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INEQUALITY OF INCOME DISTRIBUTION IN EUROPE

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Abstract: *Internationally, too many countries pursue moderate wage policies with the risk of shrinking the growth of the world economy, but increasing incomes is a necessary measure to maintain an adequate standard of living. In 2015, the gap between the average income inequality of the European Union (5.16) and of Romania (8.32) was at the highest level (3.16), of all the studied period (2007-2023). Starting from 2019, the income inequality index in Romania began to decrease to 7.08, then in 2020, it reached 6.62 and 5.83 in 2023, reducing the gap with the European Union level which was 4.76 in 2023. At the same time, for 2023, in the ranking of the top five countries with the highest index of inequality of income distribution, Bulgaria has the highest rate of inequality of income distribution with 6.61, followed by Lithuania with 6, 32, Latvia with 6.32, Romania with 5.83 and Portugal with 5.60. Between 2016 and 2024, the minimum monthly gross wage in Romania increased by 320%, from 232 euros/month to 743 euros/month.*

Keywords: *income inequality, monthly national minimum wages*
JEL Classification: *D39, D63, E24, E25*

1. Introduction

In the labour market, the vulnerability given by the inequality of income from wages is a transitory state, determined by the strategies of the respective country, by the level of economic development, by certain events that influence the level of poverty. The European Commission (2010) promotes equality and social inclusion so that society can benefit from equal opportunities in the field of work. Economic inequality among people in many countries is very high and, in many cases, has been increasing, compounded by overlapping inequalities in health, education and many other dimensions. However, economic inequality is not increasing everywhere, and in some countries, it has decreased or remained stable.

This study examines the evolution of income inequality in the European Union and, in particular, in Romania, and the influence of the increase in the monthly gross minimum wage in balancing income inequality for the period 2007-2023. Globally, there are large differences across countries and over time, showing that high and growing inequality can be limited and the extent of inequality today is something we can change (Hasell, 2023).

2. The history of the study of income inequality

In the last twenty years, there has been a resurgence of interest in the long-term evolution of the distribution of income and wealth, and a vast literature has resulted from this. The basis of this type of specialized literature is the pioneering work of Kuznets in 1953 and Atkinson and Harrison in 1978. This line of research resulted in other works by those researchers and of others such as Piketty in 2001 and 2003, Piketty and Saez in 2003, two papers by Atkinson and Piketty in 2007 and 2010, also Atkinson et al. in 2011 and Alvaredo et al. in 2013.

These studies generated a large volume of data, which represented a research resource for various further international analyses. They were also a source of information for the public debate on income inequality for many researchers, among whom we mention Lamarche, Oehler, and Riobóo (2020) and Joe Hasell and others (2023).

There are specialists who argue that an integrated analysis of the economic well-being of households is needed to measure economic performance and progress (Stiglitz et. al., 2009), by correlating three indicators, income, consumption and wealth to better understand material living standards and their sustainability over time (Fisher et. al., 2021 and Balestra et. al., 2018).

In the United States, after the 1970s, the increase in wage income inequality was driven by a nearly 50% increase in the pay gap between the lowest-paid 10% and the highest-paid 10%. According to Piketty (2014), in order to understand inequality as it exists and redistribution as it could be, we should give up the idea of a world in which work is supposedly homogeneous and instead analyse the formation of income inequality.

One of the explanations of labour income inequality is based on the different contributions to productivity, as a result of work in various positions in an organization. The theory of human capital (Becker, 1964), which is viewed with hostility, is based on the difference in productivity and the importance of each employee's work, which is measured mechanically as the inequality between two human beings and which leads to inequality of wages, with direct implication in inequality of conditions of life.

So, human capital is characterized by different capacities to contribute to the production of goods and services demanded by consumers, at different levels, and this determines different wages. In the past year, most developed countries have used analyses of material standards of living data on household incomes (Hasell et al., 2023).

3. Historical wage inequalities

In developed countries, the average wage in 1990, compared to 1870s, is 10 times higher, based on increased productivity, due to technological progress and skills, producing 10 times more (Piketty, 2014). At the same time, in the long term, the increase in labour productivity also led to an increase in the purchasing power of employees.

At the base of wage inequalities is also the qualification gap through which labour productivity is lower in underdeveloped countries. Implicitly, the average purchasing power is 10 times lower than in developed countries, and also the imbalance between labour demand and supply for different levels of capital human, especially after the 1970s.

In the United States, since the beginning of deindustrialization, that is, since the end of the 1960s, high qualifications in computer science, communications, for services related to enterprises are encouraged and better paid. At the same time, there is the largest part of the population, which does not have these qualifications and is involved in sectors with low productivity, such as services for individuals, in public food or commerce, or even unemployed. Concerns about rising income inequality in the United States over the past three decades have focused on rising wages for skilled (educated) workers, attributed in varying proportions to technological change and globalization (Alvaredo et al., 2013).

4. Equality is best for everyone

There are studies in the literature that show that equality is good for people (Wilkinson and Pickett, 2010). The study demonstrates that income inequality is not good for anyone, neither for the poor, nor for the rich, nor for society as a whole. With the goal of aggressively driving economic growth, inequality has increased, but it is surprising to note that its impact has generated an aggravating condition for everyone.

For many years, by general political agreement, regardless of party orientation, left or right, a high degree of income inequality has been accepted as necessary to promote economic growth, seen as the main driver of positive social change. The deepening of income inequalities over the years has shown that it is necessary to redistribute the benefits of economic growth to the advantage of the poor.

Income inequality causes damage to society as a whole, leading to an increase in public service expenses. All things considered, there is a lack of benefits, but also an increase in suffering (Fischer, 2018, Hasell, 2023). There are initiatives that concern the reduction of inequality in public health social assistance services, but they are not constant and do not achieve their fundamental goal. Social or health problems (mental illness, school failure or drug use) addressed in the same conditions, especially for the poor, lead to solving the current health problems, but do not reduce the inequalities that generated this state of affairs and problems which the socio-economic disadvantages produce.

5. The evolution of income distribution inequality in European Union

At the international level, there are several methodologies by which the inequality of labour income is calculated. The 20:20 technique (the ratio of wage incomes of the highest paid 20% of employees to those of the lowest paid 20% of employees) is considered relevant by some economists because it correlates better with measures related to human development and social stability, which includes the index of well-being among children, the index of population health and social problems, the prison population, physical and mental health, etc. (methodology used to design the human development indicators by the United Nations Development Programme).

The most used method for studying the distribution of income inequality is represented by the indicator which is calculated as the ratio between the incomes of the upper and lower quintiles (S80/S20). It is the part of the total income that belongs to the richest 20% of the country's inhabitants and the part what belongs to the poorest 20% (harmonized methodology and adopted by international statistics). Governments, as political decision-makers, and society cannot combat poverty and social exclusion without analysing the inequalities within society, regardless of whether they are of an economic or social nature.

There are still inequalities in income distribution in 2023, the last year for which we have published data. The weighted average of national rates calculated for 20 of the EU Member States shows that the top 20% of the population (with the highest equivalent disposable income) has 4.6 times higher income than the bottom 20% (with the lowest equivalent disposable income) (Annex 1, Figure 1).

The states in the European Union with the lowest rates of inequality are, in general, the Nordic countries, which develop and constantly implement policies that promote as little difference as possible between the wage incomes of the best-paid employees in relation to the income of employees with low wages. But in 2023, the lowest inequality rate was in Slovenia with 3.34

closely followed by Belgium with 3.38, the Czech Republic with 3.42 and Slovakia with 3.63 followed by Finland with 3.78 (Annex 1, Figure 1). In the Netherlands it is 3.93 and in Denmark it is 4.15, and in Sweden it is increasing, having 4.73.

In the first five states where the income distribution inequality rate is the lowest in the analysed period, 2007-2023, it has variations of up to 0.1 points, which demonstrates the constant concern of the governments of the respective states to reduce and maintain a wage difference as small as possible (Figure 1). At the same time, in 2023, at the opposite pole is Bulgaria, with the highest income distribution inequality rate of 6.61, followed by countries such as Lithuania with 6.32, Latvia with 6.32, Romania with 5.83, and Portugal 5.60 (Annex 1, Figure 1). Romania had the highest rate, of 8.11, at the beginning of the analysed period, in 2007, but it decreased approximately 2.3 percentage points until 2023, being already in the fourth position.

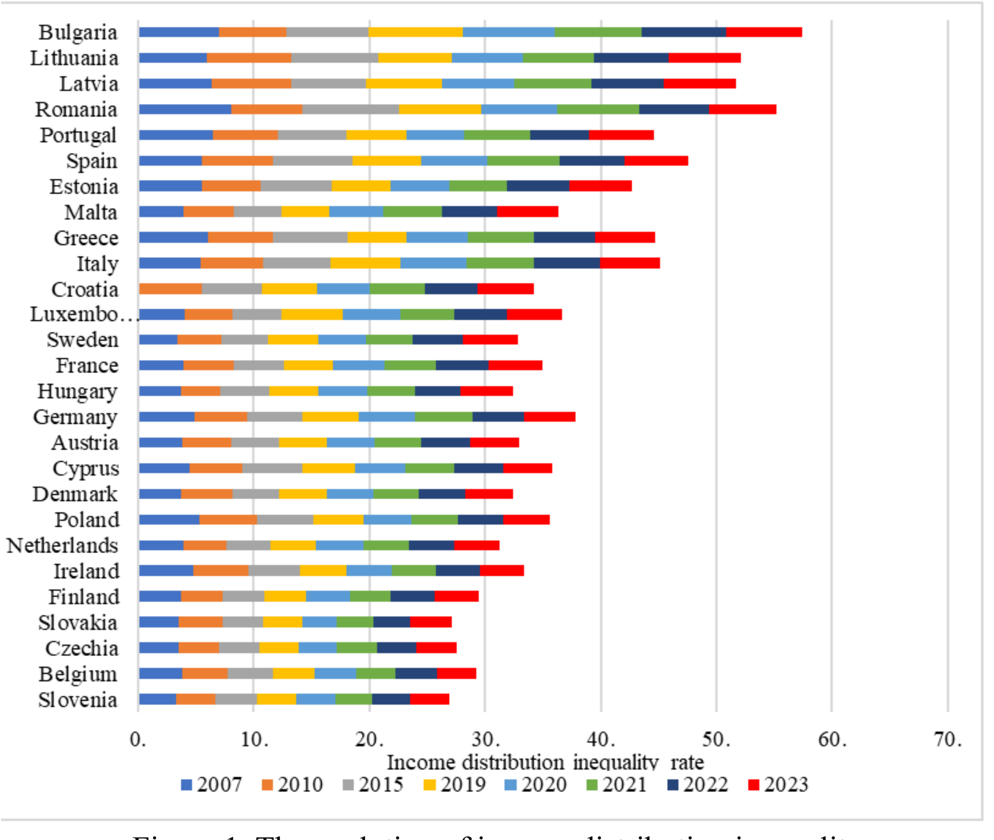

Figure 1. The evolution of income distribution inequality in European Union countries
Source: Eurostat database 2024, Inequality of income distribution

In the analysed period, it can be observed that year 2010 has lower values for these five countries, of which Portugal has the lowest value, 5.56, followed by Bulgaria with 5.86, and Romania with 6.11, being surpassed by Lithuania with 7.35 and by Latvia with 6.84 (Figure 2). In the following period, wage policies had the expected results in 2023, when the values of this indicator are the lowest.

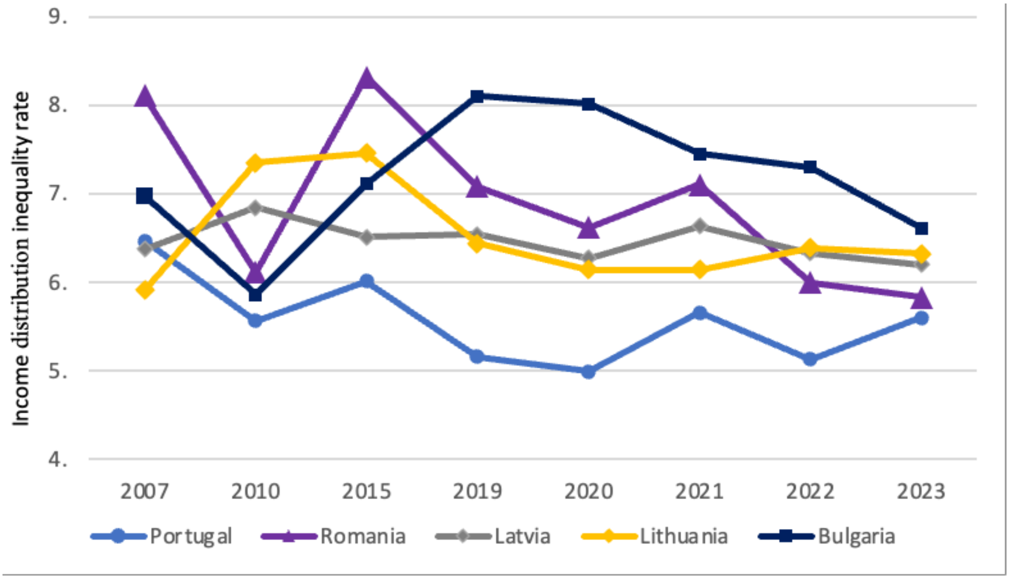

Figure 2. Evolution of income inequality in the first five states with the highest income distribution inequality rate
Source: Eurostat database 2024, Inequality of income distribution

6. Income inequality in Romania

Inequality is considered to be large and unfair because of the gap (Molnar, 2010) between the living conditions of the majority of the population and the luxurious life, in many cases ostentatiously displayed, of the rich. Also, it is a well-known fact that many of the wealth and large and very large incomes come from activities or capital accumulated in the underground economy, by breaking the law or by exploiting the weakness of the legal system, as well as from acts of corruption, while many poor people have neither the opportunity nor the possibility or ability to get a job, with even less of one that would allow the realization of decent incomes.

The general low standard of living in Romania, compared to that in other European countries, heightens the feeling that the distribution of income is unfair, which affects economic and social behaviour, as well as social cohesion. From the point of view of equity and efficiency, the excessive growth of inequality has become a subject of concern for decision-makers in social and economic policy, but also for researchers in the social and economic field.

Maintaining income inequality within reasonable limits is a constant concern through the adoption and application of social and economic policies oriented towards knowing the causes and determining factors, as well as the link with economic and social development. Consistent assessments of income and consumption inequality have been made since the second part of the 1990s, thanks to the availability of a new source of relevant data collected through household statistical surveys.

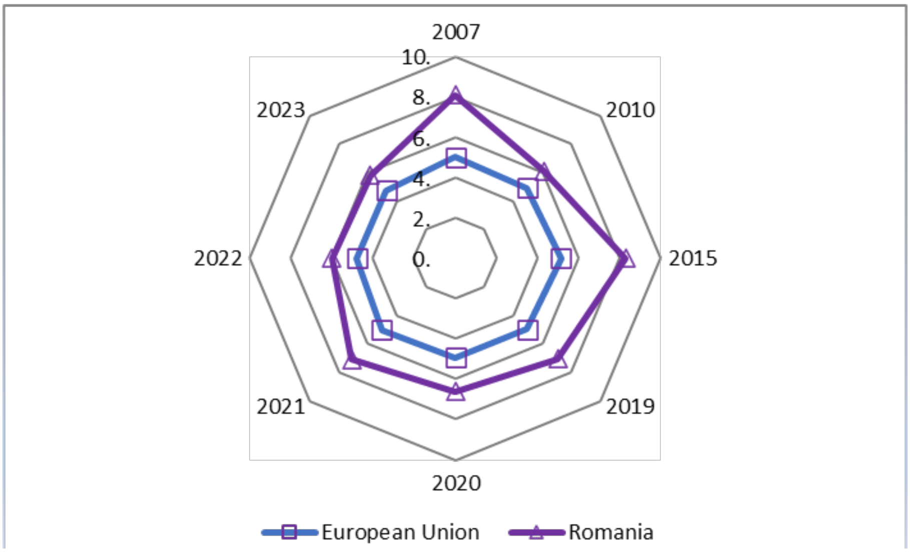

Figure 3. Evolution of the income distribution rate in Romania compared to the European Union average

Source: Eurostat database 2024, Inequality of income distribution

Compared to the European Union average, in 2007, the income inequality rate is 5.02, and in Romania it is 40% higher (8.11), being the highest degree of income inequality in the European Union (Figure 3). As a result of the entry into the European Union, the directives and requirements of the desired convergence, efforts were made to reduce the gap between incomes. The EU average remains approximately constant over the years, with a decrease in the gap compared to this average being registered in Romania.

Since 2013, Romania has again the highest degree of income inequality, of 6.8, followed by 7.2 in 2014 and 8.3 in 2015. This situation can also be interpreted that the most well-paid employees in Romania earned 8.3 times more than those with the lowest salaries (Figure 3).

In 2015, the gap between the European Union average of 5.16 and Romania's 8.32 increased again, when the largest income inequality was recorded for the studied period 2007-2023. This evolution of income inequality rate shows us that high wages have increased much more than the minimum wage (Figure 3). Starting from 2019, the income inequality index started to decrease, as a result of the increase in the minimum wage, it fell to 7.08, then in 2020 it reached 6.62, up to 5.83 in 2023, narrowing the gap with the Union European which registered in 2023 an index of 4.76 (Figure 3).

The period in which income inequality decreased, in the years 2010, 2019, 2020 and 2023, was mainly determined by the increase in the guaranteed minimum wage and the level of pensions.

On the one hand, inequalities in income distribution are also encouraged to stimulate people to improve their situation through work, innovation or the acquisition of new skills. On the other hand, exaggerated income inequalities, with too little of a starting base, lead to poverty and social exclusion together with all the problems associated with this condition. The states that have low values of the income inequality index also present poverty rates much lower than the European average.

7. Evolution of the minimum monthly gross wage in UE

At the level of the European Union, only a part of the countries have established a national minimum wage, only 22 out of 31 states studied by KPMG (2016) from this point of view. It was desired to implement a common directive (EU Directive 2022/2041) at the EU level regarding the labour market, with the help of which to study which is the state with the lowest, respectively the highest monthly gross minimum wage in Europe and what is their value.

Almost all states have some form of minimum wage, but the specifics vary greatly from state to state. In some countries, such as Romania, there is a single national minimum wage. In other states, there are different levels of minimum wage, depending on the industry in which the employer operates, the position held by the employee, the employee's education, age, or other criteria. In these cases, minimum wages are often set on the basis of collective labour agreements. There are interests in clarifying these issues, as there may be a number of complications due to the way it is defined.

In 2024, the lowest gross minimum wage in Europe is 477 euros/month in Bulgaria, followed by Hungary with 675 euros/month, Latvia with 700 euros/month, and Romania is in position 4, with 743 euros/month (Appendix 2). At the opposite pole, the highest monthly minimum wage is 2,570 euros in Luxembourg. The ratio between the highest and the lowest wage is five times, at the level of the European Union.

8. The evolution of the minimum monthly gross wage in Romania

In Romania, income distribution is marked by the generally low level of wages and their relatively high inequality (8.3 in 2015). Inequality increased during the transition period to the market economy (Molnar 2010), in periods of economic decline and economic growth, both, with some interruptions of this trend, mainly related to elections. Before 2000, inequality increased because many households suffered more or less income losses due to high inflation and economic recession, and others got richer, by fair or foul means.

The accelerated growth of the gross minimum wage per economy in Romania, from the period 2012-2016, should have alleviated some of the income inequality of employees, but this did not happen. Thus, despite the fact that the minimum wage increased by 50% in this interval, the increase in the wages of the lowest paid employees did not manage to have a growth rate higher than that of the incomes of the richest wage earners, so that inequality increased from an index of 6.3 in 2012 to 8.3 in 2016 (Figure 3).

The minimum monthly gross wage per economy in 2016 increased from 232 euros/month to 460 euros/month in 2020, when it stagnated in 2021, then increased annually to 743 euros/month in 2024 (Figure 4).

It follows that, in Romania, the minimum monthly gross wage increased by approximately 100%, it practically doubled in the period 2016-2020, from 232 euros/month, to 460 euros/month and followed, in the years 2021-2024, an increase of 161%, up to 743 euros/month. So, between 2016 and 2024, the minimum monthly gross wage in Romania increased by 320%.

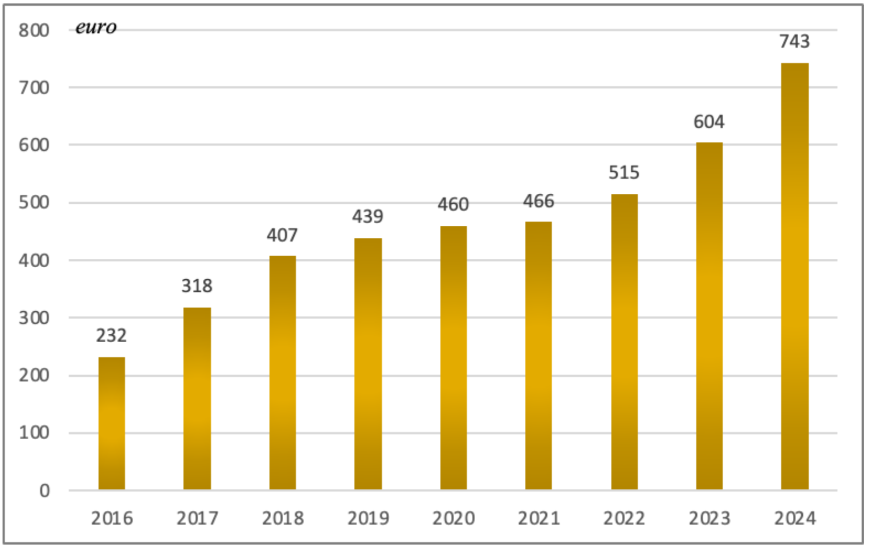

Figure 4. The minimum monthly gross wage in Romania (euro)

Source: Eurostat database, Minimum wages [tps00155]

The increase in the gross minimum wage per country guaranteed in payment implies a closeness of the remuneration to the level required by the EU Directive 2022/2041 on adequate minimum salaries in the European Union.

The gradual transition to progressive wage taxation in Romania positively complements the transfer reforms aimed at reducing income inequality (OECD Economic Surveys: Romania 2024).

In order to reduce inequality and to prevent its excessive growth, income redistribution through policies to increase the minimum wage and pensions has become a necessity. In a tight labour market, large wage increases threaten to erode international competitiveness and unit labour costs have risen rapidly (World Bank, 2023).

9. Conclusions

Global income growth in recent years has been driven, since 2007, by developing and emerging economies. It is worrying that in some countries wages have remained at their 2007 level (Global Wage Report 2014/15) and even in some developed economies, wage growth stagnated in 2012 and 2013. At the level of each employee or the level of the company, one can see the effects produced by the level of wages, by the possibility of their increase.

In 2015, the gap between the average income inequality of the European Union (5.16) and of Romania (8.32) was at the highest level (3.16), of all the studied period (2007-2023). Starting from 2019, the income inequality index in Romania began to decrease to 7.08, then in 2020 it reached 6.62, and 5.83 in 2023, reducing the gap with the European Union level, which was 4.76 in 2023. At the same time, for 2023, in the ranking of the top five countries with the highest index of inequality of income distribution, Bulgaria has the highest rate of inequality of income distribution with 6.61, followed by Lithuania with 6.32, Latvia with 6.32, Romania with 5.83 and Portugal with 5.60.

By increasing the level of social protection and increasing the efficiency of the social protection system, as well as by ensuring the necessary resources, including by better collecting taxes and social contributions and by allocating more resources in line with economic growth, income redistribution has an important contribution to alleviating inequality through social transfers.

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Annex 1

Inequality of income distribution rate

	2007	**2010**	**2015**	**2019**	**2020**	**2021**	**2022**	**2023**
EU 27	:	:	5.16	4.98	4.93	5.04	4.79	4.76
Belgium	3.87	3.92	3.83	3.61	3.65	3.42	3.56	3.38
Bulgaria	6.98	5.86	7.11	8.10	8.01	7.45	7.30	6.61
Czechia	3.52	3.47	3.51	3.34	3.34	3.43	3.48	3.42
Denmark	3.73	4.41	4.08	4.09	4.00	3.93	4.03	4.15
Germany	4.93	4.49	4.80	4.89	4.87	4.98	4.38	4.44
Estonia	5.54	5.01	6.21	5.08	5.03	5.03	5.39	5.37
Ireland	4.82	4.70	4.50	4.02	3.92	3.75	3.81	3.86
Greece	6.01	5.61	6.51	5.11	5.23	5.79	5.20	5.28

Spain	5.48	6.16	6.87	5.94	5.77	6.19	5.63	5.50
France	3.88	4.43	4.29	4.27	4.42	4.41	4.60	4.63
Croatia	:	5.54	5.14	4.74	4.59	4.77	4.57	4.91
Italy	5.42	5.38	5.84	6.01	5.75	5.86	5.62	5.27
Cyprus	4.44	4.54	5.20	4.58	4.31	4.23	4.28	4.27
Latvia	6.37	6.84	6.51	6.54	6.27	6.63	6.33	6.20
Lithuania	5.91	7.35	7.46	6.44	6.14	6.14	6.39	6.32
Luxembourg	4.02	4.10	4.26	5.34	4.99	4.59	4.54	4.79
Hungary	3.67	3.41	4.30	4.23	4.16	4.15	3.99	4.47
Malta	3.89	4.33	4.15	4.18	4.69	5.03	4.75	5.30
Netherlands	3.97	3.65	3.82	3.94	4.15	3.88	3.94	3.93
Austria	3.77	4.34	4.05	4.17	4.11	4.00	4.25	4.28
Poland	5.26	4.98	4.92	4.37	4.07	4.03	3.91	4.06
Portugal	6.47	5.56	6.01	5.16	4.99	5.66	5.13	5.60
Romania	8.11	6.11	8.32	7.08	6.62	7.10	6.00	5.83
Slovenia	3.31	3.42	3.60	3.39	3.32	3.24	3.28	3.34
Slovakia	3.48	3.80	3.54	3.34	3.03	3.20	3.12	3.63
Finland	3.71	3.61	3.56	3.69	3.72	3.58	3.75	3.78
Sweden	3.35	3.85	4.06	4.33	4.12	4.04	4.34	4.73

Source: Eurostat database 2024, Inequality of income distribution; Note (:)not available

Annex 2

Minimum gross monthly wage (euro)

	2019	2020	2021	2022	2023	2024
EU 27	:	:	:	:	:	:
Euro area – 20 countries	:	:	:	:	:	:
Belgium	1594	1626	1626	1842	1955	2070
Bulgaria	286	312	332	363	399	477
Czechia	525	546	596	655	729	755
Denmark	:	:	:	:	:	:
Germany	1561	1544	1602	1739	1997	2054
Estonia	540	584	584	654	725	820
Ireland	1656	1707	1724	1775	1910	2146
Greece	758	758	758	832	910	968
Spain	1050	1108	1108	1167	1260	1323
France	1521	1539	1555	1646	1747	1767
Croatia	507	546	567	622	700	840
Italy	:	:	:	:	:	:
Cyprus	:	:	:	:	940	1000

Latvia	430	430	500	500	620	700
Lithuania	555	607	642	730	840	924
Luxembourg	2090	2142	2202	2313	2508	2571
Hungary	461	452	476	504	624	675
Malta	762	777	785	792	835	925
Netherlands	1636	1680	1701	1756	1995	2134
Austria	:	:	:	:	:	:
Poland	529	583	619	642	811	998
Portugal	700	741	776	823	887	957
Romania	439	461	467	516	604	743
Slovenia	887	941	1024	1074	1203	1254
Slovakia	520	580	623	646	700	750
Finland	:	:	:	:	:	:
Sweden	:	:	:	:	:	:

*Source: Eurostat database 2024, Minimum wages [tps00155], Note (:)*not available