

How the Generosity of Pandemic Aid Has Affected Poverty and Unemployment

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Abstract. In the article we deal with the degree of pandemic assistance, resp. its level in terms of the impact on basic economic and social indicators of unemployment and poverty. We will discuss its legislative anchoring and solutions offered by the Slovak government in cooperation with European partners. We analyze in detail its practical application in the conditions of the Slovak Republic with the perspective of incorporating these tools “*kurzarbeit*” as stabilizers for future cases. We will propose development scenarios that describe the situation in the case of none, respectively insufficient aid, in relation to job trends and structures in the context of newly created labor market conditions. We will focus on the possible effects of unemployment and the rate of increase in poverty caused by the pandemic. We will evaluate pandemic aid from the government on the indicators we monitor, unemployment and poverty. We will evaluate possible changes and their impact on the social area and potential problems to which society will be forced to respond.

Keywords: labor market, unemployment, pandemic assistance, poverty

JEL classification J21, J64, I32

1 Introduction

Employment is a key issue in finding an answer to how an individual or family can meet their needs. It is the most desirable form of how to be useful for society and at the same time build your independence and thus your social status. If employment is endangered, it negatively affects the psychological side of the personality and at the same time it also changes consumer habits. Ultimately, this adversely affects society, the economy and social ties. The measures taken affected individual sectors of the economy and thus directly the companies and their employees. Redundancies began to be considered as a subsequent form of rescuing companies when entrepreneurs could not carry out their business. The advantage was given to companies that were able to

implement their business through info-communication technologies. Employees stayed at home for the so-called "Home office" and all activities were carried out via the Internet in electronic form. In the structure of the Slovak economy, this is 29% of jobs (Wood & company) [10], which can be implemented in this form. Analysts from the Ministry of Finance looked at these options in more detail and created an output that analyzes the sectors affected by the pandemic in more detail and to what extent. Politicians have responded to this trend, but in order to avoid unnecessary failures, the European Union has begun to take over as a coordinating body. According to Article 9 itself in Title II of the Treaty on the Functioning of the European Union [11] it should take into account the objective of a high level of employment when defining and implementing its policies. Taking into account the risks and impact in each Member State, this represented major economic losses when companies had to reduce or close down. Impact on workers' working time, in the form of shortening or stopping indefinitely, the EU has been forced to find tools or a mechanism to meet its employment targets. A solution called SURE (Support to mitigate Unemployment Risks in an Emergency) [5], to support the governments of the individual Member States in order to maintain employment. The instrument was activated on 22 September 2020 and Member States can receive money from it through very advantageous loans and thus finance national employment support programs, including the so-called short work. The aim is for employees to receive financial compensation for hours they do not work, because the current situation has forced their employer to shorten or suspend their working hours. € 100 billion [12] is available for all 27 countries. 631 million euros were allocated for Slovakia. SURE is a temporary tool to deal with the acute consequences of a global pandemic.[6] The European Commission is now also working on a new proposal for a European unemployment insurance system. Closely related to this is the risk of poverty, which is still present in Europe and its reduction is only slightly improving.

1.1 Unemployment and poverty

In the EU, about 1/5 of the population [13] is at risk of poverty especially in some post-communist and southern countries. The Slovak Republic has better parameters than the EU average, but this is related to low incomes and relatively low differences in income inequality. We define poverty as a measure of the population with incomes lower than 60% of the median of the national equivalent disposable income in a given country [14]. The higher the average wage, the relatively good real wages may not exceed the poverty line. Therefore, poverty is also defined by additional parameters such as the level of material deprivation, and this speaks of the possibility of obtaining at least three of the nine monitored criteria. In the Slovak Republic, according to the data of the Statistical Office of the Slovak Republic, the situation is as follows.

Table 1: Material deficiencies that most people in the Slovak Republic face

Description	In % population	Number of persons (thousands)
They cannot afford 1 week of vacation away from home	34,8%	1 874
They cannot face unexpected financial expenses (373€)	26,1%	1 408
They can't afford a meat meal every other day	11,8%	634
They can't afford a car	7,7%	415
They have arrears (loans, mortgage, rent, energy)	6,7%	360
They cannot afford adequate warmth at home	5,7%	309
They can't afford a washing machine	0,4%	19
They can't afford a color TV	0,1%	7
They can't afford a phone / mobile	0,1%	6

Source: EU SILC 2020

As the data show, the highest proportion of items are directly dependent on income, the inability to spend 1 week away from home, or the inability to make savings on unexpected expenses reflect low income and at the same time that all funds raised are immediately consumed. This is 1/3 of the population, which does not offer a good picture of social policy in the Slovak Republic and at the same time raises the question of the adequacy of income or, conversely, the ability of individuals or families to manage funds. Unfortunately, this is not possible in the situation of the last months, when the pandemic mainly affected the economy, which was reflected in the growth rate, respectively. decline in GDP as follows. From the first quarter of 2020, we recorded a decline of 5.1%, followed by a deepening decline of -1.1% in the second quarter. It was necessary to respond to this situation with state aid to the sectors concerned. The subsequent short but significant recovery in the third quarter of + 11.6% [14] was a great hope, the shock was only temporary and short-term, and the subsequent waves returned to the situation of negative growth, which needed to be addressed. During 2021, the situation in the economy stabilized in terms of macroeconomic indicators but still did not reach the pre-pandemic level. Our goal will be to analyze how the system of assistance by the Slovak government has mitigated the macroeconomic unemployment rate and we will look at how it affected the numbers of people who fell or could fall into poverty.

1.2 Systemic measures taken in the Slovak Republic to alleviate unemployment and poverty

The government tried to solve the situation systematically, mainly through the Ministry of Labor and Social Affairs. The Minister of Labor was active in this direction, declaring the measures taken on the sidelines. „*This year, despite the pandemic, only 4,300 jobs were reported in collective redundancies where people were to lose their jobs.*“ We managed to avert two-thirds of this, which means that only 1,535 people were actually laid off, thanks to the functioning measures in place.“ [7] The seriousness of the situation is also illustrated by the statement of the press and communication

department of the Ministry of Labor and Social Affairs on the situation in the field of tourism, which is very affected by the pandemic., *Tourism in Slovakia accounts for about three percent of gross domestic product and employs about 100,000 Slovaks. "Every million euros we spend on domestic tourism will create or maintain 52 jobs."*

[8] Regarding human resources as capital to be protected, the European Commission recalls that the coronavirus crisis is a major challenge for the European economy and the lives of its citizens. During this health crisis, it is essential that we protect not only the critical sectors of our economy, but also our assets, technologies and infrastructure. [17] An important parameter in resource planning and subsequent assistance is the structure of jobs in terms of the possibility of performing telework.[2]

This mainly affected sectors where there is direct contact with customers. These sectors needed to be supported so that they would not disappear and their employees would not be exposed to a sudden income shock and thus be protected from the threat of poverty. At the end of March 2020, the Government of the Slovak Republic approved measures aimed at mitigating the economic impacts of the COVID-19 pandemic. First, new types of sickness benefits in the form of pandemic sickness and nursing allowances were approved. Subsequently, the government also introduced direct aid measures to maintain jobs within the so-called "First aid" for employees, entrepreneurs and the self-employed. In parallel with these measures, it made it possible to defer or waive social security contributions for some employers. Financial support through the "First Aid" measures was disbursed until the end of February 2022. The first aid system is processed by individual measures 1-4, and is on the page of the Ministry of Labor, for us it was a basic precondition in the first phase.

Following taking into account the current situation and the impact on the economy, the government increased its contributions through additional programs as follows. In February 2021, the so-called First aid + and in July 2021 First aid ++. It was basically an increase in financial assistance in individual programs. To give you an idea, it was an increase of 30% of the previous contribution and then another 20% for first aid ++. A summary of these follow-up measures is given in Table 2.

Table 2: Characteristics of measures taken

Measures	First aid	First aid +	First aid ++
Measures (1 and 3)	80% brutto salary	80% total cost of labor	100% total cost of labor
Measures (2)	180€ - 540€	270€ - 810€	330€ - 870€
Measures (3)	-	-	330€ - 870€
Measures (4A a 4B)	210€	315€	360€

Source: processed by author

Under these agreements, aid totaling more than € 2.1 billion has been distributed. This amount supported about a third of jobs in the economy. This support also indirectly affects the subsequent category, namely poverty, as 16.3% of the population of Slovakia is currently at risk, which represents 872,000 people. [9] This is documented

by data from the Statistical Office of the Slovak Republic. „*The most poor people are in the Banská Bystrica and Prešov regions, almost 400,000 people. As a result of the new coronavirus pandemic, another 20,000 to 50,000 people may be in this category*” [18] assumes economic analyst FinGO.sk.

2 Hypothesis

In order to compare the results, we chose a procedure where we will compare the situation without state intervention with the situation that has taken place. For this purpose, we set two hypotheses.

"H0" - will try to analyze the situation if this financial assistance did not come and the situation would be solved only by existing instruments. This scenario is realistic and will also take into account the rate of potential transfer of workers from sectors affected by the pandemic to less vulnerable sectors. It means how the structure of the economy will change, especially the decline in services at the expense of production, or services provided explicitly electronically. From this we derive the rates of poverty and unemployment.

"H1" - will try to analyze the situation after the introduction and acceptance of pandemic assistance. We will assess the impact on the structure of the economy and try to derive the effectiveness of the funds spent in relation to the productivity and behavior of workers. Specifically, we will try to find out whether the financial support, so to speak, without consideration, did not cause an attempt to try to bend the system to the individual benefit of companies or individuals.

3 Data and methodology

The analyzes will be based on data from Eurostat, SILC, and the Statistical Office of the Slovak Republic, we will display the poverty and unemployment rate over time during the period under review and estimate a positive and negative scenario of their development in the absence of this financial assistance. By comparing them, we created scenarios of how the situation could have developed if the pandemic had not occurred at all (Scenario No. 1), where we assumed that the level of the unemployment rate would be constant and oscillate around 5%. Subsequently, the situation (Scenario No. 2), where the current situation is captured, according to the data of the Academy of Sciences of the Slovak Republic and in our analysis, we take into account data from the records of the total number of available job seekers. This selection is about 1% higher and better reflects the number of people who may be at risk of income shortages and thus their inability to meet their basic needs. In other scenarios (3,4,5). see Tab. No. 4, we considered data on the amount of support, its duration and especially the number of affected persons as the basis for estimating the development of unemployment, without support. The total number of persons varied in individual months, for the sake of simplification we created quarterly data, the sum of data in individual months. We assumed that support per individual was the basic unit of the job at risk. It is clear from the Ministry of Labour data how many jobs were supported in individual periods and

these data created a picture of the number of laid off employees, ie. we assumed that each supported job would be canceled, respectively. workers are made redundant as the employer does not have the means to pay them. Subsequently, we created three more scenarios where we reduced this number due to the fact that not all employees would be laid off by the employer, at the same time we considered that some of the employees in the affected sectors would be employed in another unaffected sector. These are the following scenarios. Scenario 3 sets a threshold of 65% of supported jobs, which represents the rate of increase in unemployment in the absence of state assistance. We have described it as medium and assume that the real state without pandemic support could oscillate somewhere around the curve it represents. In Scenario 4, we set a limit of 90% of supported jobs, which is a pessimistic variant, where the inflexibility of the market and the strict attitude of employers to economic reality, falling sales, unwillingness to take risks, because there was no known time to re-exercise their activity, reluctance to accept calls to upgrade your business, e.g. transition to the online environment. Subsequently, in scenario No.5 we set a limit of 35% of supported jobs, we called it optimistic and it talks about the situation if the offered opportunity would be used to structurally change the current functioning and adapt to new trends or the creation of new jobs.

Table 3: Overview of scenarios and their calculation methodology.

Scenario	Scenario description	Calculation	Explanation
Scenario 1	Status quo - absence of a pandemic	UN-level constant 5% $U_n = A$	UN - constant at the level of the unemployment rate before the pandemic
Scenario 2	The fact that occurred according to the data Statistical office	UN - constants at the level of the recorded rate U_oZ $U = A + Bx$	Inherited end data from statistics accepted as fact * own calculation and individually determined limit for examining the consequences
Scenario 3	filling of graves to the extent 2/3	$U = A + Cy$	
Scenario 4	filling of graves to the extent 9/10	$U = A + Dy$	* own calc.
Scenario 5	filling of graves to the extent 1/3	$U = A + Ey$	* own calc.

UoZ - job applicant

A – constant, Bx- linear function of increase or decrease in the existence, y – total number of jobs supported in the relevant quarter, Cy – function that comes out as 65% (C=0,65) from “y”, Dy – function that comes out as 90% (C=0,90) from “y”, Ey – function that comes out as 35% (C=0,35) from “y”

When output, it was necessary to take into account that due to the duration and at the same time to the different rate in the individual waves, the actual scenario may develop across several scenarios, ie. it can start in 65% to move in the summer to 35% followed

by a lockdown to 90% and again to a lower one. We created our own data file from the source data of the affected institutions, above which we subsequently processed data for individual scenes according to the above equations.

4 Results

The main goal was to estimate the difference in development in situations without and with state support. We obtained data for H1 from available sources of the Statistical Office of the Slovak Republic and Ministry of Labour, as they are known, they capture the state that occurred. We had to estimate the data for H0 on the basis of indirect data, which represent the number of supported jobs in individual months. In the relevant graphs, we want to point out the maximum possible rate that could have occurred, provided that 90% of all supported cities will be unchanged during the period under review. In the case of the unemployment parameter, we proceeded in such a way that we considered all supported jobs as terminated employment, and in (figures 1 and 2) we see the situation that captures the course of individual waves and the maximum possible impact on this monitored parameter. With these extreme scenarios, we point out the justification of state interventions in the economy in the form of pandemic aid.

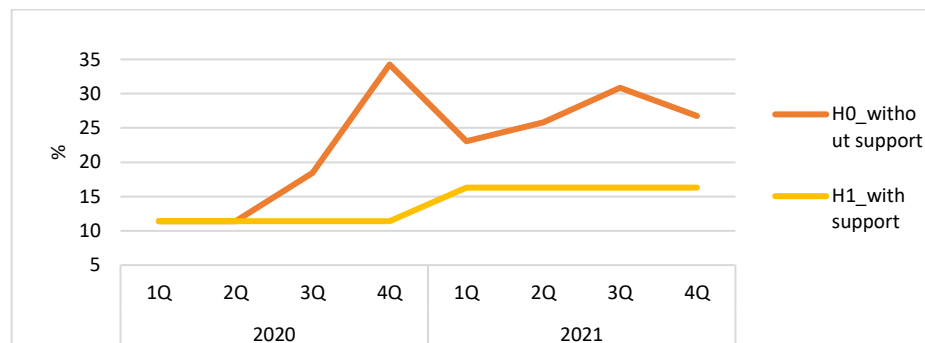


Fig. 1. Estimated development of poverty, Source: processed by author according to data from Slovak Statistical office (2022)

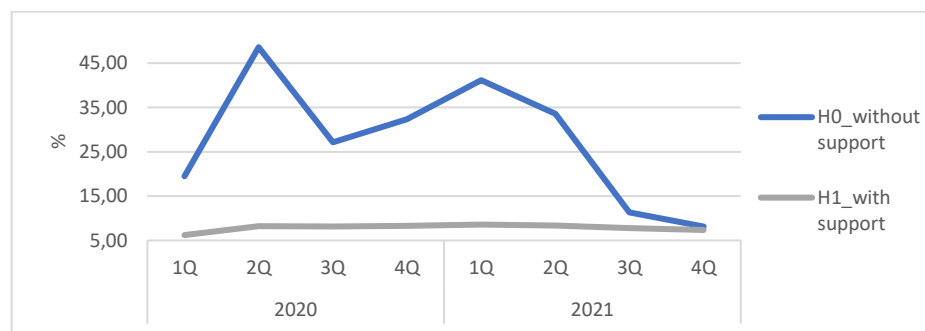


Fig. 2. Estimated development of unemployment, Source: processed by author

If pandemic aid from the state did not come, in this pessimistic scenario, the development of unemployment would increase by 3 to 4.5 times the current unemployment rate, which means that the average value of the unemployment rate in the observed period would be 27%. As for the poverty rate, after taking these two scenarios into account, we got the following results. The poverty rate would increase compared to the officially measured by 4-7%, which represents an increase of a maximum of 360 000 persons compared to the current level of 872 000 persons. Of course, the reality could be different from the extremely pessimistic forecast, so we estimated the reduced-impact scenarios as follows. In Graph No. 4 "Development Scenarios", we estimated the individual measures according to the above-mentioned scenarios No. 3 (65%) and No. 5 (35%) and the results are as follows. In scenario No. 3 (65%), the situation with unemployment would represent 2 to 3.5 times the current unemployment rate, which means that the average value of the unemployment rate in the observed period would be 21%. In scenario No. 5 (35%), the unemployment situation would represent 1.3 to 2.7 times the current unemployment rate, which means that the average value of the unemployment rate in the observed period would be 14%. Graphical representation is given in (figure 3)

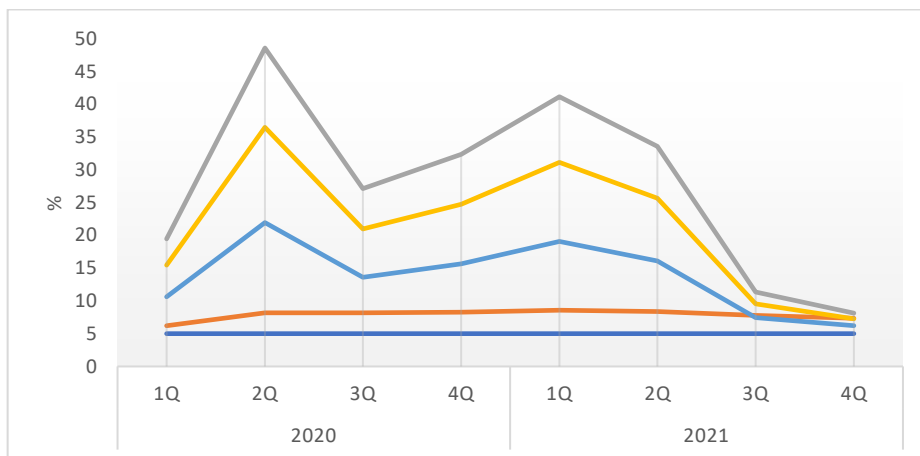


Fig. 3. Unemployment scenarios, Source: processed by author

Regarding the individual scenarios for the poverty parameter, we proceeded as follows. The source data are in table no. 5 and for our chosen scenarios no. 3 (65%) the results are as follows. The poverty rate would increase compared to the officially measured by 2.5 - 4%, which represents an increase of a maximum of 220 thousand. persons compared to the currently measured level of 872 000 persons. In scenario No. 5 (35%) we recorded the following results. The poverty rate would increase only slightly compared to the official measure, it would even decrease slightly in the decline of the wave, but here we need to point out that the official poverty rate is set once a year and therefore our quarterly values distort this result. However, if we take into account the new poverty rate calculated by us of 14.7% with the year 2020 (11.4%), we recorded

an increase of 3.3% there, but we also compare it with the average figure set for 2021 (13.8%). in this scenario, the increase is only 0.9%, which represents about 47 thousand. persons. Graphical representation of this course is expressed in (figure 4).

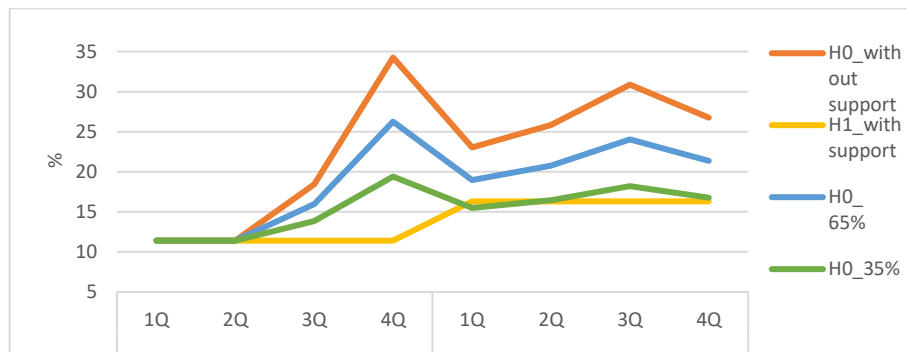


Fig. 4. Scenarios of poverty development, Source: processed by author

5 Conclusion

The results show that the economy and job structure in the Slovak Republic is significantly affected by the pandemic, especially in the area of services, in the absence of state intervention, there would be mass redundancies at the level of 10 percent, in the version of the pessimistic scenario almost 40%. Although this situation would be temporary and could be largely served by the "unemployment insurance" fund, there could be a situation that after the economic recovery, the recruitment process would be lengthy and rigid, e.g. by the fact that employees during the protection period would react sufficiently inflexibly to the needs of the labor market. Therefore, we subsequently confronted our results with the reality on the labor market by looking at the data of the largest job portal in the Slovak Republic profesia.sk. As follows from the fact, the year 2021 was a record year in the number of jobs offers offered, its number was almost 300000. [3] The opinion of the management of this portal evaluated this as a situation where, as a result of an external shock, structural changes occurred in the labor market that have no parallel in history and indirectly described it as the digital age of the labor market. This means deepening globalization in the labor market and introducing teleworking as a new standard. These data are also confirmed by various economic studies. [1] This situation is also confirmed by our analysis, as in the fourth quarter of 2021, the parameters we monitored represent a return to the new normal, the existence of supported places is only in the area of hotels, restaurants and tourism. These are sectors that are still inaccessible to citizens due to pandemic measures, resp. only available in limited capacity. A separate category consists of artists. The results we find should be examined in more detail over time, whether and what changes in the structure of jobs have occurred, what has it brought to individuals and how have they dealt with it in terms of the need for a change in job description? It is necessary to take a closer look at whether the scenarios created by us were well estimated and provided

informative data for comparison in the future, when verified data for the full years 2021 - 2023 will be known. and employees who were actually affected and caused aid or created a negative externality in the form of inadequate aid. In any case, our knowledge is that it was appropriate to provide this support in the given situation, as we avoided social unrest. The state would find it more difficult to coordinate pandemic measures, as individuals could prioritize the need to survive over the risk of infection and loss of health or life, which would exacerbate the pandemic situation. The important question is whether, have we not moved the problem to the future? We will have to repay the funds thus obtained and the pandemic may recur regularly.

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