

THE IMPACT OF CORONA CRISIS AND GOVERNMENT RESTRICTION MEASURES ON THE FINANCIAL HEALTH OF ENTITIES IN THE SLOVAK REPUBLIC

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Abstract: *The aim of the work is a comparative analysis of the negative effects of the COVID-19 pandemic caused by the lockdown of the economy and the government's restrictive measures on the financial health of economic entities in the Slovak Republic (legal entities - entrepreneurs, natural person - entrepreneurs and employees). In our work, we focused on the impact of the COVID 19 pandemic on the macroeconomic and microeconomic environment, including the characteristics and evaluation of the received government "aid packages". The result is an evaluation and comparative analysis of the financial health of selected economic entities in 2020 with the financial health of these entities in the accounting period before the corona crisis.*

Keywords: *COVID-19 pandemic, lockdown, financial health, corona crisis, government aid packages*

JEL Classification: M49, E21, E31

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1 Introduction

At the end of 2019, the first disturbing information about a new, at that time unknown disease, which originated in the distant Chinese city of Wuhan, began to appear. However, no one expected that the new coronavirus, which appeared far from Slovakia's borders, would cause such a rapid and unexpected global change within just a few weeks of the first officially confirmed cases in China. Changes occurred not only in the development of the global economy, but also in people's behavior.

The priority of individual governments around the world was to bring the outbreak of the pandemic under control as quickly as possible in order to slow down the spread of the COVID-19 disease as much as possible, thereby reducing the number of infected and, above all, hospitalized patients in hospitals. In the fight against the global health crisis, various measures were used, mainly those that led to a reduction in mobility and meeting people with each other. Although the adopted measures proved to be a good tool to combat the emerging COVID-19 pandemic, on the other hand, they largely affected the performance of several business activities. As a result of the adopted anti-epidemiological measures, several entrepreneurs had to close their businesses and operations. These factors subsequently led to the fact that the entrepreneurs in question began to dismiss their employees, and thus created the perfect conditions for the emergence of an economic crisis. The governments of individual countries also began to realize the negative economic effects of the COVID-19 pandemic, and started to pass various aid packages for businesses and individuals affected by the pandemic. The goal of the adopted government support measures was to jump-start the national economies affected by the COVID-19 pandemic.

World trade (Yeyati & Filippini, 2021) experienced a short-term but deep slump. The rapid decline in commodity trade had a negative impact on the economies of countries trading in these commodities. The rapid decline of the commodity market was accompanied by its subsequent rapid recovery, which reflected reduced demand for services that were restricted due to measures against the spread of COVID-19 disease. These were primarily services requiring immediate and intensive contact with the customer. As a result of the adopted quarantine and travel restrictions, the services market collapsed even more, while this market also experienced a subsequent recovery, which was not as fast and failed to reach the pre-crisis level just as the aforementioned commodity market.

The aim of the present paper is a comparative analysis of the negative impacts of the COVID-19 pandemic caused by the lockdown of the economy and the restrictive measures adopted by the government on the financial health of economic entities in the Slovak Republic (legal entities - entrepreneurs, natural persons - entrepreneurs and employees).

2 The COVID-19 pandemic and the macroeconomic environment

In addition to the global health crisis, the COVID-19 pandemic also caused an economic crisis. The resulting economic crisis (often referred to as the "corona crisis") represented a major economic shock not only for individual countries, but also for individual sectors of the economy and entities operating in the economy.

After several years of continuous economic growth, the global economy, as well as the Slovak economy, was hit by an unpredictable large-scale shock. In the case of the Slovak Republic, it was the first negative downturn in the economy in ten years (NBS, 2021b). The resulting economic slump was greater than during the financial crisis in 2008-2009.

2.1 Economic development during the COVID-19 pandemic

The outbreak and uncontrollable spread of the new coronavirus and the related restrictive anti-pandemic measures caused acceleration of the process of the emergence of a deep (worldwide) recession. The emerging COVID-19 pandemic caused the emergence of an economic crisis and a sharp economic collapse within just a few weeks of the first confirmed cases of the new coronavirus, which in the case of the development of the global financial and mortgage crisis of 2008 took approximately more than two years.

Despite various types of state aid, the impact of the COVID-19 pandemic on the development of the world economy was enormous. According to some world and Slovak scientists, the COVID-19 pandemic caused the deepest recession since the end of World War II. A significant decrease in economic growth was recorded by 170 countries of the world, approximately one month after the outbreak of the global pandemic. The resulting global recession led to supply and demand shocks that led to the largest decline in world trade in the modern economy history (Hošoff, 2020).

Private consumption contributed to the most significant economic decline, which was mainly influenced by the measures taken to limit social contacts, which also caused a change in the consumer behavior of buyers, but also a gradual worsening of the situation on the labor market together with a significant increase in uncertainty in the economy (Yeyati and Filippini, 2021).

„The initial primary impact of COVID-19 is on the supply side. Factory closures in China and elsewhere lead to a contraction in macroeconomic supply of goods and services, what mean lower output, higher prices, or what is known as ‘stagflation’. A demand-side response to the contraction (e.g. Central Banks lower interest rates) to increase demand will aggravate the inflation, with only a small impact on output and employment, especially if in the short term the supply curve (which is also a cost curve) is price-insensitive, owing to the inability to find alternate sources of parts and materials.“ (Maital and Barzani, 2020, p. 6)

Even before the crisis caused by the new coronavirus pandemic, the Slovak economy began to lag behind. The main cause of the slowdown of the Slovak economy was low productivity caused by technical² and allocative³ inefficiency, another important factor behind the economy's lagging behind was the low number of workers and the last significant factor was the quality of human capital⁴ (Plán obnovy, 2021).

Despite the factors mentioned above, the outbreak and spread of the COVID-19 pandemic, together with the subsequent lockdown of the economy, had a strong economic impact on the collapse of the Slovak economy. During the first year of the pandemic spread (2020), the Slovak economy recorded a drop in gross domestic product (hereinafter referred to as "GDP") at the level of -5.2%. The historically strong decline of the economy (almost 15%) in the first half of 2020 was the effect of very weak domestic and foreign demand. The deepest slump of the Slovak economy was during the 2nd quarter of 2020. The slump was mainly caused by a drop in industrial production, mainly due to the interruption of production in the automotive industry (FinWeb, 2021).

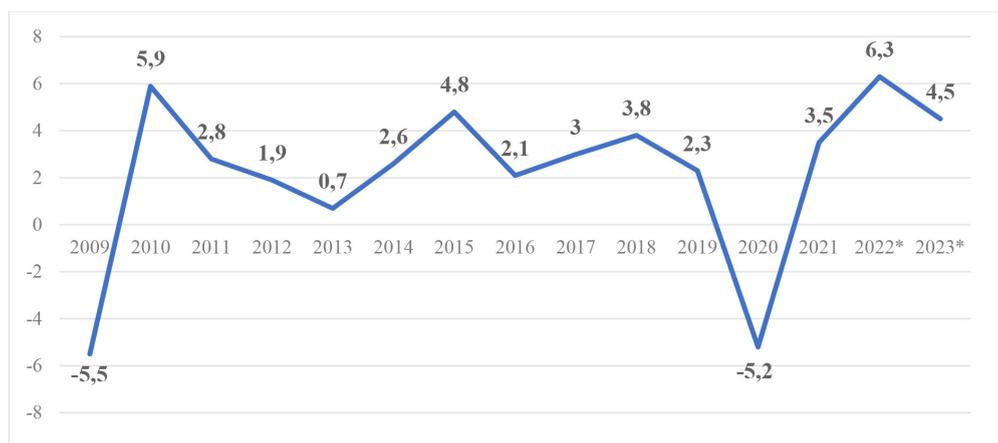
² *Technical inefficiency* - expresses the level of technological backwardness caused by insufficient implementation of own development, research and adoption of ready-made technologies.

³ *Allocative inefficiency* - expresses the inefficient use of capital and human labor, while these are low-productive activities in less competitive companies.

⁴ *The quality of human capital* – expresses the level of all abilities, practical knowledge and acquired skills of people, which subsequently ensure an increase in their productivity.

In the following quarters, the decline was not so deep, although the development was largely influenced by the progress of the pandemic situation (a lower decline was recorded by the economy during the summer months, when several anti-epidemiological measures were relaxed, and on the contrary, we could observe deterioration of the economic situation during the winter months, as a result of the worsening epidemiological situation). Even though 2020 was a period of significant decline in the Slovak economy, in the following 2021 we could see the growth of the Slovak economy despite the ongoing unfavorable epidemiological situation (that growth was caused mainly by the low comparative value of the GDP for 2020, but also by the better preparedness of the economic subjects from the first and second waves of the COVID-19 pandemic). Graph 1 shows the development, or GDP growth rate in Slovakia, including the forecast for the period 2009-2023.

Graph 1: GDP growth rate in Slovakia for the period 2009 – 2023 (including forecast)



Source: Own processing based on data from the Statistical Office of the Slovak Republic.

Note: The graph also contains the expected development (forecast) of GDP in Slovakia for the years 2022 and 2023.

According to NBS analysts, the resulting global material⁵ crisis could reduce GDP growth by 1.1% points, which would slow economic growth to 3.5% in 2021. After the pandemic and the material crisis subside, the Slovak economy should have relatively dynamic growth. Economic growth could reach 6.3% in 2022, then it should slow down to 4.5% in 2023 (NBS, 2021a). The resulting war conflict in Ukraine will probably slow down the expected dynamic growth of GDP not only in the Slovak Republic but also in the whole of Europe.

2.2 The labor market during the COVID-19 pandemic

The economic crisis triggered by the COVID-19 pandemic, like any economic or financial crisis affected the labor market. The labor market experienced the short-lived but fastest rise in unemployment since the global financial crisis in 2009. The number of the unemployed rose after six years of persistent decline. In 2009, during the global financial crisis, the labor market collapsed more, that was due to the fact that the labor market was less resilient, which in turn led to a higher unemployment rate than during the current economic crisis caused by the COVID-19 pandemic. Measures supporting short-time work, sickness benefits and pandemic sick leave benefits also contributed to better stability of the labor market (Plán obnovy, 2021).

On the labor market, during crises, we can observe a decrease in the demand for work, which is made up of the number of employees, or the number of hours worked according to the requirements of companies. „In a report prepared for the January 25-29, 2021, World Economic Forum, the International Labor Organization (ILO) estimated that 93% of the world’s workers at that time were living under some form of workplace restrictions as a result of the global pandemic and that 8.8% of global working hours were lost in 2020 relative to the fourth quarter of 2019, an amount equivalent to 255 million full-time jobs“ (Jackson, 2021, s. 14).

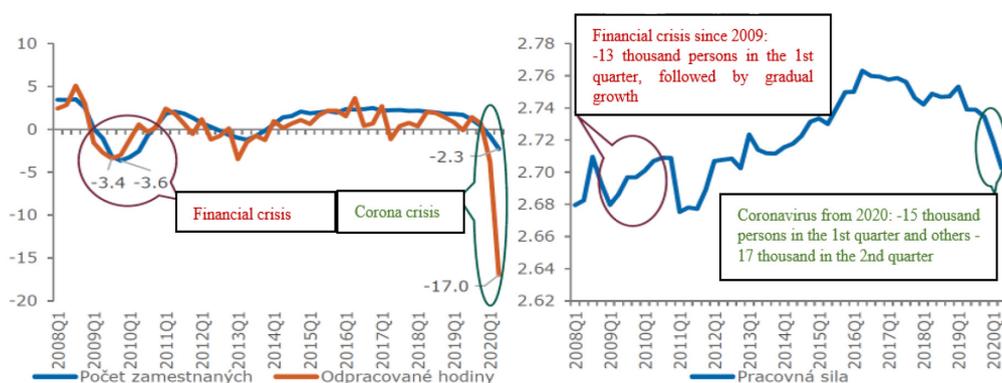
„Total working hours lost in 2020 compared with 2019 were highest in Europe (14.6%) and the Americas (13.7%), where quarantines and lockdowns had been extensive, followed by lowermiddle income economies. The ILO also estimated that global job losses totaled 114 million jobs in 2020 relative to

⁵ Rapid growth in industry may have been dampened by insufficient supply of components, which put upward pressure on input prices. The resulting global material crisis caused the majority of large production factories operating mainly in the automotive industry to reduce the production process to a large extent, or to stop production altogether. The situation could improve in the middle of 2022. The problem of late deliveries and missing materials was mainly late deliveries from Asia, where most of the inputs for the production of electronics and cars are imported (NBS, 2021a).

2019. The share of lost worker hours due to higher rates of unemployment were highest in Europe (6.0%), the Americas (2.7%), including the United States, and Arab States (1.7%). The ILO also estimated that an increase in global economic activity through part of the fourth quarter was equal to an increase of 130 million full-time jobs“ (Jackson, 2021, p. 14).

During the corona crisis, we could observe a much greater decrease in hours worked than in employment. In the second quarter of 2020, the drop in hours worked reached -17%, while the decrease in the number of employees was only at the level of -2.3% (approximately 56 thousand employees). In addition to employers' efforts to retain trained employees, government measures to maintain employment with reduced working hours also contributed to the lower decline in the number of employees. The goal was to mitigate the adverse effects on the purchasing power of households, and at the same time to ensure safety measures against the spread of the COVID-19 disease by limiting the number of employees at workplaces (Analytici ÚMS, 2020a). Graph 2 shows the development of the labor market corresponding to the demand - the number of hours worked and the number of employees (year-on-year changes in %) and the supply of labor force (in millions of persons).

Graph 2: Development in the labor market corresponding the demand - the number of hours worked and the number of employees (year-on-year changes in % - graph on the left) and the supply formed by the labor force (in millions of people - graph on the right).



Source: Analytici ÚMS (2020a)⁶.

⁶ Note 1: The jump reduction in 2011 was due to the lower number of persons with permanent residence in the territory of Slovakia detected during the population census.

Note 2: Graph on the left: The blue line represents the number of employees and the orange line represents hours worked.

Graph on the right: The blue line represents the workforce.

While at the beginning of 2020 the unemployment rate was recorded at a very low level of 4.98% (approximately 137 thousand registered job seekers), at the end of the year the registered unemployment rate reached the level of 7.57% (approximately 207 thousand registered job seekers) . The most significant increase in the number of the unemployed was observed in the month of April, where there was a month-on-month increase of 1.38% (March 2020 – 5.19%; April 2020 – 6.57%), which meant a loss of employment for approximately 38 thousand people. In the following months, unemployment grew much more slowly, with a slight decrease in unemployment occurring during the summer months. The drop in unemployment was probably also influenced by the relaxation of several restrictive measures (mainly in the field of tourism, hotel industry, catering services and other services provided). With the arrival of the autumn months and the worsening of the situation again, there was a change in the development of unemployment, the curve again changed its direction upwards with a gradual increase in the number of unemployed. The trend of unemployment growth did not stop even in the following year (2021), while it reached its peak in April 2021 with a registered unemployment rate of 8%, which represents almost 220 thousand registered unemployed. In the following months, the level of registered unemployment remained below this limit with a gradual decrease. The positive development on the labor market was probably also reflected in the continued positive development of available jobs. The sharp increase in unemployment in the first months of the corona crisis could be related to the announced mass layoffs in larger companies across Slovakia. Graph 3 shows the development of the registered unemployment rate (in %) in Slovakia for the period 2008 to 2022.

Graph 3: Developments in the registered unemployment rate (in %) in Slovakia during the years 2008 to 2022.



Source: Own processing based on data from the Statistical Office of the Slovak Republic.

2.3 Price level change due to the COVID-19 pandemic

The rate of growth of consumer prices was significantly affected by the emerging COVID-19 pandemic, which, together with the gradual closure of individual parts of the economy (especially sectors providing services requiring immediate social contact with customers), caused changes in the consumer behavior of individual households. Just before and after the outbreak of the pandemic, households started buying mainly food and essential goods. On the contrary, households spent the least amount of money on services compared to the period before the COVID-19 pandemic. The relatively sudden change in consumer behavior was related to a reassessment of spending due to concerns about the next development of the coronavirus pandemic. Even at the beginning of 2020, household consumption was growing slightly (Analytici ÚMS, 2020b), the biggest drop occurred during the second quarter, in which strict measures were taken against the spread of the COVID-19 disease, which, together with the declaration of a state of emergency, led to the involuntary closure of part of the economy.

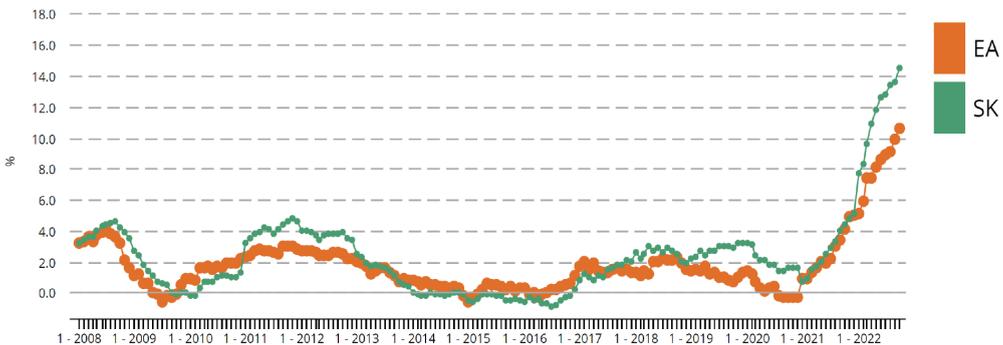
“Alongside the freefall in demand, COVID-19 has also had a significant impact on inflation expectations. Specifically, the pandemic has lowered businesses’ and professional forecasters’ inflation expectations over the year ahead, while simultaneously causing household inflation expectations to increase markedly. In this section, we provide evidence that firms and households view COVID-19 in fundamentally different ways, with firms and forecasters responding to the shock by ratcheting down their expectations in sharp contrast with the expectations held by households.” (Meyer, Prescott and Sheng, 2022)

Out of concern for their future income, households first limited spending on durable goods. The consumer mood of households was dominated by uncertainty about the future development of the pandemic and its possible impact on the labor market, and its subsequent impact on the incomes of individual households, which ultimately affects people's purchasing decisions. We could also see this phenomenon in the significant decrease in the registration of new cars (year-on-year drop of more than 60%). Consumers in more demanding and unfavorable economic situations often postpone the consumption of more expensive and less necessary goods until later. This is due to the fact that people (buyers) in periods of economic uncertainty do not want to incur unnecessary debt due to the consumption of goods. The recovery in long-term consumption usually occurs later than in the consumption of

ordinary goods, and is also directly dependent on the development of incomes of individual households (Analytici ÚMS, 2020b).

According to official data published in the NBS annual report for 2020, inflation reached 2.0% in 2020, i.e. j. a slight slowdown in inflation compared to the previous year 2019, with a value of 2.8%. When compared with other eurozone countries, Slovakia was among the countries with the highest rate of inflation growth. From an overall point of view, the level of price growth in the Eurozone (ECB, 2021) reached an average value of only 0.3% in 2020, compared to 2019, there was a decrease in inflation by 0.9% point (the inflation level of the Eurozone was in 2019 at the level of 1.2%). Graph 4 shows the development of inflation in Slovakia and the Eurozone (% change compared to the same month of the previous year).

Graph 4: Development of inflation in Slovakia and the Eurozone (% change compared to the same month of the previous year).



Source: Eurostat (2022). Available on the Internet: <<https://ec.europa.eu/eurostat/web/covid-19/economy#vis>>

Note: The orange curve presents the development in the Eurozone and the green curve presents the development in Slovakia.

According to Horváth (2021), faster price growth is a relatively normal indicator of economic recovery, even though prices grow faster than originally expected before the corona crisis. The current situation is further aggravated by the fact that it is a crisis caused by the COVID-19 pandemic, which has not yet ended in the world economy, as well as in the domestic economy. In the poor countries of the world, as a result of the restrictions introduced, the production of parts, extraction of raw materials and transport lag behind. At the same time, in the rich countries of the world, including China, there is already a large amount of investment and consumption. As we mentioned

in the previous paragraphs, the coronavirus pandemic caused a change in the consumer behavior of buyers, and this change is still continuing despite the recovery of the economy. The problem with a rapid change in consumer behavior is that manufacturers do not know and cannot react so quickly by changing production. This creates a shortage in the economy, and this causes pressure to increase the prices of goods and services.

Analysts from the NBS (2021a) predicted that inflation would approach the 5% level at the beginning of 2022, while this estimate was exceeded and inflation grew at a faster pace, reaching the value of more than 8% in February, with inflation exceeding double-digit values in the following months. The extremely high prices of energy commodities, which are reflected in the increase in the prices of electricity, gas and heat, contribute to the significant acceleration of the rate of inflation. While the resulting war conflict between Russia and Ukraine markedly contributed to the rapid growth of inflation.

3 Corona crisis in the business environment

Individual industries and entities were unevenly affected by the corona crisis. While most business sectors were significantly affected by the resulting pandemic and had to close their operations completely, or operated in a very limited mode, which was reflected in a rapid decrease in sales and economic results, there were also business sectors (entities) that quickly adapted to the newly created situation and knew how to use the situation relatively well to their advantage at the expense of other business sectors (entities).

3.1 Riskiness of professions and business areas - according to the index of physical proximity

During the COVID-19 pandemic, limiting social contacts between people proved to be a key solution to reducing the number of newly infected patients. Many professions and business sectors require close and intensive contact with the customer, because they have no other option how to provide their service or product.

In their professional articles, Leibovici et al. (2020) break down individual industries and occupations according to their physical proximity index. From the given industries and professions, they also single out those that are

important in the fight against the COVID-19 pandemic due to their significance and necessity, or are necessary for ensuring the basic needs of people and therefore cannot be restricted too much (or almost at all). This includes e.g. supply of food, medicines and other necessary goods, in the case of services, it is the provision of health care in hospitals, etc. On the other hand, there are professions and industries that also have close and intensive personal contact with customers during their performance, but their activity is not necessary during a crisis situation. It was these industries and professions that were hit hard by the pandemic, as consumers significantly reduced or completely limited the demand for their products and services.

Leibovici and the collective (2020) compiled a ranking of occupations and business sectors, according to the degree of intensity of physical contact between an employee and a customer, but also between other people. When calculating the index of physical proximity, they assigned values to individual occupations according to the extent to which the job requires being in close physical proximity with other people. The following Table 1 captures a selected sample of occupations ranked according to the index of physical proximity compiled by Leibovici et al.

Tab. 1: Sample of selected occupations sorted by physical proximity index.

Profession	IPP – HIGH RISK	Profession	IPP – MEDIUM RISK	Profession	IPP – LOW RISK
<i>Hairdresser, Barber, Beautician</i>	92,17	Undertaker	71,67	General and operational directors	48,67
<i>Nurses and Caretakers</i>	90,25	Fireman	70,20	Surveyor	48,40
<i>Nurses</i>	88,09	Electrician	66,50	Financial analyst	47,32
<i>Pilots, stewardesses of commercial flights</i>	81,60	Cook	62,00	Cleaning lady	45,67
<i>Teachers at primary schools</i>	79,54	Postman	60,07	Statisticians	38,83
<i>Waiter, Bartender</i>	75,17	Businessman, Broker	54,29	Forester, Conservationist	34,00

Source: Own processing based on data from Leibovici et al. (2020).

Note: The abbreviation IPP stands for - Index of Physical Proximity.

Based on this, a scale was compiled according to which they assigned values from 0 to 100. Individual occupations were classified into low risk (physical proximity index from 0 to 50), medium risk (physical proximity index from 50 to 75) and high risk (physical proximity index physical proximity over 75). Overall, Leibovici et al. (2020) classified up to 107 occupations when compiling the index of physical proximity, while up to 15 occupations were in the most risky area (at the top of the list were the professions of hairdresser, barber and beautician with a physical proximity index of 92.17 points, and at the end of the list of the most endangered occupations placed by a waiter and a bartender with a value of 75.17 points). The largest number of occupations, up to 66, were placed in the ranking with a medium level of risk, and 26 occupations were in the group with a low level of risk (the least risky occupations according to the index of physical proximity were the occupations of forester and conservationist with the achieved value of the index of physical proximity at the level of 34 points).

4 Government aid packages as a tool to stimulate the economy affected by the lockdown

Slovakia was one of the first countries in Europe to introduce the initial quarantine measures, but the Slovak Republic was somewhat slower when it came to introducing economic measures. It was overtaken by countries that introduced restrictive and quarantine measures a few weeks after us. Among the countries of the European Union, Germany had developed the most sophisticated and largest volume of resources to cover the adverse economic impacts caused by the coronavirus pandemic.

With the gradual introduction of restrictive measures (Čiernik, 2021), the main task of which was to reduce mobility and social contact between people, the introduced measures were also reflected in a slowdown in the economic activity of companies. As a result of the slowed down and low economic activity, the government of the Slovak Republic was obliged to adopt supporting economic measures (state aid packages) with the intention of reducing the adverse economic impacts in the economy. The recipients of state financial aid were business entities - legal entities, self-employed persons (hereinafter referred to as "SZČO") and also employees. Financial assistance from the state was intended for subjects who got into economic difficulties, while the accepted forms of assistance can be divided into the following groups: pandemic sick

and nursing allowances; allowance for rent (for establishments that had to be closed); contribution for SZČO, which experienced a drop in sales (by at least 20%) or which had to close their operations; contribution to SZČO, which saw a decrease in sales; the possibility of postponing the payment of contributions (only social insurance) in the event of a decrease in sales; allowance for wage compensation for employers (in the amount of 80% of average earnings, but not more than 1 100 €) who had to close their businesses; and other government support measures.

The Government of the Slovak Republic adopted several economic measures (state aid packages). Among the most significant received state aid packages, we could include:

- *"First aid"* – this is a package of assistance intended for employees, entrepreneurs and SZČO. The given aid package consists of several measures, the aim of which was to ensure direct financial support for jobs and business, while the package is co-financed from the European Social Fund.
- *"First aid PLUS"* - this is an aid package that came into effect on October 1, 2020 and is directly related to the "First aid" package, with the difference that the scope of aid has been increased and the range of eligible persons has also been expanded.
- *"First Aid ++"* - this was an additional extension of aid from the "First Aid PLUS" package, where financial contributions were increased again, while changes also occurred in the calculation of contributions with the intention of reducing the economic burden on employers from paying the full amount of contributions for their employees. Aid from this package was paid from February 2021 to June 2021 (MPSVaR⁷, 2021).
- *"De minimis aid"* - a financial contribution to travel agencies, accommodation and restaurant facilities, as well as other listed activities in the tourism industry is set to cover part of the fixed costs that eligible applicants had to incur during the period of their forced closure, the maximum amount of this aid may not exceed 200 000 € / to one company / for the period that includes the fiscal year and two previous fiscal years (Pakšiová, 2021); and other forms of state aid.

⁷MPSVaR – Ministry of Labour, Social Affairs and Family.

The website of the Ministry of Internal Affairs and Communications (2021) publishes monthly statistics on the provided form of government aid (from the "First Aid" package), including the specific amount paid. From the available data from March 2020 to October 2021, a total of 2 147 949 742,90 € in financial support was paid from the "First Aid" package. Of this, financial assistance in the amount of 997 406 222,98 € was provided in 2020, and in 2021 the amount of assistance provided was slightly higher, namely 1 150 543 519,92 €. More than 1/3 of the jobs in the Slovak economy were supported with the stated amount of financial aid paid. The highest paid monthly amount of financial aid was for the month of February 2021, namely 212 195 930,92 €. On the contrary, no financial support was provided for the month of August 2021. At the same time, we could find out from the available data that the financial aid tool ("First Aid" package) was most often used by micro-enterprises (enterprises with a maximum of 9 employees). The aid was most often directed to wholesale and retail trade, industrial production, construction, accommodation and catering services. A very frequently used measure among entrepreneurs was measure 3B (employer's contribution to employee salaries based on a decrease in sales), in which the highest amount of financial contributions was paid.

5 Methodology and research methods

The first three chapters show the negative economic impacts of the COVID-19 pandemic on basic macroeconomic indicators in the Slovak Republic and partly in the world. Among the basic macroeconomic indicators analyzed were gross domestic product, unemployment and inflation. Subsequently, we tried to capture the impact of the corona crisis in the business environment through the analysis of the riskiness of professions and business areas - according to the index of physical proximity. The third chapter is devoted to a theoretical summary of the adopted governmental support measures to mitigate the negative impact of the corona crisis. The fifth chapter is focused on a comparative analysis of the financial health of selected economic entities (legal entities - entrepreneurs, natural persons - entrepreneurs and natural persons - employees). Part of this chapter is also the analysis and subsequent evaluation of the received government aid packages to mitigate the negative impact of the corona crisis on the financial health of economic entities.

The main source for the processing of the first three chapters was mainly

professional and scientific articles, but also various analyses carried out, especially by the National Bank of Slovakia and the European Central Bank. Other important sources of information were the legislation that was adopted in connection with the elimination of the negative impacts of the COVID-19 pandemic on business entities. At the same time, when processing these chapters, we had to use a selection of methods, as we encountered a large amount and scope of information when searching for it.

When analyzing the impact of the corona crisis on the financial health of legal entities - entrepreneurs, we used the method of comparative analysis in evaluating the impact of the pandemic on individual business sectors and selected business entities. The source of information for the analysis was mainly the financial statements of selected accounting units for the accounting period 2020 and 2019. In addition, the FinStat website was also an important source of information. The same research methods were also used in the analysis of the impact of the corona crisis on the financial health of natural persons - entrepreneurs. We used the questionnaire survey method to determine the impact of the corona crisis on the financial situation of natural persons - employees, while we partially used the data from the questionnaire survey to analyze the evaluation of the measures taken by the government to mitigate the economic effects of the corona crisis.

As a result of individual comparative analyses and the use of the deduction method, we came to the conclusion of how the COVID-19 pandemic affected the financial health of individual economic entities in the Slovak Republic.

6 The impact of the corona crisis on the microenvironment

6.1 The impact of the corona crisis on the financial health of selected business entities - legal entities

The aim of implementation of several analyses aimed at evaluating the impact of the coronavirus pandemic on individual business sectors was to find out which sectors were most affected by the corona crisis, and at the same time to point out the sectors that were quite successful during the corona crisis (they showed positive growth in the development of sales or economic results). In the conducted analysis of business entities - legal entities, we used a sample

of 33 business sectors, while from each sector we selected a sample of 1,000 companies with the highest achieved sales from the given sector.

Based on our analysis, we can conclude that most business sectors experienced a drop in their sales during the first year affected by the corona crisis (2020) compared to the previous year unaffected by the corona crisis (2019). Specifically, there was a drop in sales in 21 sectors (Graph 5), with the most significant drop in sales in the tourism and catering industry, where we recorded a drop in sales of 42.84%. The significant decline of this industry is largely due to the strict restrictive measures introduced against the spread of the COVID-19 disease. The second most significant drop was recorded in the gambling sector, where the drop in sales was at the level of -26.25%. They were followed by industries - chemistry and plastics (-14.45%); sale and maintenance of vehicles (-14.08%); electrical engineering (9.84%); metal production and metallurgy (-9.42%); automotive industry (-9.24%) and etc. On the contrary, in our analysis, we could observe an increase in sales in only 12 business sectors, while in the food industry the amount of sales achieved was at almost the same level as in the period before the corona crisis. In the year 2020 affected by the corona crisis, the following sectors did the most (based on the increase in their sales in 2020) - real estate (10.83%); public administration (8.05%); services (7.79%); agriculture and forestry (5.58%); law, consulting and accounting (5.38%) etc. According to data from the FinStat website (2021), the volume of generated sales for 2020 reached the value of approximately 208 723 million € (based on a sample of 238 535 Slovak companies). In the previous year (2019), the volume of generated sales reached the value of approximately 221 478 million € (based on a sample of 219 234 Slovak companies). From the data, we can see that the volume of produced sales was lower by approximately -5.76% in the year (2020) affected by the corona crisis.

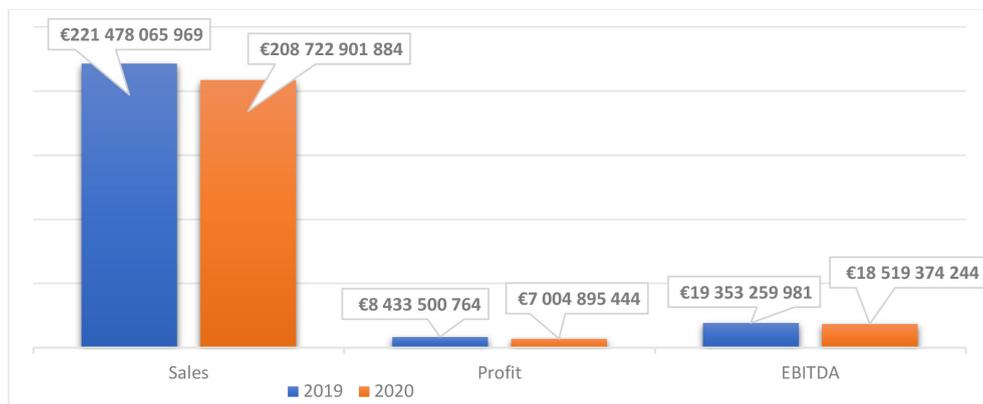
Graph 5: Changes in sales by individual business sectors for 2020 compared to 2019 (in %).

Source: Own processing based on data from FinStat⁸.

⁸ Note: The percentage changes in sales in 2020 compared to 2019 were calculated on a sample of 1 000 companies with the highest achieved sales for the given industry. In addition to sectors - public administration (11 enterprises), waste treatment (901 enterprises), telecommunications (676 enterprises), manufacturing - other (976 enterprises), automotive industry (333 enterprises), gambling (274 enterprises). We consider the term accounting unit, enterprise, company to be synonyms.

Graph 6 captures the development of sales, operating results (profit) and EBITDA of accounting units in the Slovak Republic in 2020 compared to 2019.

Graph 6: Development of sales, profit and EBITDA (in 2019 and 2020).

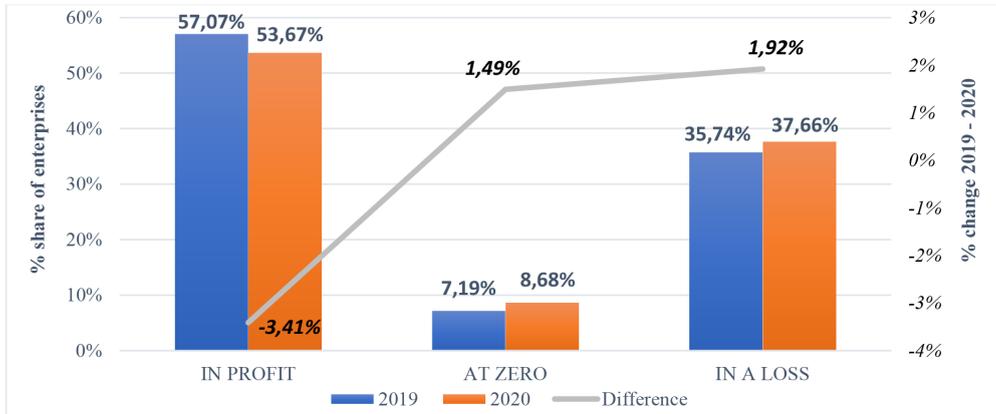


Source: Own processing based on data from the FinStat website (2021).

In the case of other indicators, we can also observe their decline. For example, in the development of the economic result - the profit of Slovak companies, it was possible to observe a decrease in value from approximately 8 434 million € in 2020 (based on a sample of 238 535 companies) to a value of 7 005 million € in 2019 (based on a sample of 219 234 companies), which represented an annual decrease in the economic result - profit by approximately 16.94%. The EBITDA indicator (economic result before deducting interest, taxes and depreciation) recorded a decrease in value from approximately 19 353 million € (on a sample of 238 535 companies) to a value of 18 519 million € (on a sample of 219 234 companies), which represented a year-on-year decrease in EBITDA of approximately -4.31%.

Other interesting information published on the FinStat website (2021) included changes in the number of accounting units in loss, in profit and with a zero economic result for the years before the corona crisis (year 2019) and during it (year 2020).

Graph 7: Percentage share of Slovak accounting units – in profit, in loss and with a zero economic result and their percentage change in 2020 compared to 2019.



Source: Own processing based on data from the FinStat website (2021).

As we can see in Graph 7, in 2020 compared to 2019, the share of accounting units reporting a profit decreased by -3.41%, the share of accounting units reporting a zero economic result increased year-on-year by 1.49%, and the share of accounting units reporting a loss increased by 1.92% year-on-year.

Profitable accounting units collectively produced a profit of approximately 10 934 million € in 2020. On the other hand, the loss-making accounting units collectively produced a loss of approximately 3 989 million € in 2020.

6.2 The impact of the corona crisis on the financial health of selected natural persons - entrepreneurs

In this subsection, we analyzed the impact of the COVID-19 pandemic on the financial health of selected natural persons - entrepreneurs. Since the data on natural persons - entrepreneurs are not publicly available, but also due to the protection of personal data of these natural persons, we will not mention their real names in the following analysis. For individual natural persons - entrepreneurs, we will therefore only indicate the area in which the given natural persons do business. The data obtained from natural persons - entrepreneurs did not only come from double-entry bookkeeping, but also from simple accounting, tax records, or the given natural persons - entrepreneurs used the opportunity to prove their expenses as a % of income.

The sample of selected natural persons - entrepreneurs was diverse, as these entrepreneurs were engaged in the provision of motor vehicle repair (hereinafter referred to as "car service"), retail sales of drugstores (hereinafter referred to as "drugstore"), catering services (hereinafter referred to as "restaurant"), retail sales luxury clothing (hereinafter referred to as "luxury clothing"), ambulatory sales of goods via mobile stands (hereinafter referred to as "mobile stands"), irregular bus transport (hereinafter referred to as "transport"), sale of textiles (hereinafter referred to as "textiles"), consultancy relating to of computers (hereinafter referred to as "PC consulting") and the last analyzed entrepreneur - self-employed person was a seller of electronics and lights (hereinafter referred to as "electricity").

We carried out a basic analysis of the costs (or expenses) and revenues (or income) of the given entrepreneurs. In this analysis, we examined the impact of the COVID-19 pandemic on the development of costs (expenses) and revenues (income) of the given entrepreneurs.

Tab. 2: Costs (expenses) and revenues (income) of selected natural persons - entrepreneurs in 2020 compared to 2019.

Name	Revenues (income) in €		Δ (v %)	Costs (expenses) in €		Δ (v %)
	Year 2020	Year 2019		Year 2020	Year 2019	
Car service	49 008,97	56 610,45	-13,43%	47 544,34	53 691,23	-11,45%
Drugstore	489 877,91	318 295,77	53,91%	488 921,82	323 339,21	51,21%
Restaurant	265 827,73	564 783,43	-52,93%	258 505,73	659 735,46	-60,82%
Luxury clothing	26 594,28	75 205,41	-64,64%	79 928,27	74 513,35	7,27%
Mobile stands	42 808,30	84 267,50	-49,20%	41 814,74	63 893,12	-34,56%
Transport	48 550,77	86 966,04	-44,17%	86 682,01	67 552,21	-22,07%
Textiles	313 207,34	297 102,57	5,42%	313 788,95	296 905,30	5,69%
PC consulting	3 537,56	14 131,56	-74,97%	2 378,58	11 050,27	-78,47%
Electricity	1 613 040,97	1 863 113,12	-13,42%	1 477 887,65	1 758 929,60	-15,98%

Source: Own processing.

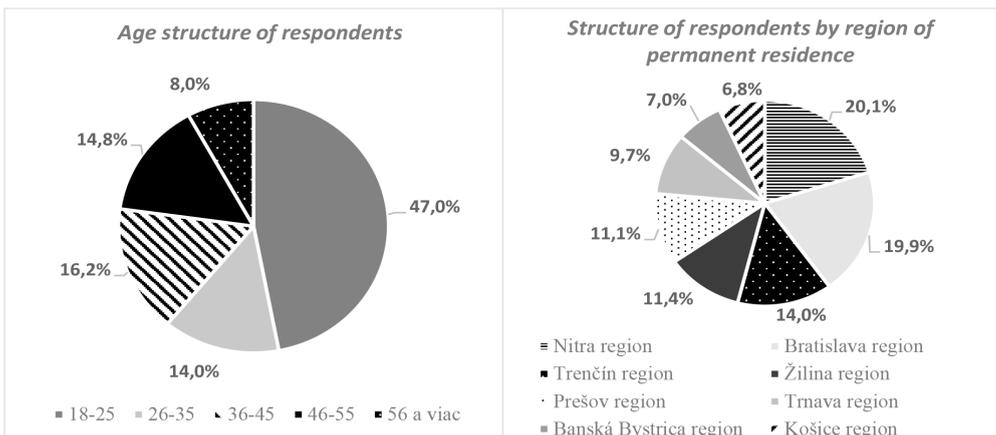
As we can see from Table 2, in 2020 compared to 2019, we recorded a decrease in income for most natural persons - entrepreneurs. From the information obtained, we could say that during the year affected by the corona crisis, the

revenues (or incomes) of the majority of SZČO decreased, while the most significant drop was recorded mainly by natural persons - entrepreneurs who did business in the field of gastronomy, retail sale of clothing, provision of irregular bus transport. On the contrary, the most successful was a natural person - an entrepreneur who did business in the field of drug store sales. In the development of costs, we could see that for almost all investigated natural persons - entrepreneurs, costs decreased in direct proportion to revenues, except for the accounting unit - luxury clothing, where, despite a high year-on-year decrease in revenues by more than 64%, there was a year-on-year increase in their costs by more than 7%.

6.3 The impact of the corona crisis on the financial health of selected natural persons - employees

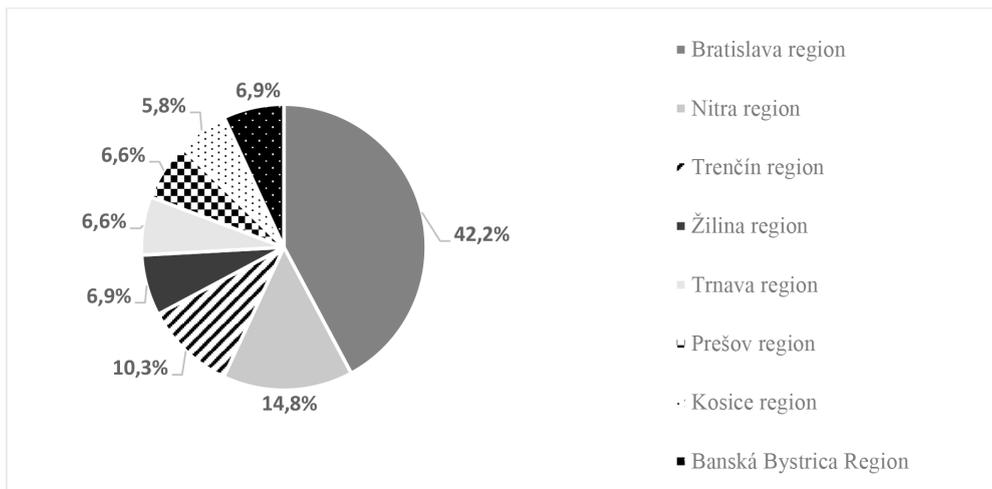
When examining the impact of the COVID-19 pandemic on the financial situation of natural persons - employees, we used a questionnaire survey to obtain information about their financial situation, which was carried out between 20 December, 2021, and 17 January, 2022. Information on the financial situation of natural persons – we managed to get employees from 413 respondents. 242 women and 171 men participated in the survey. The age structure of respondents and the structure of respondents by region of permanent residence is shown in Graph 8. The structure of respondents by region of their work is shown in Graph 9.

Graph 8: Age structure of respondents and structure of respondents by region of residence



Source: Own processing based on a questionnaire survey

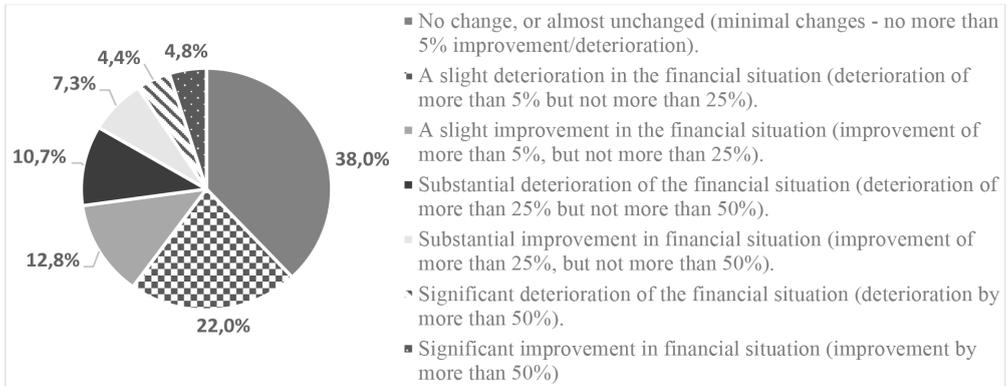
Graph 9: Structure of respondents according to the region of their work



Source: Own processing based on a questionnaire survey.

In connection with the emerging COVID-19 pandemic, we asked respondents whether the emerging COVID-19 pandemic affected their financial situation. More than half of the respondents (specifically 235 respondents) stated that their financial situation had changed due to the COVID-19 pandemic, and the remaining 178 respondents stated that their financial situation was not affected by the emerging COVID-19 pandemic. This question was followed by a question in which we asked the respondents: *"To what extent has the COVID-19 pandemic affected your financial situation compared to the period before the COVID-19 pandemic?"* The total choice of respondents to this question is shown in Graph 10.

Graph 10: Change in the financial situation of respondents during the COVID-19 pandemic compared to the period before the COVID-19 pandemic



Source: Own processing based on a questionnaire survey

In the next question, we were interested in whether the given respondent works or does not work: 81.1% of respondents worked; 10.7% of respondents worked but are currently not working (e.g. job loss due to the COVID-19 pandemic, parental leave, etc.) and 8.7% of respondents stated that they do not work and have not worked. If the respondents selected the option - worked but is currently not working, then they were shown additional questions that were intended for workers.

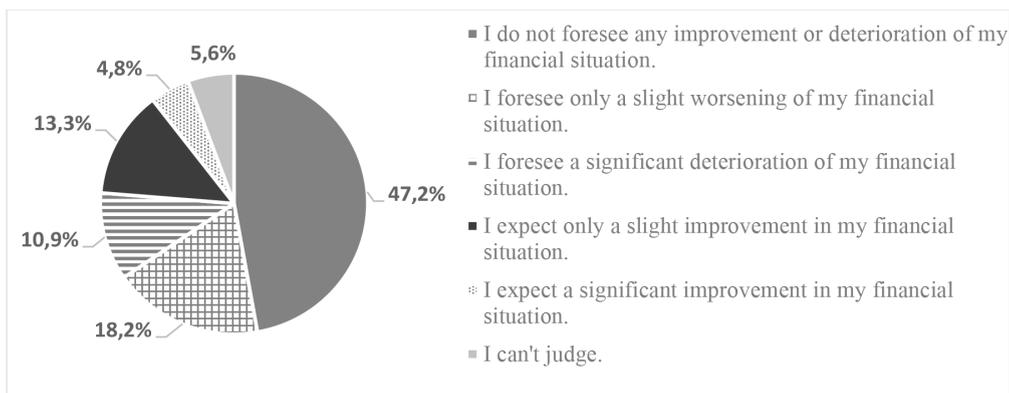
Out of the total number of working respondents (335 respondents), most respondents worked in the following sectors: economy, accounting, finance and law (77 respondents), trade (32 respondents), administration (31 respondents), information technology (31 respondents), tourism and gastronomy (28 respondents), services (28 respondents), banking and insurance (25 respondents), healthcare (17 respondents), education and training (15 respondents), state and public administration (15 respondents), transport and logistics (12 respondents), food industry (10 respondents), industry (10 respondents), manufacturing (8 respondents), electrical engineering (6 respondents), construction (6 respondents), engineering (5 respondents), mining (4 respondents), agriculture and forestry (2 respondents) and 17 respondents stated otherwise.

In the following question, we asked respondents if they lost their jobs during the COVID-19 pandemic. As many as 83.9% of respondents said that they did not lose their job during the COVID-19 pandemic, and 16.1% of respondents said

that they lost their job during the COVID-19 pandemic. For those respondents who stated that they lost their job during the COVID-19 pandemic, we were subsequently interested in whether the given respondents managed to find a new job, or how long did it take them to find her. Of the 61 respondents who lost their jobs during the COVID-19 pandemic, 12 respondents failed to find a new job, the remaining 49 respondents managed to find a new job. Of these, 24 respondents stated that they found a job more than 3 months after losing their job, and 25 respondents managed to find a new job within 3 months after losing their job.

We further asked the respondents what their estimate of the future development of their household's financial situation is (in the event that the COVID-19 pandemic continues to cause part of the economy to close, or lockdowns are reintroduced). More detailed results of the respondents are shown in Graph 11.

Graph 11: Estimate of the future development of the household's financial situation (assuming that the COVID-19 pandemic will continue to cause the closure of part of the economy, the so-called lockdown)



Source: Own processing based on a questionnaire survey

Based on the responses of the participants, we can conclude that the COVID 19 pandemic had an impact on the financial situation of the majority of natural persons - employees, although according to the results of our survey, a large part of the respondents did not feel the deterioration or improvement of their financial situation (since a large part of the respondents worked in the field of economics, accounting , finance and law, administration, in the field of information technology, in the banking and insurance sector, etc., i.e. in sectors

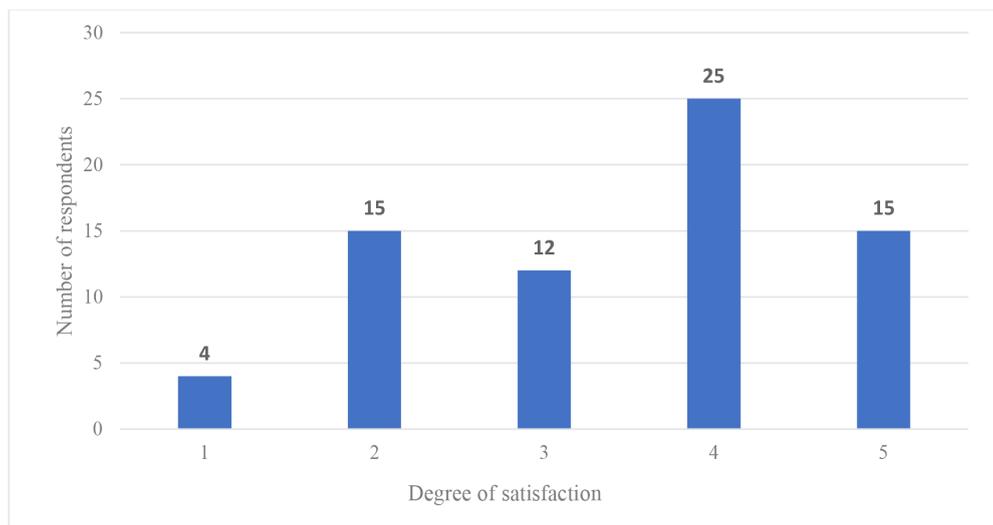
that were not directly affected by the COVID-19 pandemic). At the same time, this group of respondents was most allowed to work from home. On the contrary, the worsening of the financial situation was felt by natural persons - respondents who worked mainly in the tourism and catering industries, services, trade, and production. At the same time, this group of respondents expects their financial situation to deteriorate to the greatest extent in the event of the continued re-closing of part of the economy.

6.4 Evaluation of measures taken by the government to mitigate the economic impact of the corona crisis

As part of the questionnaire survey, we also asked the respondents questions related to the provided forms of assistance. Specifically, we asked the respondents whether they received (or used) any form of government assistance during the COVID-19 pandemic (e.g. deferment of loan payments, income compensation, pandemic OČR and PN and other forms of financial assistance). Out of 413 respondents, only 71 respondents (i.e. 17.2%) used this form of assistance, who worked in various industries (mainly industries - tourism and gastronomy (15 respondents); economics, accounting, finance and law (12); services (9); business (8); administration (5); healthcare (3); banks and insurance companies (2) and others). Subsequently, we asked these 71 respondents how satisfied they were with the amount and speed of disbursement of the given form of financial assistance. Graph 12 expresses the level of respondents' satisfaction with the amount and speed of disbursement of the given form of financial assistance.

As we can see from Graph 12, the most respondents (25) were dissatisfied with the given amount and speed of the financial form of the provided aid (level 4), and 15 respondents were absolutely dissatisfied (level 5). There were 12 respondents who were neither satisfied nor dissatisfied (medium level – 3) with the amount and speed of disbursement of the given form of financial assistance. On the contrary, only 4 respondents were absolutely satisfied (level 1) with the provided form of financial assistance and 15 respondents were moderately satisfied (level 2).

Graph 12: Level of satisfaction with the amount and speed of disbursement of a given form of financial assistance during the COVID-19 pandemic



Source: Own processing based on a questionnaire survey⁹

Based on the evaluation of the government's aid packages, we can conclude that the Slovak government tried to adopt various support measures to rescue, or support the affected business environment. Despite the government's efforts to help entrepreneurs, more than half of entrepreneurs (Apolen, 2021) consider the adopted anti-epidemiological measures to be unclear and incomprehensible, at the same time, almost $\frac{3}{4}$ of entrepreneurs consider the state aid to be weak and insufficient, while the majority of entrepreneurs consider direct financial assistance to be the most effective measure in mitigating the effects of the COVID-19 pandemic. According to the entrepreneurs, other suitable tools of assistance would include: reduction (or remission) of levies from work and direct taxes (said 38% of enterprises), but also help in the form of payment of part of the rent to entrepreneurs (said 19% of enterprises)¹⁰.

Also, in our opinion, the received government aid packages were unclear and in some cases the criteria for obtaining the given contribution were very demanding. In addition, the system for paying financial contributions was very slow and administratively very demanding. In some cases, entrepreneurs

⁹ Respondents had a choice of 5 levels of satisfaction, with level 1 - meaning absolute satisfaction and level 5 - expressing absolute dissatisfaction with the given form of financial assistance.

¹⁰ The questionnaire survey was carried out by the Business Alliance of Slovakia. Available online: <<https://www.alianciapas.sk/2021/10/19/podnikatelia-sa-obavaju-dalsej-vlny-podpora-od-statu-je-ne-dostatocna/>>

were waiting for several weeks for paid financial assistance, which is not very good for an entrepreneur threatened by the COVID-19 pandemic in terms of the threat to his financial health.

In our opinion, the government of the Slovak Republic should have focused more on providing a direct form of financial assistance, which is also according to the conducted questionnaire survey (Business Alliance of Slovakia, 2021) the most effective and best way of financial assistance for most entrepreneurs. In addition, the government should have simplified and made the implementation of anti-epidemiological measures more transparent, as they changed very often and, above all, too quickly (in some cases, changes were made within one or a few days after the announcement of new measures), which gave entrepreneurs insufficient time to adapt, but also to plan future business activities.

7 Conclusion

In addition to the large number of infected people, the emerging COVID-19 pandemic also claimed a significant number of victims not only in the world, but also in Slovakia. On top of the resulting health crisis, the new coronavirus pandemic brought about a significant economic crisis. The resulting economic crisis was mainly related to how individual countries and governments of the world took measures related to slowing down the spread of that disease. The basic principle that guided governments around the world was to limit the mobility and meeting of people, so measures were taken that limited travel and meeting between people as much as possible. The introduction of such measures proved to be a good tool in the fight against the COVID 19 pandemic, but on the other hand, the measures taken had a negative impact on a number of business sectors and entities, which in turn affected the financial situation of natural persons - employees and, ultimately, the entire economies of countries.

The impact of the COVID-19 pandemic caused a significant slump in the Slovak economy already in the 2nd quarter of 2020, during that period macroeconomic indicators such as GDP worsened or fell significantly and unemployment increased significantly. During the following months, the situation gradually stabilized, although the arrival of the next three waves of the COVID-19 pandemic partially worsened those indicators, but no longer to the same extent as during the 1st wave of the COVID-19 pandemic.

From our analysis of the impact of the COVID-19 pandemic on the financial health of selected entities in the Slovak Republic, we can conclude that the COVID-19 pandemic had a significant impact on the financial situation of individual business sectors and economic entities. We could say that most business sectors, or subjects felt the negative economic impact of the pandemic on their financial situation (they were mainly sectors providing services and leisure activities, production, industry and other sectors), while business subjects engaged in tourism and gastronomy suffered the worst. On the other hand, during the corona crisis, the real estate industry did the most, and recorded the highest year-on-year increase in sales. During the emerging corona crisis, the biggest challenge for individual businesses was therefore maintaining cash flow, covering fixed costs during limited operations, maintaining jobs and covering the tax and levy burden of businesses.

The impact of the COVID-19 pandemic was also felt by natural persons - employees, where more than half of the respondents stated that the COVID-19 pandemic affected their financial situation. As a result, the majority of natural persons - employees experienced worsening of their financial situation. To mitigate the negative impacts of the COVID-19 pandemic, the Government of the Slovak Republic adopted a number of support measures, which were provided in the form of direct financial aid, but also in the form of indirect aid (e.g. postponement of repayments of loans, taxes, insurance premiums, etc.). Despite the received government aid packages, the impact of the COVID-19 pandemic on the economy and individual economic entities was noticeable. The future development of the COVID-19 pandemic will have a significant impact on the future development and recovery of the Slovak economy. A big threat is represented by the constant development of new mutations of this disease, which can cause the re-closing of part of the economy (so-called lockdowns). A military conflict between Russia and Ukraine, which could significantly stop growth, or revival of the economy, and vice versa, the given war conflict could cause a recession and a significant acceleration of price growth, which would subsequently lead to a dramatic drop in the standard of living.

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