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# Impact of European Union Social Policy during Pandemic on Household Income

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Keywords: social policy, household income, regional income disparities, comparative analysis, social risks ABSTRACT

The paper aims to analyse the impact of economic and pandemic crises on household incomes in the context of European social policy. Specific regional socio-economic indicators are analysed for the period 2000-2021. The main objective of this research is to quantify the regional socio-economic aspects and to carry out a comparative analysis related to vulnerabilities due to the economic and pandemic crisis in household incomes. Reported data at European level will be integrated using the panel-data method and national trend differences will be analysed to identify disparities and establish the overall European welfare profile.

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## 1. Introduction

At European level, the issue of social security is a significant approach supported by European policies, the effects of which have been seen at the level of increased spending on social protection and at the level of social assistance programmes, the scope of which is aimed both at increasing the well-being of the population and at preventing and combating the risks arising from poverty.

In figures, according to Eurostat (Eurostat, 2022d), at EU27 level in 2020, the level of expenditure on social protection ranged from 10% to 22% of GDP, being targeted on areas such as prevention of illness and disability, ensuring the survival of European citizens, combating unemployment, combating social exclusion, providing social protection, supporting the elderly, supporting families and children, ensuring housing conditions and developing R&D in social protection.

Statistically, the largest budgets relative to GDP were allocated by France, Italy, Finland and Austria. At the other end of the scale, low social budgets relative to GDP were allocated in Ireland, Malta, Hungary, Cyprus, Latvia and Romania.

According to the OECD, social services cover general public services to protect citizens, health services for people at risk of poverty and social services to provide the conditions for a decent living.

At EU level, government allocations for social protection are graphically represented in Figure 1 (Eurostat, 2022c).

From the social point of view, European policies focus on the European pillar of social rights, which aims to respect the social rights of citizens on the basis of a number of 20 principles that concentrate the European doctrine on equity, inclusion and social rights (Comisia Europeană, 2017).

The 20 principles refer to education, vocational training, equal opportunities and gender equality, and active support for employment. They bring together the goals of "equal opportunities and equal access to the labour market".

In this chapter, the European Commission has developed several instruments on household income support, such as:

- European Skill Agenda, which aims at developing skills to strengthen sustainable competitiveness (in relation to the European Green Deal), ensuring social fairness to implement unrestricted access to education in the European space and building resilience as a response to crises such as the pandemic (European Commission, 2016, 2020);
- Active support for employment, in which case the European Commission has developed the Youth Employment Support Strategy. As a result, the youth unemployment rate has decreased from 25% in 2013 to 15.4% in 2020 (Comisia Europeană, 2022);

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• Safe and adaptable workplaces based on fair and equal treatment, ensuring access. In direct connection with this principle are permanent forms of employment and flexibility in work. This principle has led, from December 2021, to the implementation of a directive on improving working conditions for work on platforms (Comisia Europeană, 2021);

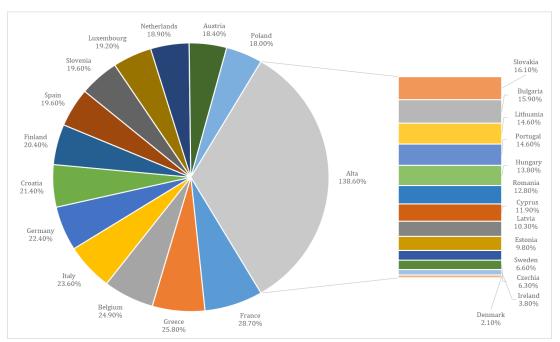


Figure 1. Share of government allocations to social protection in the EU in 2020 (% of GDP)

\* there are no data reported by Malta.

Source: Author based on Eurostat data (Eurostat, 2022c)

- The principle on wages requires that the level of wages should ensure a decent standard of living, subject to the setting of adequate minimum wages in each Member State. The European Commission proposed a directive on adequate minimum wages to reduce employee poverty in October 2020 (Comisia Europeană, 2020);
- Information on employment conditions and redundancy protection. Employees have certain rights prior to dismissal, including reasonable notice and access to some impartial mechanisms for resolving employment disputes (Comisia Europeană, 2017);
- Unemployment benefits. The principle that unemployed people in the EU are entitled to adequate activation support for reintegration into the labour market (Comisia Europeană, 2017);
- The minimum income means that any European citizen who does not have sufficient resources for a decent living should benefit from a minimum income to ensure that this situation is overcome. (Comisia Europeană, 2017);
- Income and pensions for the age limit, ensuring resources for a dignified life (Comisia Europeană, 2017); In this context, the main objective of this paper is to analyse the income dynamics of European households in a pre- and post-pandemic context.

#### 2. Literature review

There is no doubt that European social policy in a pandemic context has aroused and continues to arouse major interest among specialists. In this context, the impact of European social policy on household incomes varied across Member States.

From a practical point of view, disparities in household income across the EU are also influenced in the view of Kukk et al. (Kukk et al., 2020) by under-reporting of income by the self-employed relative to employees. The authors apply the Pissarides & Weber expenditure method and conclude that Southern and Eastern European Member States do not follow closely the reporting of these revenues. As a result, household income ratios between these countries and those in northern Europe vary between 10% and 40% and are not influenced by the level of development of the countries.

In analysing the incomes of housewives, other researchers start from the particular contributions that the two husbands make to income. According to the authors Grow & Van Bavel (Grow & Van Bavel, 2020), men's contribution to household income is traditionally higher than that of women. The analysis covers 27 European countries, and the authors conclude that inequalities in men's and women's average incomes lead to disparities in their contributions to household income. However, this approach excludes situations where some women's incomes are higher than those of their husbands.

In the context of the COVID-19 pandemic, household incomes were supported by some direct cash transfers. Authors such as Drescher et al. (Drescher et al., 2020) use data from the Eurosystem Household Finance and Consumption Survey (HFCS) to determine the share of household expenditure made from these transfers. The results of the analysis show that households spend between 33% (in Netherlands) and 57% (in Lithuania) of such a transfer. This is despite the fact that respondents' response options varied between 0%, 50% and 100% of the value of the financial transfers.

Household incomes in direct relation to population health and food security are analysed by authors Penne & Goedemé (Penne & Goedemé, 2021). The authors believe that insufficient household incomes and inadequate minimum income policies restrict the European population's access to a healthy diet. The study covers 24 European countries and highlights that in 16 of these countries 10% of the population in (sub)urban areas face income-related food insecurity.

Household income disparities during the pandemic are examined by the authors Clark et al. (Clark et al., 2021). The authors draw on panel data from the COME-HERE survey covering France, Germany, Italy and Spain. The authors point out that, during the pandemic period, government compensation was directed to the poorest, implying that, on average, income gaps decreased in these countries. The worst affected was Italy, where the welfare of the population has declined significantly.

The analysis of household income based on EUROMOD (European Tax and Benefit Calculator) and its harmonised datasets is carried out by the authors Sologon et al. (Sologon et al., 2021). The authors consider several macroeconomic indicators related to tax-benefit systems, employment, labour and financial market returns, and demographic composition and define a dedicated model. The model is applied for comparative analysis of household incomes in the UK and Ireland.

Other authors such as Fialová & Mysíková (Fialová & Mysíková, 2021) quantify the impact of unequal income distribution on poverty and household income inequality. The analysis is carried out using a collective consumption model applied to the economies of the Visegrad Group (V4). The official EU-SILC data covers the statistical period 2013-2018. The results of the analysis show that females cover a share of 40-60% of household consumption, and this share may increase with the contribution to household income.

The pandemic crisis has had a devastating impact on household incomes in the EU as a result of rising unemployment, isolation measures and a general reduction in the level of economic activity. In this context, monetary compensation schemes aimed at compensating employees and self-employed workers for their reduced economic activity used at national level have become essential for household incomes. This process is analysed by Christl et al. (Christl et al., 2021), who make use of the EU micro-simulation model (EUROMOD) implemented at the 2020 level in the context of defining two alternative scenarios (the first, in which transitions to unemployment and/or monetary compensation schemes did not occur, and the second, in which transitions did occur). The main conclusion of the analysis is that fiscal policy measures have not only mitigated the negative trend in household incomes in the EU and reduced income disparities and poverty risk.

Household mortgage debt is another area of analysis. In this context the authors Johnston et al. (Johnston et al., 2021), consider that this debt is the result of the interaction of labour market institutions and mortgage finance institutions governing household credit. In order to conduct this analysis, the authors use a panel analysis covering 17 countries. The main conclusion of the analysis is that the two categories of institutions have a co-dependent impact on household debt.

The impact of the pandemic on increasing household income vulnerability is studied by the authors Midões & Seré (Midões & Seré, 2022), who use European Central Bank data from the Household Finance and Consumption Survey (HFCS) for 7 EU Member States. On average, the rate of the financially vulnerable population is 19.3%, but the disparities between states are extremely wide. The authors propose to national decision-makers additional employment protection measures, suspension of rents and mortgages.

The economic downturn has also taken its toll on household incomes in the EU. A study realised by Lichner et al. (Lichner et al., 2022) quantifies in this sense the cross-regional income imbalance of households in Slovakia based on two indicators: nominal ordinary income and discretionary income, which takes into account consumption of basic necessities. The statistics come from household budgets and cover the period 2004-2012. The authors conclude that income and consumption need to be jointly assessed in order to evaluate regional economic imbalances and to help policy makers adopt appropriate policies capable of reducing household income disparities.

The impact of the pandemic on household incomes must be seen in conjunction with the impact of government measures to protect the population. In this context, the authors Cantó et al. (Cantó et al., 2022) focus their attention on four European countries heavily affected by the pandemic: Belgium, Italy, Spain and the United Kingdom, in relation to the relative and absolute level of household welfare resilience in these countries in the pre- and post-pandemic period. The analysis uses statistical data from the European System of Taxation and Fiscal Benefits (EUROMOD), household surveys and point labour market data. The authors conclude that while household poverty increased during the pandemic period, income inequality remained broadly the same.

The same issue is addressed by the authors Christl et al. (Christl et al., 2022), who link household disposable income in the pandemic period with household demand based on the same data source (EUROMOD). A first conclusion of the analysis is that the impact of the pandemic on household incomes varies between Member States. The second conclusion is that protective public policies (fiscal, monetary compensation) have softened the shock of the pandemic's impact on household incomes.

An extremely interesting analysis addresses the connection between poverty, educational attainment of individuals, household income and political violence. Authors Zohar et al. (Zohar et al., 2022) conduct a survey of 12 member states, with data processed using logistic regression models with interaction terms. The authors conclude that political violence is more prevalent in countries with lower levels of contextual poverty and among individuals with average levels of education.

The literature review is an additional argument in favour of the present scientific approach.

## 3. Methods

Using the analysis of frequency series distributions, we propose to conduct a study of household income based on the following *working hypotheses*:

H1. Under normal economic conditions, the incomes of European housewives tend to grow by at least 50% of the rate of economic growth. This hypothesis is also supported by research carried out by the authors Grow & Van Bavel, Kukk et al. (Grow & Van Bavel, 2020; Kukk et al., 2020).

H2. The impact of economic crises has the amplifying effect of increasing the poverty of the population through the combined effects of unemployment and inflation. The hypothesis is defined in the context of the results of the authors' analyses Fialová & Mysíková, Johnston et al., Lichner et al., Midões & Seré (Fialová & Mysíková, 2021; Johnston et al., 2021; Lichner et al., 2022; Midões & Seré, 2022).

H3. Under pandemic conditions, the demographic structure of the population significantly influences the impact of declining household incomes. Research results by authors Cantó et al., Christl et al., Clark et al., Drescher et al., Midões & Seré (Cantó et al., 2022; Christl et al., 2021; Clark et al., 2021; Drescher et al., 2020; Midões & Seré, 2022) support this hypothesis.

The analysis is based on Eurostat reports on household income levels at EU level, supported by the following economic indicators:

- Real GDP growth rate volume (Eurostat, 2022j);
- Compensation of employees (Eurostat, 2022a);
- Final consumption expenditure of households and non-profit institutions serving households (Eurostat, 2022b);
- Income of households (Eurostat, 2022g);
- Household saving rate (Eurostat, 2022f);
- Adjusted gross disposable income of households in real terms per capita (Eurostat, 2022h).

Reported data at European level will be integrated using the panel-data method and national trend differences will be analysed to identify disparities and establish the overall European welfare profile.

## 4. Results and discussions

Analysis of the data reported by Eurostat shows that between 2000 and 2021 the level of purchasing power of European households increased from 1.8% to 2.7%, with the highest growth rate recorded between 2000 and 2001 (+1.1%), while the biggest decrease occurred during the financial crisis (2012, -1.3%).

Developed Member States such as Germany and France recorded trends slightly above the general average (France), while the German model showed larger seasonal disparities, in particular in the period 2000-2002, when the level of variation was negative (-1.3% compared to -0.5% at EU level).

In 2021, Germany slowed down its household income growth trend to 0.5% compared to the European average of 2.7% or the French average of 2.6% (see Figure 2).

The study concludes that the German economy (the engine of the European economy) shows a higher vulnerability of its population in times of economic or health shocks, mainly due to the structure of its ageing population.

At the level of the Nordic Member States, a position above the European average of household incomes was observed throughout the pre-pandemic period, with the exception of Finland, which since 2014 has been on a negative trend of decreasing incomes, the pandemic period implying a destabilizing effect on household incomes in this region.

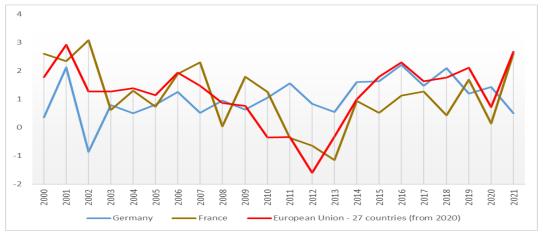


Figure 2. Share of government allocations to social protection Germany vs France, 2000-2021 (% of GDP)

As a result, the three countries recorded averages below the European average: Denmark 0.4%, Finland 1.6% and Denmark 2.6% (see Figure 3).

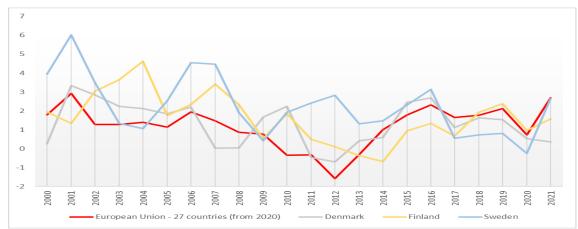


Figure 3. Share of government allocations to social protection in Finland, Sweden and Denmark, 2000-2021 (% of GDP)

We conclude that at the level of the Nordic countries the vulnerabilities of the pandemic have had the impact of the decrease in household incomes against the background of measures to combat the spread of the disease which have led to blockages of economic activities in these countries. Note that Malta and Romania did not report data on this indicator.

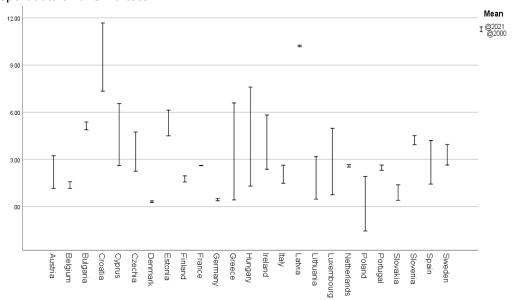


Figure 4. Overview of household income disparities at EU level, 2000-2021 (%)

At European level, the overall picture of developments between 2000 and 2021 is shown in Figure 4. From Figure 4, it appears that at EU level there is a large disparity in the evolution of household incomes. For some countries such as Poland, the initial values are negative. The other Member States show a better situation, but the disparities between them are significant.

On the other hand, only 17.5% of the EU27 population benefited by an increase in household income in 2021 compared to 2020 (Eurostat, 2022i). Italy and Greece faced with the lowest percentages of the population who acheieved greater income (4.9% and 6.9%), while Sweden (32.3%) and Czechia (34.8%) succeeded in having the greatest percentages for this indicator. This increse in the household income supports the hypotesis H1. Under normal economic conditions, the incomes of European housewives tend to grow by at least 50% of the rate of economic growth (see Figure 5). There are not available data for Hungary.

On the other hand, 16% of the EU27 total population faced to a decrease in the in household income in 2021 compared to the previous year. Across the EU Member States, the worst situations were in Cyprus, Greece and Latvia (more than 24% of total population). This evolution is a result of the economic crisis and supports the hypothesis H2. The impact of economic crises has the amplifying effect of increasing the poverty of the population through the combined effects of unemployment and inflation (see Figure 5).

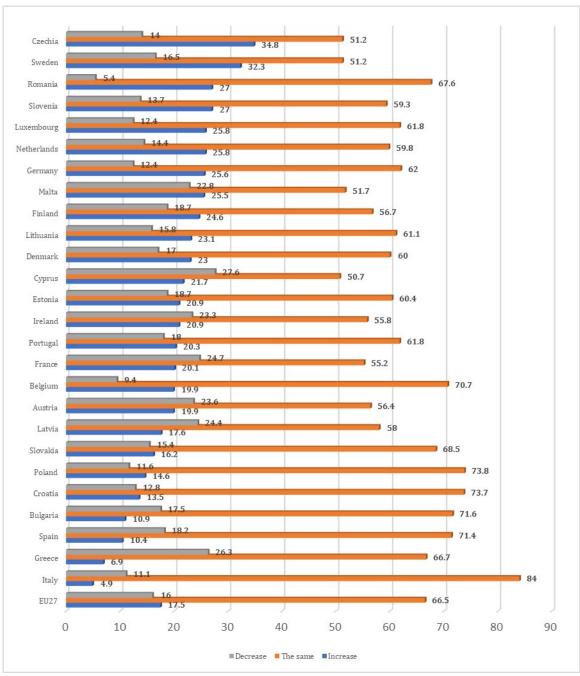


Figure 5. Household income disparities at EU level, 2021 (% of total population)

The COVID-19 pandemic affected the household income greater. As a result, the national decision factors implemented financial support schemes in order to protect population at-risk-of poverty. This population varies between 1.9% of total population in Hungary to 46.1% of total population in Belgium (Eurostat, 2022e). Population at-risk-of poverty represents an important vulnerability for all Member States. This evolution at EU27 level is a demonstration of our hypotesis H3. Under pandemic conditions, the demographic structure of the population significantly influences the impact of declining household incomes (see Figure 6).

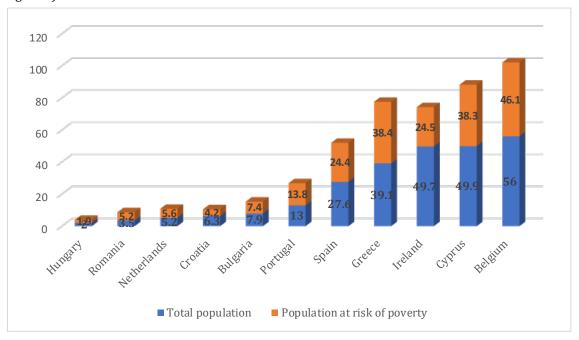


Figure 6. Household that received financial support from COVID 19 support schemes, 2021 (% of total population)

Figures 5 and 6 illustrate an interpretation of the results of hypothesis testing. They point out that the economic crisis and the pandemic had a huge impact on the household incomes across the EU27. Moreover, the regional disparities regarding household incomes increased in 2021 compared to 2020.

# 5. Conclusions

The objectives of the research were to study the dynamics of regional disparities in household incomes over the period 2000-2021 and to make a comparative analysis of Member States in terms of the vulnerability of these incomes.

The objective has been achieved, with the authors producing an evolving picture of disparities by country group. From a methodological point of view, the authors conducted a comparative approach to household incomes at the regional level which confirmed the working hypotheses supported by the literature in terms of risks affecting the stability of household incomes in times of economic and pandemic crises.

We appreciate the study as being innovative, impactful in the current context, useful for supranational decision-makers to achieve the proposed objectives. In this context, the supranational decision makers can use the results of this analysis in order improve their policies regarding social protection of the householders. On the other hand, the same decision makers can observe the dimension of the real disparities regarding the regional household incomes and can adopt the best solutions in order to decrease them. Last but not least, this approach gives an overview of the new challenges for European social policy in the context of current economic, pandemic and geo-strategic vulnerabilities.

The limitations of the study are the relatively small number of analysed indicators and the short statistical period of time covered by the analysis. We are convinced that further analysis of this research theme will be much more extensive in terms of number of indicators and time period.

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