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CONSEQUENCES OF THE COVID-19 PANDEMIC AND POLICY MEASURES IN THE CZECH ECONOMY: IMPACTS ON LABOUR MARKETS AND HOUSEHOLD INCOMES

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Abstract:

The aim of the paper is present and discuss the consequences of the Covid-19 pandemic and the government´s restrictive measures in the Czech labour market with the focus on the changes in income side of the Czech households, changes in employment, possibilities, and preference of employees to work from home, based on the method of description and statistical analysis. Apart from processed data from the survey using charts, the relationships between gender, age, and form of gainful employment, and the changes in household disposable incomes were examined by using the statistical correlation analysis. Based on this survey in the Czech economy, a statistical correlation was found between the type of gainful activity and the change in disposable incomes, and between the age of respondents and the change in disposable incomes. In contrast to the statistics of the International Labour Organization, in this research the dependence of a significant reduction in the number of working hours and then income according to the gender of the respondents was not confirm statistically. Beside this, the paper includes a change in the employment relationship, the change of amount of work and the change of working place (including the days of home office preferred by the employees) due to the pandemic and anti-pandemic measures. The situation on the labour market is changing and the paper points out certain common and different features of the impact of the Covid-19 pandemic on labour markets and household disposable incomes in the Czech economy and in the world and provides the reader with new macroeconomic statistical data and knowledge.

Key words:

coronavirus crisis, retraining, household incomes, unemployment, Covid-19 pandemic, home office, labour market

JEL: E24, E62, J20, J21

1 Introduction

The ongoing coronavirus crisis changes the determinants of labour markets and work performance across the world. Economists agree that work will no longer be the same as before the outbreak of the pandemic and that labour markets will remain affected significantly. During the coronavirus recession,

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labour markets over the world are suffering a new cause of structural unemployment, with increase in labour losses, mainly due to reduced inflows of foreign labour and eliminated tourist inflow.

According to the Czech Statistical Office (2021) the Czech economy experienced a significant drop in real output of -5.6% in 2020 due to the pandemic This is a deeper slump in comparison with the financial and economic recession when the real product growth rate was -4.7% in 2009. The unemployment rate has been gradually increasing, from 3.1% in January 2020 to 4.3% in January 2021. But at the beginning of 2020, the labour market in the Czech Republic had faced a significant shortage of employees and in the first three months of the year the Czech unemployment rate was one of the lowest in Europe, around 3% (The Czech Statistical Office [CZSO], 2021). After the beginning of the Covid-19 epidemic that broke out in the Czech Republic in March 2020, the unemployment rate started to rise due to the restrictive measures. Cyclical unemployment also began to grow during the 2020, associated with a decline in gross domestic product and the effect of multiplication processes in the negative direction. Economists now are afraid of expected growth in the unemployment rate in the Czech economy as labour markets react with a delay in comparison to production markets and after the end of the government support. However, in the spring of 2021, the unemployment rate fell slightly from 4.3% in February to 4.2% in March 2021, 4.1 % in April 2021, and to 3.9 % in May 2021. indicating increased demand for labour in certain sectors and a modest recovery in the Czech economy (Ministry of Labour and Social Affairs [MLSA], 2021).

Various adaptations in the labour markets and forced quick solutions can be observed to support employment. In 2020, the requirements for retraining at labour offices are also changing, when the coronavirus situation required the inclusion of courses focused mainly on computer skills, obtaining a driving license, including professional competence, and courses for social workers (Labour Office of the Czech Republic, 2021). Mainly in companies there was the need and costs for retraining in the field of digital technologies if their employees could work in home office mode.

Minimizing contact between workers due to the spread of coronavirus has raised economic questions in which kind of profession the homework can be used, while saving on fixed costs for renting buildings and offices or official business journeys in the future due to increasingly efficient communication technologies. Many companies were forced to reduce or stop business, some companies were forced to shut down their business because they did not see an improvement in the future, even in the case of temporary releasing of restrictive measures. The coronavirus crisis has completely disrupted the previous labour market equilibriums and continuing changes can be expected.

As a result of the pandemic, disposable incomes earned by employees and entrepreneurs fell significantly. Work hours have declined due to the pandemic and government restrictive measures around the world. Globally, according to the International Labour Organisation (2021) around a half of working-hour losses are due to employment loss, while the other half can be attributed to reduced working hours, including workers who remained employed but are not working. In total, there were unprecedented global employment losses in 2020 of 114 million jobs relative to 2019 and of that 33 million people are unemployed and 81 million people are employed, but inactive. Labour income loss (before income support) was estimated to US $ 3.7 trillion, or 4.4% of global 2019 GDP and it means a decline of 8.3% in 2020 relative to 2019 (ILO, 2021).

1.1 Theoretical background

So far, many papers have been elaborated and many will be written on the effects of the Covid-19 pandemic on labour markets and employment when this pandemic hit the whole world. The analyses are mostly cross-sectoral, examining job losses, unemployment rates, job vacancy growth in some sectors, employment policy. At the beginning of the pandemic in 2020, a high increase in job vacancies in health and social services was observed. In the United Kingdom, labour markets and the demand for labour within individual sectors were analysed in detail (Dias et al., 2020). Based on modelling method, for example, the effects of the pandemic in individual American states were examined, especially the

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effect of dismissal on the unemployment rate (Bernstein et al., 2020). A large-scale survey of households in the U.S. was conducted and the authors estimated 20 million lost jobs by April 6th, 2020, far more than jobs lost over the entire Great Recession. Many of those losing jobs are not actively looking to find new ones. Participation in the labour force declined by 7% that overcame the 3% cumulative decline that occurred from 2008 to 2016 (in comparison with 2008-9 recession). The survey provides evidence on the decline in employment pointing to a 20 million in the number of employed workers and most of these newly unemployed workers were not looking for new work and were seeking only few work opportunities, so the rate of unemployment was not so high and adequate (Coibion et al., 2020).

The employment implications of the Covid-19 crisis were elaborated with classifying economic sectors according to the confinement decrees of three European countries (Germany, Spain and Italy) and this analysis contains an assessment of the implications of the Covid-19 crisis on labour markets, and also for speculating on mid-term and long-term developments, since the most and least affected sectors were probably going to continue to operate differently until the end of the pandemic (Fana, Torrejon-Perez & Fernandes-Macias, 2020). A study conducted in 199 Nuts-3 regions of Central and Eastern Europe contributed to the impact on the ability of the countries and thus for similar upper middle-income countries to recover from the shock caused by changes in employment due to the Covid-19 pandemic. An equation has been created here that proves that employment from the regions will fully recover within 2 years of the end of the pandemic crisis (Brada et al., 2021). In another source, the focus was on the necessity of active labour policy reform in response to the pandemic unemployment crisis and what trajectory this reform should likely to take as countries shift attention from emergency income supports to stimulating employment recovery (McGann et al., 2020). The reason for the government to support the industries that suffer most during the crisis is that job seekers, the supply side of the labour market, respond by searching less intensively so they search less severely hit occupations, they strategically revise the value of employment attached to the different occupations because of the crisis, especially in relation to their relative health-risk (Hensvik et al., 2021).

The study of small businesses in the U.S. shows that business closure policies are associated due to the Covid-19 pandemic with a 20-30% reduction of non-salaried/inactive workers on the hospitality labour market and business reopening policies play a statistically significant role in slowly reviving the labour market (Huang et al., 2020). Another survey in the U.S. of more than 5,800 small businesses was conducted in spring 2020. The risk of closure was negatively associated with the expected length of the crisis. Businesses had widely varying beliefs about the likely duration of Covid-related disruptions. In the survey, 43% of businesses had temporarily closed, and nearly all these closures were due to the pandemic. Many small businesses were financially fragile (the median business with more than $10,000 in monthly expenses had only about 2 weeks of cash on hand at the time of the survey). Most of businesses planned to seek funding through various support. However, many anticipated problems with accessing the program, such as bureaucratic hassles and difficulties establishing eligibility occurred (Bartik et al., 2020).

And the number of papers dealing with the impact of the Covid-19 pandemic on household incomes and livelihoods is gradually increasing worldwide. It was found that in G. Britain the pandemic crisis and policy measures caused more marked negative effects on the living standards mainly of lower-income families than of higher-income families (Brewer & Gardiner, 2020). Other papers are focused on the inequality in the impact of the coronavirus crisis using a survey, for instance, around half of workers (respondents) was in less paid work than usually (Adams-Prassl et al., 2020a). In the U.S., the effects of the pandemic on the lives of households were described by using the survey research and the focus was on income and job loss and associated impact – lost job and if found other job, health insurance if lost job, use of unemployment benefit (Kapteyn et al., 2020). In less developed countries, the negative impacts are described not only on the economy but also on livelihoods of households (Diao & Mahrt, 2020).

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Another way to examine changes in the labour market is the issue of working from home. As Reuschke and Felstead (2020) mention, the ability to be on home office depends on occupation or sector, skills level and income as well as being profoundly shaped by welfare policies and housing markets. The spatial variation of working at home has received attention as a predictor of the vulnerability of national and local economies to the pandemic crisis. Yet the country-level variation of the feasibility of working at home calls for more attention to fully understand the economic consequences of the crisis. The difficulties of home office during the lockdown are likely to have become more acute with many working adults competing for the same space and resources while also having to provide childcare and home-schooling (Reuschke & Felstead, 2020). From other angle, the demand for labour and vacancies with the possibility of working from home can be examined, across the U.S. (Forsythe et al., 2020). Due to the Covid-19 pandemic, automation is also growing faster and affects the demand for labour, so new perspective on the value of work and recommends how to respond to labour market failures exacerbated by the pandemic and by increased automation are other issues (Chebly et al., 2020). In addition, another bright side of the coronavirus crisis can be an opportunity for many governments to make lasting reforms in some sectors, such as in health sector (Ozili & Arun, 2020).

According to a survey conducted in the Czech economy the coronavirus crisis has affected almost two-thirds of employees and entrepreneurs since March 2020 in some way. Some adults stayed at home in the home office mode and others were forced to take vacations or look after children. About 15% of employees lost their jobs or their shifts were shortened. One-fifth stopped working altogether and could return to work after the coronavirus measures were released. Seven percent of employees in the survey recorded they could no longer return to work after the end of the pandemic. Before the pandemic lockdown, the home office was used by approximately one percent of employees in the Czech economy. With the onset of coronavirus measures, the share increased to almost one fifth (Pravec & Vejvodova, 2020).

According to a survey from seventeen developing countries, 45% of respondents reported that a household member lost their job and, among households owning small businesses, 59% reported that a household member closed their business. Among households with the lowest income prior to the pandemic, 71% claimed that a household member lost their job and 61% reported that a household member closed their business (Bottan et al., 2020).

It can be expected that the Covid-19 pandemic will exacerbate inequalities in the distribution of household incomes across the world. Economists, sociologists, or political scientists have already investigated the role of increasing income inequality as a cause of the 2008-9 recession. After analysing the impact of the 2008-9 financial and economic crisis it was found that the more European households depend on labour incomes, the more they were likely to move downwards in the income distribution and that this does not imply that capital incomes made households, more likely to move upwards (Cirillo et al., 2017). Past events, during last two decades, have led to increases in Gini coefficient (income inequities), the events raised the income shares accruing to the higher deciles of the income distribution, and lowered the employment-to-population ratio for those with basic education compared to those with higher education. The distributional effects of the pandemic are likely to vary considerably across countries, depending on country-specific characteristics, initial income distribution conditions as well as the stringency of containment measures. There is growing evidence that the economic effects of Covid-19 pandemic may also vary between different segments of the population in terms of race, age, and gender. The human cost of the pandemic is also higher in low-income groups that are more prone to diseases and have often more limited access to health services (Furceri et al., 2020)

Worldwide the labour markets are mainly examined by international organisations. So far, seven studies have been published by the ILO, entitled: “ILO Monitor: COVID-19 and the world of work”. The basic variable is lost jobs, as well as, for example, the parameters of unemployment with an analysis of various risk sectors within the world's regions or at the level of individual states. The first and sixth edition point out, among other aspects, to high underemployment and inactivity and a large reduction in labour supply because of government quarantine measures (ILO, 2020a; ILO, 2020f). In the second to

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seventh edition, mainly the effects of the pandemic on workforce, on the reduction of working hours and incomes are analysed in detail. In contrast to the global financial crisis, the COVID-19 crisis has affected labour markets worldwide, resulting in greater job losses and unemployment hikes everywhere – including low- and middle-income countries, which were not hit as hard during the global financial crisis (ILO, 2021). The pandemic crisis caused economic consequences around the world, addressed practically by all international economic organizations, such as the OECD, in the analysis of the change of size and composition of local labour forces or change of jobs geography (OECD, 2020). The International Monetary Fund published, among its other publishing, "Special Series on COVID-19", where the IMF deals with the spending programs of individual governments to support firms and households at the one hand in terms of fiscal affair how to choose proper tools and introduce them and how these tools affect the economy and on the other hand in terms of national accounting (IMF, 2020a; IMF, 2020b).

2 Methods

Quantitative research via an online questionnaire was used for data processing for this paper. A questionnaire survey was conducted in the spring of 2021. The study recruited participants older than 18 years from all regions of the Czech Republic. Participation in the survey was purely voluntary and anonymous.

The survey involved 1,503 adults who were divided by age and gender. By age criterion, there are five age categories: in the 18-29 age category 39.6% of respondents answered, in the 30-39 age category there were 25.9% of respondents, in the 40-49 age category 27.3% answered, in the 50-59 age category 7.2% answered and in the last category 60 and over there was no answer.

By gender criterion, 42% of adult men and 58% of adult women participated in the survey. The research covered all gainful activities. Most of the data were obtained from employees (82.4%) and subsequently from self-employed persons (11.6%) and from others (6%, i.e., partner of a company etc.). The main survey questions were focused on the changes in disposable incomes, their causes, the percentage of loss of earnings and their reasons and the current situation of participants. The employees section provided a section analysing the change in the work environment, including an analysis of the transition to the home office mode due to the pandemic. When using statistical methods, the data set was statistically evaluated in IBM SPSS 27. Nominal and ordinal data types were used in this research.

Survey questions

How did the disposable incomes of Czech households change after the outbreak of the Covid-19 pandemic in the spring of 2020 and during next months compared to the time before the pandemic? What percentage of these changes occurred? How did the pandemic influence the economic situation of employees and self-employed? How many of the respondents had to terminate their gainful employment and how many are undergoing retraining? How did the Covid-19 pandemic affect the number of working hours and the place of work? What are the household's preferences when choosing the working place?

Statistical analysis and hypothesis

The differences between variables gender, form of employment and changes in disposable incomes of Czech households after the outbreak of the Covid-19 pandemic were statistically tested by an independent t-test. The differences between the age of the respondents and changes in disposable incomes of Czech households after the outbreak of the Covid-19 pandemic were statistically tested by the one-factor variance analysis (One-Way ANOVA). The data set was also tested by The Chi-Square Test of Independence and correlation analysis. As part of the Chi-Square test was determined the Cramer's V correlation coefficient. Statistical testing was performed at the 5% level of significance. Here are three hypotheses complementing this research:

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H1a: There is a difference between gender and changes in disposable income of Czech households.

H1b: There is a difference between the age of the respondents and changes in disposable incomes of Czech households after the outbreak of the Covid-19 pandemic.

H1c: There is a difference between form of employment (employees and self – employed) and changes in disposable incomes of Czech households after the outbreak of the Covid-19 pandemic.

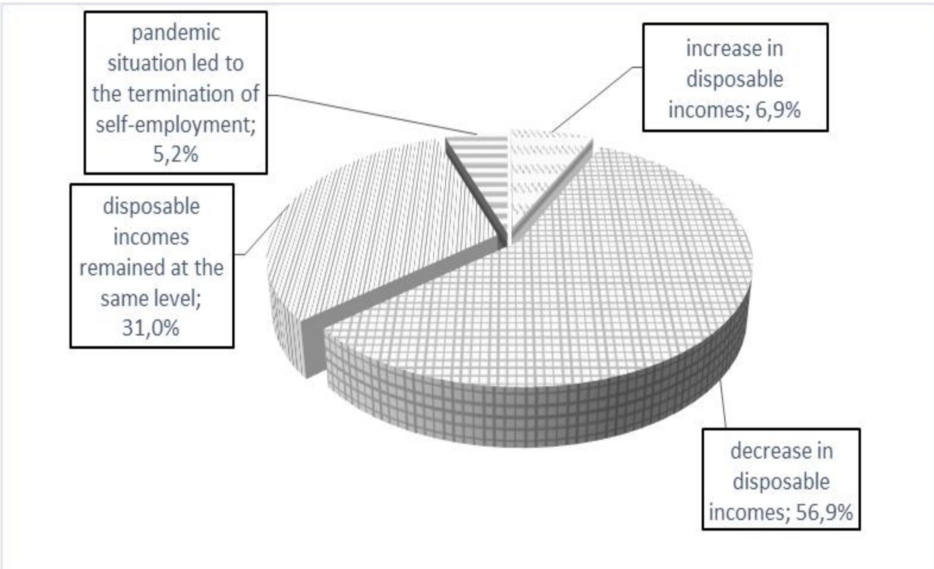
3 Paper results

The survey examined the consequences of the coronavirus crisis on the disposable incomes of employees and the self-employed that is related to the impact of the coronavirus crisis on various sectors of the economy and labour markets. Concurrently, the circumstances and circumstances of performing work are also changing.

Impact of the Covid-19 pandemic on the earnings of self-employed

Of the total number of respondents, 11.6% belongs to self-employed. Based on the survey, it was found that most of disposable incomes, including government support in the form of compensation programmes, decreased. The following Figure 1 shows the impact of the coronavirus crisis on earnings in a sample of the self-employed in the Czech economy. As can be seen, 56.9% of self-employed stated that their disposable incomes fell, 6.9% wrote down the growth, 31% stated unchanged incomes and 5.2% had to shut down/interrupted their business.

Figure 1: Impact of the Covid-19 pandemic on the incomes of self-employed



Source figure: own research

Impact of the Covid-19 pandemic on employees' disposable incomes

For respondents with employment status, it can be expected that the impact of the pandemic has not been so significant as for self-employed.

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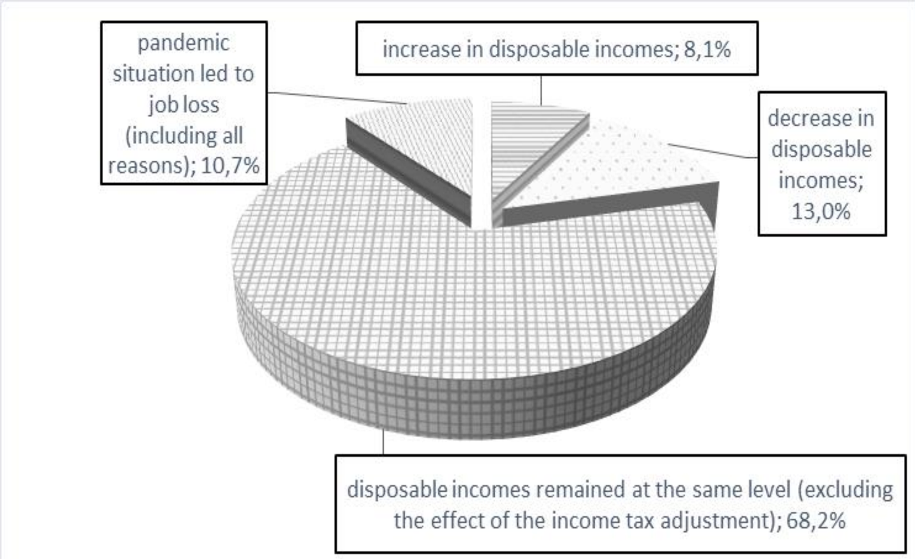
Figure 2: Impact of the Covid-19 pandemic on employees' disposable incomes



Source figure: own research

As the next Figure 2 illustrates, 68.2% of employees did not suffer from changes in disposable incomes. The decrease in income is recorded by "only" 13% of them, but 10.7% of employed lost their job and 8.1% stated the increase in earnings, compared with the situation before the pandemic. In the case of a decrease in earnings, 37% of employees and self-employed recorded that their incomes decreased by 36-55% in comparison with previous earnings before the pandemic, 23.9% of them marked the 26-35% drop of previous earnings, 21.7% reported a decrease of more than 55% and 17.4% recorded a decrease to 25% of previous incomes. The most of these respondents (63%) stated that the main reason for their income reduction was the anti-pandemic government measures. The rest indicated a decrease in demand for production (34.8%) or other reasons (2.2%). In the case of growth in disposable incomes, exactly a half of respondents stated that the increase was up to 25% of previous earnings, 25% stated an increase within the range of 25-45% of previous incomes, 12.5% the range of 45-65% and 12.5% recorded an increase more than 65% of previous earnings. The increase in demand for production played a major role, as recorded by 43.8% of respondents, and the rest mentioned various reasons, including changes of profession or promotions. If the income of employees and self-employees was not affected, 94.8% of them stated that their incomes were not affected by the pandemic and the remaining percentage meant diversification of income sources or the change of employer during the pandemic.

As regards respondents who terminated (interrupted) their business or lost their job, 46.7% of them found a new job outside the main field, 34.7% are registered as unemployed at the Labour Office and are looking for a job in their main field, 12.2% found a job in in their amin field and 6.4% are registered as unemployed and are undergoing retraining. The most of respondents (65.2%) recorded that their loss of earnings was caused mainly by restrictive anti-pandemic measures by the Czech government, 24.5% stated that the main cause was a decline in demand for the company's production and the others mentioned other various causes of income loss.

Czech statistical data from the beginning of 2021 show the negative impact of the coronavirus crisis on small and medium-sized enterprises. In January 2021 23,000 entrepreneurs interrupted their business, that is by 4,500 more than in January 2020 before the outbreak of the pandemic. The sector of administrative activities, where travel or employment agencies are included, has been suffering the most. At the beginning of 2021, it was also mentioned that the trade was established by the lowest number of persons in the last 11 years. Regarding the loss of earnings in individual sectors, the decline is observed mainly in the primary and secondary sectors, namely in agriculture and industry. A lot of

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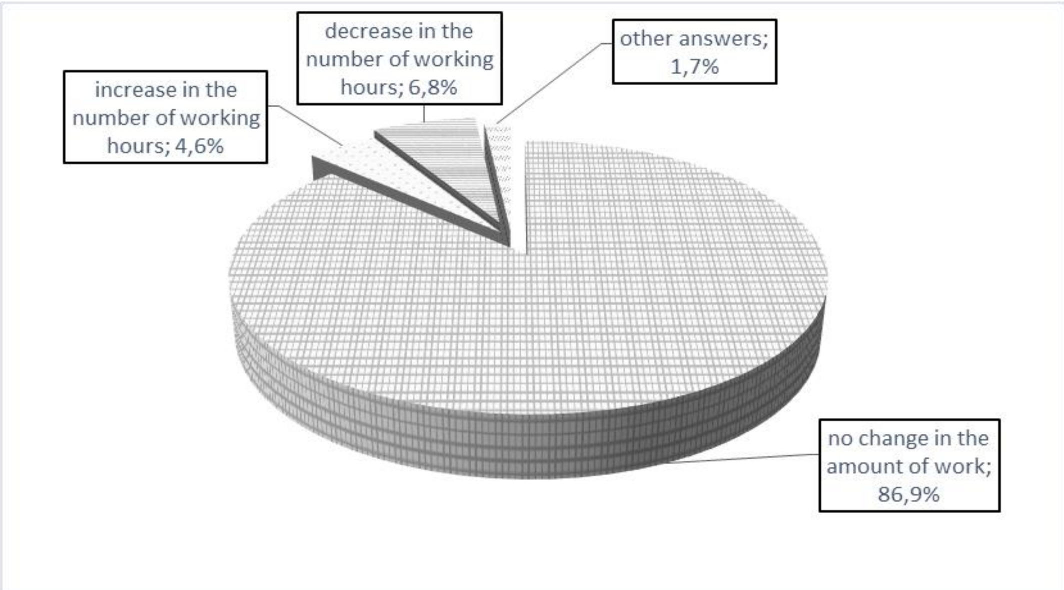
ancillary activities play an important role, as there are agency workers who also work in industries. In the tertiary sector, where the number of employees has been increasing steadily, the number of employees decreased significantly, including transport and storage aggregately (MLSA, 2021).

In 2019, 4,292 job seekers participated in one of the wide ranges of provided retraining courses paid by the Labour Office of the Czech Republic. In addition, another 5,270 people completed the selected retraining. The most frequent retraining courses were courses focused on acquiring computer skills. During 2020, 3,360 job seekers participated in retraining courses paid by the Labour Office of the Czech Republic and another 4,709 people completed the selected retraining. The pandemic situation required that, in addition to computer skills courses, also courses aimed at obtaining driving licenses, incl. professional qualifications and courses for social workers (Labour Office of the Czech Republic, 2021). In the next two years it is expected it will be necessary to retrain at least 100,000 adults due to the Covid-19 pandemic in the Czech economy (Pravec, 2021).

As the Figure 3 illustrates, 86.9% of employees stated that there was no change in their employment relationship, 6.8% recorded a decrease in working hours and 4.6% an increase in the number of working hours during a pandemic. “Other answers” (1.7%) include the transfer of full-time work to an employment agreement, the temporary reduction of working hours during a pandemic or the change of indefinite period employment contract to the term employment one.

Figure 3: The influence of a pandemic situation on a change in the number of working hours



Source figure: own research

Pandemic crisis has affected the place of work and caused the expansion of the home office in the Czech economy. While a half of the respondents (50.3%) with the employee status stated that the pandemic did not affect place of work, 33.1% of them stated that there was a change towards home office for a part of the working week and 16.6% of employees, that is a relatively high percentage, work at home the whole working week. If the number of working hours was reduced (reduction by a maximum of 6 working hours per week) during the pandemic, 87.6% of employees stated that it did not affect the wage and the remaining 12.4% stated that their wage also decreased.

It is possible that the home office will expand in the future, especially if firms have become accustomed to saving part of their costs. According to the survey, 60.5% of employees would choose home office (1 to 4 days per week), 38.6% had to tick work at a workplace and 0.9% of employees prefer working the whole week at the employer´s workplace. It is obvious that 2 days of home office are the most frequent employee's choice here. The differences between the age of the respondents and

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changes in disposable incomes of Czech households after the outbreak of the Covid-19 pandemic were statistically tested by the one-factor variance analysis (One-Way ANOVA). The data set was also tested by The Chi-Square Test of Independence and correlation analysis. As part of the Chi-Square test was determined the Cramer's V correlation coefficient. Statistical testing was performed at the 5% level of significance. According to the Independent T-test when finding the differences between gender and changes in disposable incomes of Czech households (with the P value of 0.554) there is no statistically significant difference between gender and changes in disposable income of Czech households. Hypotheses H1a is **rejected**. Using the ANOVA analysis between the age of respondents and changes in their disposable incomes during the pandemic, changes in disposable income of Czech households with respect to the age are statistically significant. Hypotheses H1b is **not rejected**. Mainly the youngest age group manifested here in connection with the loss of disposable income. As far as the H1c concerned, there is a statistically significant difference between the form of employment and the change in disposable income, thus this result was further analysed. Similar results are also indicated by correlation analysis and independence test. Hypotheses H1c is **not rejected**. And there is a relationship r = - 0.393 between the form of employment and changes in disposable incomes of the Czech households. Regarding the Chi-square test of independence, it can be noted that the relationship between the form of employment and the decline in disposable income is statistically significant. According to the value of the Cramer's V coefficient (0.408), this is not a very close relationship. A greater impact of the pandemic can be seen on the self-employed, whose business was interrupted, and this was reflected in a larger difference in the fall in disposable income compared to employees.

4 Discussion

The pandemic has certainly caused marked imbalances in the labour markets. The worst affected sectors generally are tourism, accommodation and transport for tourists, gastronomy, and the services sector. After a great drop in demand here, earnings fell sharply. According to the Czech Statistical Office (2021), about a quarter of the original employees lost their jobs in the sectors of tourism, gastronomy, and hotel industry. In contrast, demand has grown significantly in fields such as IT, data management, the pharmaceutical industry, e-commerce, where wage growth is expected. New employees are hired also for robotics and automation, therefore, there is a high demand in the electrical industries. Specifically, we must not forget the growing demand and earnings in the field of nanotechnology and medical supplies (CZSO, 2021a).

According to the survey in the EU the totally closed sectors represent around 10% of employment in the EU and there are significant differences by country. The main driver behind this heterogeneity is regional economic specialisation. It was found that some countries account for higher shares of employment in leisure activities, hospitality, personal services, and other sectors that have been strongly hit, but they also have higher shares of self-employment and temporary contracts (especially in the closed sectors), which can compound the negative effects of forceful closures. The countries, in which the shares of essential or "teleworkable" sectors are higher, are potentially less exposed to the negative consequences of the pandemic crisis (Torrejon-Perez et al., 2020). Associated with this there was the need for retraining in digital technologies, especially in the field of healthcare, education, and work in companies. Globally, there is talk about telemedicine, telework and online education (He, W. et al., 2021). It was found in another research that in the forcefully closed sectors within the EU28, the share of temporary employees increased up to 21.6 % in comparison with 14% of total employment before the pandemic. As a result of labour market flexibilization processes occurred in recent decades, in Southern and Eastern countries the proportion of workers with fixed term contracts is higher than elsewhere across all sector categories compared to the other selected countries (Fana, Tolan, Torrejon-Perez et al., 2020).

During the Covid-19 pandemic, earnings and working hours have been declining, some workers had to stay inactive, and unemployment has risen. According to the International Labour Organisation

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(2021), working-hour losses were approximately four times greater in 2020 in comparison to the global 2008-9 recession. On a global scale, around a half of working-hour losses are due to employment loss, while the other half can be attributed to reduced working hours, including workers who remain employed but are not working. In total, there were unprecedented global employment losses in 2020 of 114 million jobs relative to 2019 and of that 33 million people are unemployed and 81 million people are employed, but inactive. Labour income loss (before income support) was estimated to US$3.7 trillion, or 4.4% of global 2019 GDP and it means a decline of 8.3% in 2020 relative to 2019. Worldwide, for 2021, a half drop in earnings is expected. Compared with the no pandemic trend, the global employment loss is projected to decline from 144 million jobs in 2020 to 68 million in 2021 (ILO, 2021).

The global labour force survey data confirm a deteriorating employment situation for women and the increasing youth unemployment, so the decline in employment has been significantly higher for women than for men and for 18-29 aged (ILO, 2020d; Lee et al., 2020; Joyce & Xu, 2020). The relationships between gender and change in disposable incomes of Czech employees and own workers was not confirmed in the statistical analysis here but there was slight correlation between age of respondents and their change in disposable incomes. The questionnaire survey in this paper covered age categories from 18 years and did not include any person over 60 years of age. It can be said that the pandemic affected more the 18-29 aged in the Czech economy. And it depends much on the sector, type of employment contract and gainful activity. Based on statistics from the Czech labour offices, the registered unemployed are rather older potential workers than young people and most of these older subsequently apply for retraining, and for instance, the average age of job seekers was 42.9 years in March 2021. Nevertheless, the unemployment of young people under the age of 24 is beginning to show in the Czech economy. Their number increased by 30% in March 2021 in comparison with the number in March 2020. Due to the pandemic, mainly graduates of apprenticeships did not have the opportunity to undergo sufficient experience in companies within their teaching programme (MLSA, 2021). According to the data from the survey in the U.S. and Great Britain negative consequences of the lockdowns are particularly harsh for younger workers, those with unstable employment relationships and lower labour income. The authors of this survey research call for a quick response from governments in the form of stimulus and labour income replacement packages (Adams-Prassl et al., 2020b).

The survey research in this paper did not show that there is relationship between the decrease in disposable incomes and the gender of respondents and unemployment by the gender has not been appeared significantly in the Czech regions according to the Czech Statistical Office (CZSO, 2021a). According to the International Labour Organisation (2020), women's employment is at greater risk than men's during the pandemic crisis, particularly due to the impact on the service sector. But women account for a large proportion of workers in front-line occupations, especially in the health and social care sectors. Moreover, the increased burden of unpaid care brought by the crisis affects women more than men (ILO, 2020e).

In survey research in this paper, there was found a correlation between the form of employment and the change in disposable income. The economic situation deteriorated significantly for the self-employed. According to the International Labour Organisation (2020), taking together employers and self-employed, around 436 million firms in the hardest-hit sectors worldwide have been still facing high risks of serious disruption. More than half of these, about 232 million, are in wholesale and retail trade. Self-employed represent 45% of employment in this segment. Self-employed and small firms together account for more than 70% of global employment in retail trade and nearly 60% in the accommodation and food services sector (ILO, 2020c). For example, according to the survey in the UK, the self-employed have been hit particularly hard by the Covid-19 crisis, with approximately three quarters reporting less work in April 2020 than usual, the largest reductions in self-employment hours and income are among lower-income, older individuals without employees (Blundell & Machin, 2020). According to another survey in the Czech Republic, it was mentioned that earnings overall fell by a fifth of Czechs (Pravec, 2021). This statement means the decrease by all Czech gainfully employed, in this survey research the impact of the coronavirus crisis was divided into impact on self-employed and

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employees. It was found that while there was reported a higher percentage of declining incomes by self-employed, a higher percentage of employees lost their job. Nowadays the most important for employees is full time job in a stable employment environment.

A lot discussed issue is home office and its availability. The share of jobs that could be performed at home is an important input for predicting the economy's performance during the social distancing due to the pandemic. According to a survey research in the U.S., it was found that 37% of jobs can be performed entirely at home, with significant variation across cities and industries. These jobs typically pay more than jobs that cannot be done at home and account for 46% of all wages. And applying occupational classification to 85 other countries revealed that lower-income economies had a lower share of jobs that can be done at home (Dingel & Neiman, 2020). According to next research, work at home depends on educational degree of employees in the country´s economy. According to a survey in the Netherlands it was found that total working hours decline and more so for the self-employed and those with lower educational degrees. The education gradient appears, because workers with a tertiary degree work a much higher number of hours from home. The strength of this effect is dampened by the government defining some workers to be essential for the working of the economy (Gaudecker et al., 2020). According to a survey in Ireland, 47% of the sample has a high potential for remote work and 5% of the sample has a low potential for social distance, and those who commute by car have a relatively high potential for remote work but are again less likely to they will be able to distance themselves from society at their workplace. This research considers the importance of the home office for the environment in the future (Crowley et al., 2021). If there is no possibility of working from home, workers bear the burden of social distancing policy, and this bearing systematically differs across the types of occupations. According to a survey research in the U.S., workers in occupations that are most likely to be affected – those with a low score in the work from home measure, or a high score in the measure of personal proximity are predominantly characterized by traits associated with the more economically vulnerable. These workers are disproportionately less educated, have limited healthcare, are toward the bottom of the income distribution, and have low levels of liquid assets (Mongey et al., 2020).

According to the survey in the Czech economy, the social contact and the work environment are important and would be lacking in the case of home office. Practicable home office is preferred only ones or twice a week by the Czech companies according to a survey (Pravec, 2021). There is the match, because 2-day work at home per week scored the highest percentage in the survey.

5 Conclusion

We thought the recent 2008-9 recession caused bad times – drop in output, incomes, and high rate of unemployment, but we did not yet know what will happen to economies in 2020. Labour markets have been shaken around the world. Aggregately, earnings have been declining, employees inactive and a lot of workers lost their job, and companies had to shut down their business. Notwithstanding, the pandemic shook labour markets differently, in some labour markets there was an increase in labour demand, and the economists agree the work will no longer be the same as before the outbreak of the pandemic.

This paper examined how the Covid-19 pandemic and policy measures have affected the aggregate labour market and mainly disposable incomes of Czech households. The survey on a sample of the population of the Czech economy showed a change of employees´ and self-employed´ incomes. According to the results, the own workers were hit more by the pandemic. Labour markets have experienced shocks, labour supplies and demands have changed, so the survey focused on all changes in household income. Due to these changes on labour markets, the demand for retraining also changed in favour of the jobs required by the pandemic.

Further, the focus in this paper was aimed on the influence of a pandemic situation and anti-pandemic measures on a change in the employment relationship, on the change of amount of work, on a change of working place, including the days of home office preferred. Most employees did not notice

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a change in the number of working hours during a pandemic, one third of them recorded a change towards home office for a part of the working week and the most preferred is to work at home at best two days of week.

The relationships between the gender, age, types of employment and changes in disposable incomes of Czech households after the outbreak of the Covid-19 pandemic, in comparison with the time before, were statistically tested. The relationship between the gender and change in disposable incomes was not found. The relationships between the type of employment and changes in disposable incomes and between the age and changes in disposable incomes of the Czech households were statistically confirmed. This research was further complemented by important statistical data from the international organizations that underline the serious global consequences of the Covid-19 pandemic on labour markets and household incomes. Other related possibilities of research could be indebtedness of households, inequality in income distribution, company indebtedness or internal debt relief of the state.

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