costs in total costs was 4% in 2020. In addition, the fact that several companies (especially larger ones) have energy prices fixed for a certain period by default is also taken into account, and therefore their increase will affect them later. The effort of the enterprises most affected by the unfavorable development on the cost side to increase their operational efficiency through additional cost savings can also be a mitigating factor.

However, trying to cut costs quickly can worsen the perspective of long-term sustainability and business development.

Despite the fact that the above scenarios will only partially affect the average financial situation of businesses, quite a few companies will face the risk of serious financial problems. The median profit margin could even increase in the base scenario, and even in the worst case scenario it could remain in the positive zone despite the decline. However, the development in individual enterprises will be quite diverse, while a relatively large part of enterprises will be exposed to a significant deterioration of the financial situation. Figure 4 reveals the share of loans at risk in the total volume of loans to enterprises by size categories of enterprises (in %). There is a base case on the left- hand side and the worst case on the right- hand side.

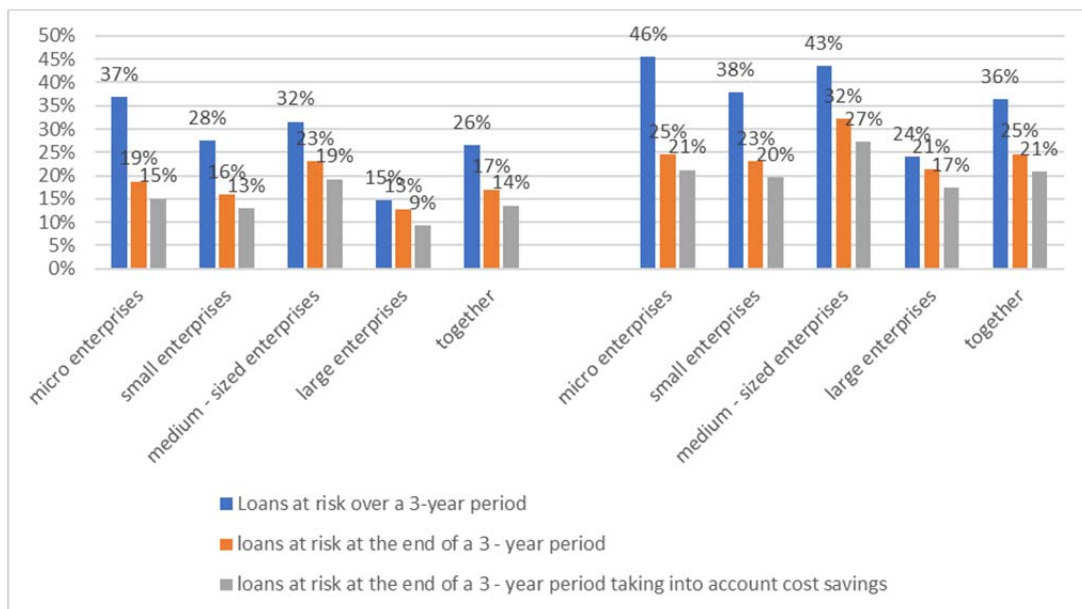


Figure 4 Share of loans to businesses at risk

Source: Own elaboration according to the data of the Statistical Office of the SR

At the same time, the simulation shows that in addition to a significant share of companies that are at risk of financial problems, the financial condition of other companies can, on the contrary, improve significantly. An inflationary environment will make it easier for many businesses to increase output prices, which can have a positive impact on their profitability.

On the other hand, the deterioration of the situation in the second part of the enterprises can also be quite significant, which will significantly increase the heterogeneity between the level of profit margins in the business sector.

The heterogeneity of profit margins according to size of the businesses is depicted in Figure 5.

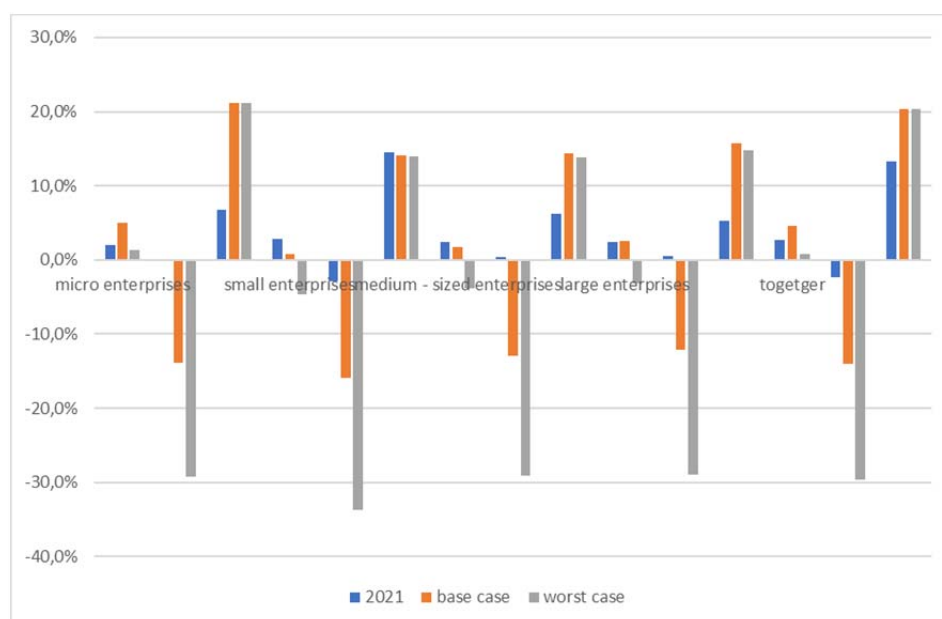


Figure 5. The impact of the basic and worst case scenario on the profit margins of businesses by size category (in %)
Source: Own elaboration according to the data of the Statistical Office of the SR

This confirms that current developments can result in disruption of the overall structure of the business environment. From a global point of view, the competitiveness of some industries is also deteriorating, e.g. chemical industry, where European companies can face great competition from Asia and America. In addition, there is a risk that problems from the corporate sector may spill over into the labor market, which has so far resisted negative developments. As a result, problems could also be transferred to households and their ability to repay loans. At the same time, acquisition activity on the part of companies in a better financial situation may increase, which could also mitigate to some extent the impact of companies in a worse situation on the economy, the labor market, and the banking sector.

4. Conclusion

Inflation is one of the most observed macroeconomic indicators at the moment. With its characteristic features, namely the growth of prices of goods and services, it affects businesses and households that buy these goods and services. Their negative effects intensify if their incomes do not keep pace with inflation.

The subject of the article is to examine the impact of inflation on the financial situation of companies in the Slovak Republic.

Firstly, using the secondary data we found out that businesses were on average able to transfer rising costs into sales. Next, we carried out a simulation of future development based on two scenarios.

According to our findings, the negative impact on part of the enterprises and disruption of the structure of the business sector are the main consequences of a sharp and uneven increase in prices.

The secondary inflationary pressures on an ever-increasing range of goods and services, which result from the impact of rising energy prices and affect a large part of costs, are more worrying than energy prices themselves. However, the impact of inflation on businesses is heterogeneous. The decisive factor is the ability to pass on higher costs to customers, which is very diverse across business sectors.

Even in times of economic growth, it is common for some companies to do better and some worse. Now, however, these differences will significantly deepen, and the deterioration of the situation of some companies may be serious. Many companies may be forced to take drastic action, even at the cost of an adverse impact on their own development. Acquisition activity may also increase, the competitiveness of some industries may deteriorate, and pressure on the labor market, which has so far resisted deterioration, may increase.

Therefore, we recommend monitoring the prices of raw materials and inputs on world markets which are important for the company. Their development will, with a delay, also be transferred to prices in the Slovak Republic. Business management should be sufficiently self-sufficient to be able to reflect assumptions about the future development of macroeconomic disturbances in its decisions. Subsequently, it is necessary to assess them in a broader context, i.e. to assume adjustments to the legal and tax system by the state, etc.

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