Factors of market income inequality in Central and Eastern European countries

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Abstract. Objective*: The factors of market income inequality in eleven Central and Eastern European countries (Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia) are analyzed in the present article. The main thesis is that changes in employment structures and, more specifically, decreasing shares of employment in the industrial sector are the key drivers of income inequality in the majority of these countries.* ***Method****: The central idea of the paper is confirmed by the results of the panel data regression analysis.* ***Results****: The changes in employment structures are the main determinant of income inequality in most of the CEE countries. A decrease in the level of employment in the industrial sector (the effect is intensified by a decrease in the level of agriculture employment, in several countries) results in growing market income inequality. Nonetheless, the effect of such changes in the employment structures can be partly compensated by a growing share of the population with tertiary education or the specifics of a particular economy.* ***Originality****: The study demonstrates the overall impact of the transformations in the employment structures on market income inequality in the CEE countries and defines the factors which can deter the rising levels of income inequality.*

Keywords*: income inequality, structural transformations, employment structure, industrial sector, income distribution.*
JEL classification*: D63, J21.*

1. Introduction

The aim of the article is to determine the factors of market income inequality (before taxes and transfers) in 11 Central and Eastern European (CEE) countries: Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia.

The key determinant of changes in market income distribution in the CEE countries is the transformations in the employment structures of the CEE economies: more precisely, decreasing shares of employment in the industrial and agricultural sectors have led to widening income inequality, unless this restructuring effect is compensated by other forces, such as growing shares of population with tertiary education or specifics of the service sector in a particular country (to some extent, the latter can be applied to the Estonian case, that is discussed in the "Results" Section).

The decrease in employment in the CEE industrial sectors is primarily caused by the transition processes to market economies, migration outflows, globalization (trade liberalization/openness, that can influence on employment in industry through two channels:

i. increasing imports of industrial goods, resulting in the lower demand in industrial workers, and
ii. outsourcing of industrial jobs to foreign countries with cheaper workforce), technological progress.

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This decrease in employment in industry is "accompanied" by higher wage dispersion in the service sector (in comparison with the industrial sector) and leads to decline of trade unions and other social and political institutions, which defend workers' rights and to weakening of workers' bargaining power.

2. Literature review

Structural changes and their impact on income inequality were studied by Kuznets (1955): Kuznets supposed that income inequality, at first, increases, but, at higher stages of economic development (and when the less effective sectors' influence on income distribution diminishes), income inequality level decreases. Nevertheless, the Kuznets' curve could not be observed in advanced economies since 1980s and later; thus, Milanovic (2016) modified Kuznets' hypothesis and introduced the concept of "Kuznets waves": according to it, a new phase of income inequality evolution has begun in 1980s and has been caused by technological progress, (trade) openness policy.

The nexus between specifically employment transitions and income inequality is studied by Mehic (2018), who emphasized the effects of trade liberalization and technological progress on income inequality level, Kwon (2014), who analyzed the influence of transition from service to knowledge employment on income distribution and Abolhasani & Samadi (2021), who defined a negative relationship between employment in industry and income inequality in Middle Eastern countries.

Litwin (2015) also included in a model a variable on the share of employment in the manufacturing sector ("the percent of the population working in manufacturing sector") and pointed that "trade does not directly affect income inequality, but instead affects the size of the manufacturing sector, which then affects inequality" (p. 12). As he noted, reducing employment in industry leads to migration of workers to agricultural and service sectors with lower wages. As a consequence, income inequality is increasing through two channels: 1) decline in unionization; 2) expansion of the service sector that includes a lot of unskilled jobs that are poorly paid than the ones in the industrial sector. However, the main purpose of Litwin's article was to determine how minimum wage changes affect income inequality, while in the present paper changes in minimum wages are considered as a "reflection" of changes in the strength of workers' bargaining power.

Storchevoi (2024a, 2024b, 2025) employed the variable "share of employment in the industrial sector" and studied an overall effect of changes in the industry employment on market income inequality. Technological progress and globalization (specifically, trade liberalization, outsourcing of jobs, deregulation of financial markets) lead to reduced demand in industrial workers and, consequently to a decreasing share of employment in industry, while at the same time there is an expansion of the service sector, that usually has a higher wage dispersion[2] and more heterogeneous nature than the industrial sector. Alongside occurs a decline in trade unions density (and weakening of other social institutions, which defend workers' interests), workers' bargaining power and "pro-workers" political parties' popularity. Thus, a middle-class base (industrial employees with a similar level of education) is undermined, leading to growing market income inequality levels.

The nexus between structural changes and income inequality in the CEE countries is studied by Brzezinski & Salach (2022): the main factors of income inequality surge in CEE transition economies in 1990s are liberalization of wage-setting mechanisms (during the socialist period, there was "an administratively compressed wage structure"), growth of the share of private capital, rising unemployment and inactivity rates, growth of earnings dispersion (in the present article the growth of earnings dispersion is examined from a perspective of service sector expansion), transition of workers from state sector to private one. The authors also stated that technology won the race over education in the CEE economies (p. 4), and that introduction of fixed-term contracts as an element of labour market flexibilization has led to mixed results (see "Conclusions" section), the negative sides of which are the formation of dual labour market and the creation of "insecure job traps". Brzezinski & Salach remind

[2] Canada is one of the exceptions: there is a higher wage dispersion in the Canadian industrial sector than in its service sector due to specifics of the Canadian economy (Storchevoi, 2025).

about the lack of transparency during the privatization processes in transition economies, and this non-transparency resulted in unjustified privileges.

In another article Brzezinski (2018), likewise, stressed the influence of transition processes on rising income inequality levels (the changes in income distribution due to economic transformations are also examined by Alvaredo & Gasparini (2013), Tóth (2014), Perugini & Pompei (2015)) and determined to what extent falling full-time employment rate during the Great Recession led to income inequality changes in the CEE countries: it explained 60-80% of the Gini index change for market incomes. Moreover, there were smaller effects of mitigation efforts in the countries of the CEE region as their tax and transfer systems are less comprehensive than the ones in Western European economies.

Magda et al. (2021) concluded that, despite rising inequality levels during transition period in the CEE economies, wage inequality has soon stabilized and even reduced in almost all CEE countries due to "disproportionately large increases in wages at the bottom of the wage distribution" and "decreases in between-firm wage inequality", and large wage structure effects have compensated the changes in the composition of workers. The authors determined which institutional and economic changes (reforms in labor codes; increasing bargaining power of workers; increase in minimum wages, that had both direct and spillover effects on income inequality; migration of workers to Western Europe that provided an "outside option", especially for low-skilled workers, who are in great demand) have resulted in reduction in wages inequality; still a slight increase in wage inequality is observed in the Czech Republic as the migration outflow rate is lower and minimum wages relatively decreased there.

Dorjnyambuu (2025) published a systematic literature review on income inequality in the CEE countries; among other factors of income inequality, the author mentioned the presence of a high wage inequality level between-firms in Romania and Bulgaria (p. 27) as well as the role of ageing and alterations in household composition in widening income inequality (p. 33). The influence of the educational factor on income inequality is interpreted ambiguously due to various approaches to evaluating this relationship: a number of studies demonstrate a dis-equalizing effect of education in Bulgaria (Mihaylova & Bratoeva-Manoleva, 2018), the Czech Republic (Eriksson et al., 2013; Brázdilová & Švarcová, 2015), Poland (Kolasa, 2021), Romania (Petcu, 2022), while Förster & Tóth (2015) conclude that there is no linear relationship between education and inequality (positive changes in educational attainment can, firstly, widen inequality, but later it can equalize income distribution).

Davidescu et al. (2022) conclude that the share of employment in the industrial sector as an income inequality determinant plays a mediating role in the CEE countries and the share of employment in the service sector exhibits a moderating role. Reducing the share of employment in industry with increasing demand for unskilled workers in the service sector as well as the growing share of population with higher education led to higher income inequality levels, while increasing imports (due to trade openness) caused reduction in demand for workers in the industrial sector and, as a consequence, contributed to the growth of income inequality levels. The authors also stressed a more important role of minimum wages as a determinant of income inequality in Central and South-Eastern European countries in comparison with Western European countries, and they also came to a conclusion that impact of technological progress on income distribution varies. In this regard, an OECD study (2011) should be mentioned as it showed that, at that time, technological progress led to positive changes in earnings inequality in a number of the CEE economies: Hungary, Poland, the Czech Republic, Slovakia.

As for other factors of income inequality in the CEE countries, Mihaylova (2015) examined the influence of FDI on income distribution: FDI inflows contribute to an increase in income inequality levels when the level of human capital and economic development is low, and FDI inflows may contribute to narrowing income inequality, when human capital and economic development are at higher levels in a country. Inflation and the expansion of the service sector also contribute to increases in income inequality levels. However, some studies (Lee and Vivarelli, 2004) suggest that FDI inflows to developing countries results in increasing demand for skilled labour and contributes to an increase in inequality. Makreshanska (2015) (see also: Makreshanska-Mladenovska & Petrevski, 2018) examined the impact of fiscal decentralization on income inequality in the CEE countries: "[the impact] is smaller when local governments are financed in greater extent by fiscal transfers from central government than by own local sources of revenue" (Makreshanska, 2015: p. 257). Rose & Viju (2014) studied the nexus between wealth of a country and its income inequality level. The relationship between income inequality and its contributing factors varies according to the income category of a CEE country. As for the low-

income group of economies, privatization and wealth (in terms of GDP per capita) plays a more significant role in income distribution than in other groups.

According to Leitner & Stehrer's research (2014), differences between urban and rural regions are an additional driver of income inequality in some CEE countries: "Only in Poland, Bulgaria and Romania regional differences are remarkable additional drivers of the level of income inequality…" (p. 23). Other drivers are "the household-specific employment rate" (calculated as employed as a share of total household members above 15 years of age and not in education, p. 5), which is the most important determinant, and differences in the education attainment level of the head of the household. Förster et al. (2002) also examined intra-regional inequality and urban-rural "gaps" in the CEE countries. Nae (2019) found that, while there was some convergence in the CEE countries, there was some (inter-state) internal divergence in incomes from 2000 to 2017 (the biggest one was found in Bulgaria, and the smallest one – in Hungary). Nikolić et al. (2024) examined how institutional and political factors influenced long-term inequality in Bulgaria and former Czechoslovakia. In the first half of the XX century, Czechoslovakia had a more stratified industrial society (p. 11) and that was a reason for higher within-class inequality. In Bulgaria, the agricultural sector was the dominant one, with a low-income dispersion and, thus it "held down the within social-class component".

Görkey (2022) demonstrated different measurements of inequality in the CEE countries, and Večerník (2012) studied the connections between changes in earnings disparities and inequality of household incomes in the CEE region.

3. Methodology and data

Data on market income inequality was extracted from two sources:

1) The Standardized World Income Inequality Database (Versions 8-9) (Solt, 2019[3]), and

2) the OECD database (OECD, 2025a).

The data from these sources varies due to differences in the used methodology; the OECD provides us with more exact data for each year, while The Standardized World Income Inequality Database gives estimates for a longer period of time and an insight on long-run tendencies in income distribution.

If we compare the data from both datasets (for periods, when the OECD data is available), we can observe that both sets give similar estimates for Bulgaria (correlation coefficient = 0,87), Slovakia (0,91), the Czech Republic (0,85), Hungary (0,91), Poland (1), Lithuania (0,7), Estonia (0,79), Slovenia (0,9). However, there is no strong correlation in the case of Latvia (0,52) and no positive correlation in the cases of Romania (-0,41) and Croatia (-0,26). Nevertheless, it is not a reason to refuse to use any of these datasets for these three countries: even though, the correlation coefficients are low, we can observe similar patterns (both datasets demonstrate an increase in market income inequality level in Romania for the 2006-2009 period, then a stabilization of its level with small fluctuations for 2010-2015, a slight increase from 2016 to 2018, and a slow decline for 2018-2022; in the Croatian case both datasets show that there was a rather stable level of market income inequality for 2009-2016 and a decrease in 2017-2019; and in the Latvian case both sets demonstrate that market income inequality was rising from 2006 to 2010, then it was decreasing till 2016, and since that its level has become rather stable), hence, these coefficients can be explained by more precise (due to OECD methodology) and less "covering" in terms of time OECD data (so it covers more fluctuations), but the Standardized World Income Inequality Database gives us an understanding of long-run tendencies since it covers longer periods of time.

The data on education attainment, trade unions density and collective bargaining coverage was retrieved also from the OECD database (OECD, 2025b, 2025c, 2025d), while the data on the share of population, employed in the industrial and agricultural sectors, was extracted from the World Bank database (World Bank, 2025a, 2025b). Although the used data sources are rather reliable, we shall always keep in mind statistical errors.

[3] Although the year of publication is 2019, data for later years was also added in this database. However, neither Solt's dataset, nor OECD dataset include data for the analyzed CEE economies for 2023-2025 (there is only a provisional value for Latvia for 2023).

Fixed effects (FE) models are employed in the present article in order to demonstrate the relationships between variables. FE models focus on within-effects, i.e. they control for individual-specific and time-invariant characteristics. Solt's (2019) data on market income inequality was used in Models 1 and 2, while the OECD data for the same category was used in Model 3. As there is not enough data on Bulgaria, Romania and Croatia in the OECD database (education attainment and trade unions indicators), these countries were excluded from Model 3.

Model 1: $Y_{it} = \beta_1 IND_{it} + \mu_i + \varepsilon_{it}$, (1)

where $\boldsymbol{Y}$ denotes Gini index (market income, before taxes and transfers, from 0 to 1), $\boldsymbol{IND}$ is the share of employment in the industrial sector (from 0 to 1), $\boldsymbol{t}$ is a period of observations, $\boldsymbol{i}$ indicates a country, $\boldsymbol{\mu}$ is the unobserved time-invariant individual effect, $\boldsymbol{\varepsilon}$ is the error term.

Model 2: $Y_{it} = \beta_1 AGRIND_{it} + \mu_i + \varepsilon_{it}$, (2)

where $\boldsymbol{AGRIND}$ is the share of employment in the agricultural and industrial sectors (from 0 to 1).

Model 3: $Y_{it} = \beta_1 AGRIND_{it} + \beta_2 UNIONS_{it} + \beta_3 COV_{it} + \beta_4 EDU_{it} + \mu_i + \varepsilon_{it}$, (3)

Where $\boldsymbol{UNIONS}$ is the indicator of trade unions density (from 0 to 1), $\boldsymbol{COV}$ is the collective bargaining coverage (from 0 to 1), $\boldsymbol{EDU}$ is the share of the population with tertiary education (from 0 to 1).

4. Research results and comments

The regression outcomes for the models 1, 2 and 3 are presented in Table 1. In all of the models the coefficients for the variables "IND" (the share of employment in the industrial sector), "AGRIND" (the share of employment in the agricultural and industrial sectors) and "EDU" (the share of population with tertiary education) are statistically significant at the 1% significance level, while, as the Model 3 results show, the coefficients for the variables "UNIONS" (trade unions density) and "COV" (collective bargaining coverage) are not statistically significant . This can be explained by the specifics of the panel data analysis and by the fact that the changes in trade unions density (and, as a consequence, partly in collective bargaining coverage) are basically "embedded" in the indicator of employment in the industrial sector and, to a large extent, reflect the changes in the share of employment in industry.

Table 1. Panel data regression results

Model	**1**	**2**	**3**			
Var.	**IND**	**AGRIND**	**AGRIND**	**UNIONS**	**COV**	**EDU**
Coef.	-0.464***	-0.269***	-0.767***	0.089*	0.008	-0.420***
(Standard error)	(0.047)	(0.015)	(0.089)	(0.051)	(0.024)	(0.056)
t-stats	-9.844	-18.034	-8.658	1.759	0.332	-7.541
Observations	352	352	138			
R-squared	0.222	0.489	0.503			
Adjusted R-squared	0.197	0.472	0.459			
F Statistic	96.899*** (df = 1; 340)	325.232*** (df = 1; 340)	31.829*** (df = 4; 126)			

Note: *p<0.1; **p<0.05; ***p<0.01

Source: Own elaboration.

Thus, the regression analysis results and the correlation coefficients (see Annex 1, column 8) demonstrate that there is a negative relationship between the share of employment in the industrial sector and market income inequality in Bulgaria, Romania, Czech Republic, Hungary, Poland, Latvia, Lithuania, Slovenia, Croatia; in most countries, especially in Lithuania, Latvia, Hungary, the effect of

employment changes on market income inequality significantly increases if we employ a variable, which includes both the shares of employment in agricultural and industrial sectors (see Annex 1, column 7), since CEE countries, in general, have a relatively larger share of employment in agriculture than other developed European countries – that is the reason why the Model 2 has greater explanatory power than the Model 1.

The absence of any statistically significant relationship between employment changes and market income inequality can be definitely established in the cases of Slovak Republic and Estonia (see Annex 1, columns 7-8). The reason why we observe this absence of correlation between employment in the industrial plus agricultural sectors and market income inequality in Slovakia, is the stability of the employment structure in the country: the employment in these two sectors fell by 10% in 1991-2001 (from 53% in 1991 to 43% in 2001), when there was a strong negative correlation between employment in the mentioned sectors and market income inequality, while in the next twenty years (2002-2022) the employment in industry and agriculture dropped only by 5% (and for some years it was stable) from 43% to about 38%, therefore, this factor – the stability of the employment structure in two last decades – as well as growing share of population with tertiary education has determined the narrowing income inequality in Slovakia. In the Estonian case we cannot observe any similar stability of employment structure, however, the absence of a relationship between changes in employment structure and market income inequality can be explained by the following facts: 1) Estonia's ICT (information and communications technology) sub-sector as the fraction of the service sector is among the largest ones in the EU in terms of the proportion of employed workforce (other CEE countries are lower than Estonia in this ranking (Eurostat, 2025) and the ICT sub-sector displays the highest average wage for employees in Estonia (Statistics Estonia, 2025). Consequently this phenomenon can compensate the decrease of employment in the industrial and agricultural sectors and can be a factor of narrowing market income inequality (it is necessary to mention that the employment in the ICT sub-sector in Estonia has significantly risen and, moreover, Estonia is among the EU countries with the largest proportion of people without tertiary education employed in the ICT (Eurostat, 2025): hence, the educational barrier for entry in the ICT is lower in Estonia than in the majority of the EU countries, that means, a possible transition of workforce from the industrial sector to the ICT, in some sense, is for now easier to be made in Estonia); 2) Estonia has one of the highest proportion of population with tertiary education among the CEE countries (2nd place after Lithuania) so that it can compensate the effect of a decreasing share of employment in the industrial sector under certain favorable conditions. It also should be kept in mind that Estonia has the smallest population among the analyzed countries, and this fact also affects the results.

According to the Solt's data (Solt, 2019) on market income inequality, its level has been rising gradually in Bulgaria since 1991, and the OECD data for Bulgaria (available for the period of 2006-2022) also shows a rise in market income inequality level from 2008 till 2016, when the share of employment in industry dropped by about 7%; in (2017-2022) market income inequality level has stabilized (with a slight decrease), while so has the level of employment in the industrial sector.

Solt's data shows that market income inequality level rose gradually, with small fluctuations in Romania for the period from 1991 till 2018 and then it has slightly decreased. The OECD data for Romania, though, demonstrates more significant fluctuations in the level of income inequality in 2006-2022 due to the differences in methodology, but that dataset, as the Solt's one, shows that income inequality in Romania narrowed in 2006-2009 and then almost stabilized for the period of 2010-2015, followed by a slightly increase till 2018 and decrease in 2019-2021. In fact, in the case of Romania there is no significant relationship between employment in industry and market income inequality for the entire time range 2002-2022 (regardless which dataset is used), but 1991-2001is a special period when the employment in industry decreased by about 9,5% and the level of market income inequality increased by almost 12%; in 2002-2022 the share of employment in the industrial sector stabilized at 29-32%, and the level of market income inequality did not change sharply anymore. Romania is also the country with the largest agricultural sector among the analyzed CEE countries, so the changes in income inequality in Romania can be explained partly by the decreasing share of employment in agriculture, however, in the long-run the decreasing share of employment in agriculture added to the effect of the decreasing share of employment in industry on widening income inequality, although for a shorter period of time (2006-2022) we cannot unambiguously define the degree of influence of

reducing employment in agriculture on market income inequality in Romania due to the differences in two datasets. Nevertheless, the OECD dataset shows fluctuations in market income inequality within about 5%, that is not a large range in this case, hence, we can conclude: when there was a rapid decrease in employment in the industrial sector, the market income inequality grew rapidly in Romania, but when (since 2002) the level of employment in industry stabilized for the next two decades, the market income inequality ceased to increase so rapidly, its "growth rate" slowed down and its level almost stabilized as well, according to both datasets. At the same time, the lesser impact of changes in employment in agriculture on market income inequality may be explained by the transition of agricultural workers to low-paid jobs in the service sector and also by demographic factors: aging and rural depopulation (Ursu et al., 2023: p. 15).

In Croatia, the widening market income inequality till the beginning of the 2010s can also be explained by the decrease in the share of employment in the industrial sector; after 2014, the level of income inequality began to slightly decrease with small fluctuations (according to the OECD data) due to stabilization of employment in industry and the compensating effect – the growing share of population with tertiary education that has risen especially sharply since 2008-2009 (TheGlobalEconomy.com, 2022).

The similar pattern can be recognized in the Slovenian case: once the share of employment in the industrial sector stabilized at about a 31%-level and then began even to grow, the market income inequality level also started to reduce (since 2012-2013), while before this period the decreasing employment in industry has led to growing market income inequality.

There is also a strong relationship (though, it is weaker than in a number of other analyzed countries) between employment in industry and market income inequality in the Czech Republic, however, the effect of employment changes on income inequality has been compensated by the growing share of population with tertiary education since approximately 2004 (no earlier data for tertiary education attainment in the Czech Republic is presented in the OECD database). In addition, since 2004 the level of employment in the industrial sector has stabilized, therefore, the level of market income inequality was the highest in 2004 and then it began to decrease with the exception for the 2012, when the Czech economy was indirectly affected by the Euro area crisis (IMF, 2012), and, after this crisis, the market income inequality started to narrow again. Moreover, the Czech Republic became in 2004 a member state of the European Union, which contributed to the growth of the FDI inflows to the country, and since 2005 Czechia's export volumes have increased (Svejnar & Uvalic, 2009: p. 5), causing the following outcomes: the level of employment in the industrial sector has stabilized and the Czech economy has become more prosperous and sustainable.

In Hungary, after the market income inequality level reached its peak in 2012-2013, the employment in industry slightly increased and income inequality began to decrease. Nevertheless, the relationship between market income inequality and employment in industry is not very strong in the Hungarian case as the share of the employment in the industrial sector was decreasing rapidly for several years after the collapse of the socialist bloc (and in these years, at the initial stage of the Hungarian transition to a market economy, the effect of the decreasing share of employment in industry on market income inequality was also enhanced by the decreasing share of employment in the agricultural sector), but later the pace of the decrease in the level of employment in industry and the pace of the increase in the level of market income inequality both slowed down.

As for Poland, the situation is rather similar to the Czech case (with the exception that there was no sharp increase in market income inequality due to 2012 crisis): the level of market income inequality at first grew due to the decrease in the share of employment in the industrial and agricultural sectors, but since 2005 the market income inequality began to narrow as the share of population with tertiary education has been growing and the share of employment in industry stabilized (while the effect of employment in agriculture on market income inequality became weaker as its share got too small).

Market income inequality had been widening in Latvia till 2010 because of decreasing shares of employment in industry and agriculture, but then these shares almost stabilized and the level of income inequality started to decrease with small fluctuations. Both datasets show the rise of market income inequality level in Latvia in 2006-2010, and it is noteworthy, that Latvia was among the European countries, which suffered most of all due to the 2008 financial crisis and its ramifications: in 2009 Latvia's GDP growth had dropped by 16% (World Bank Group, 2025c).

In Lithuania, changes in the employment structure (especially the decreasing share of employment in agriculture) led to widening market income inequality till 2010, when the employment structure stabilized and the level of market income inequality also remained mostly stable with the exceptions of the crisis year - 2012 (there was also a sharp increase in the income inequality level during the Great Recession in 2009-2010) and of 2014 due to the implementation of labor market reforms by the Lithuanian government (European Commission, 2013: p. 4). More specifically, it was due to the "20% adjustment in wage reductions in the private sector" (Richard, 2014) made in order to moderate inflation amidst Lithuania's entry into the eurozone.

Hence, we see that changes in the employment structure and, first of all, decreasing shares of employment in the industrial sector are the key factors of changes in market income inequality levels in the Central and Eastern European countries with the exception of Slovakia and Estonia (due to the abovementioned features of the Slovak and Estonian economies). Now it is necessary to define the forces, which: a) lead to the transition of workers from the industrial sector to the service one[4]; b) "accompany" this transition and widen income inequality; c) are the "derived" forces, caused by such a transition.

In advanced Western economies the shift of workers from the industrial sector to the service one is primarily caused by globalization (more precisely, by trade liberalization, the increasing possibility to outsource manufacturing jobs to other countries, by the deregulation of financial markets (and growth of the financial sector as an outcome) and also by technological progress (globalization and technological progress are also interlinked as the spread of technologies is rapid in the globalized world). Globalization and technological progress affect the employment structure in the CEE economies as well, although to a lesser extent, as, for example, not all CEE countries are among leaders in the industrial robot density. According to the report of the International Federation of Robotics (2024), Slovenia is among top-10 countries and the Czech Republic and Slovakia are among top-20 nations on this indicator.

Increasing imports of industrial goods to the CEE countries are among the outcomes of trade openness and usually lead to decreasing shares of employment in industry. Outsourcing of jobs due to globalization is though occurring in the CEE countries, but it is partly compensated by the FDI inflows to these countries, and, as a result, the economies of this region are even considered as dependent market economies (DMEs) by some researchers (e.g.: May et al., 2024, p. 63-65; although the authors stated that there are tendencies in some CEE countries that allow the researchers to review the type of market economies in these countries and to stop labelling them as unconditional DMEs (see: Bluhm & Varga, 2020, ch. 15)[5].

The major reason of the decrease in employment in the industrial sector in the CEE region is the consequences of the collapse of the socialist bloc and the following transition to market economies: a large number of industrial enterprises were restructured or shut down due to structural reforms and transformations of supply chains and of the economies themselves, the reallocation of ownership and migration of workers, or due to low profitability. Henceforth, the shares of employment in industry rapidly decreased in 1990-2000s, and we can state that CEE economies have come through "double transition" (though, these types of transition are interlinked): 1) a transition from industrial to service economies, like in Western European countries; 2) a transition from centrally planned to market economies, that is characterized by legal and institutional reforms, economic liberalization, privatization, revision of fiscal and monetary policy (IMF, 2000).

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[4] While the forces, leading to a transition of workers from the agricultural sector to other ones, are, first of all, demographic changes (aging of agricultural workforce, migration and rural depopulation, like in the Romanian case) and, to lesser extent (that depends on a particular country), increasing import volumes of agricultural production.

[5] Csontos (2025) used another classification of the types of capitalism (four clusters: neoliberal, liberal developmental, embedded and embedded developmental) and revealed only minor changes from this perspective in the CEE economies, except for Poland and Hungary: these countries moved from the embedded developmental cluster to the embedded one; nonetheless, while state expenditures have grown in some areas (mainly transport) in these two economies, expenditures on education and social protection have relatively decreased.

A force, which "accompanies" the shift in the employment structure, is a higher wage dispersion in the service sector in comparison with industrial and agricultural sectors: the service sector has a more "motley", heterogeneous nature and includes a very limited number of high-paid specializations (like CEOs, financial advisors, managers, "FIRE" positions: finance, insurance, real estate high-paid jobs, etc.[6]) and a large number of low-paid, low-skilled jobs. Therefore, the wage dispersion is growing in countries where there is a shift of workers from the industrial or agricultural sectors to the service sector, and the level of market income inequality is increasing.

A decrease in the share of employment in the industrial sector leads to the decreasing power of trade unions: although the regression analysis results do not demonstrate the variables "trade unions density" or "collective bargaining coverage" are significant, this can be explained as these factors are "embedded" in "the share of employment in the industrial sector", and, in most CEE countries, trade unions density dropped sharply in the first years of transition to market economies, though later the pace of unionization decline has slowed down. The collective bargaining coverage has also been reduced greatly in the CEE countries with an exception of Slovenia[7], where labour market reforms led to the decrease from 100% to 70% in the level of collective bargaining coverage. The labour market flexibilization "created a dual labor market" with a secondary sector of "low-wage and low-productivity positions, …" (Brzezinski, 2022: p. 4), and together with decreasing levels of trade unions density and collective bargaining coverage this has decreased *the bargaining power* of workers[8]. The service sector usually does not have as strong unions as the ones in the industrial sector. Moreover, the decreasing share of workers can result (though, not necessarily) in the falling popularity of labour / "pro-workers" political parties, hence, the workers' bargaining power may drop even more and the redeployment policy may be less "equalizing" (however, income inequality after taxes and transfers is not discussed in the present paper).

5. Conclusions

To summarize, the changes in the employment structure and, in particular, a decreasing share of employment in industry (and to a lesser extent, a decreasing share of employment in agriculture) widen market income inequality in the CEE countries. The opposite forces, which hinder the growing income inequality, are the growing share of the population with tertiary education and, in some cases (like in the Estonian one), the development of a sub-sector with *lower wage dispersion* within the service sector of an economy.

As it was demonstrated by the panel data regression analysis, once the employment composition "stabilized", the educational factor can lower the market income inequality level, if there is enough demand for workers with tertiary education in a country. The base of the middle class used to be mainly the employees of the industrial sector with similar level of education. With the transformations in the structure of economies, i.e. the transition of workers from the industrial sector to the service sector, this base is undermined. However, while the share of population with tertiary education and a demand for employees with this level of education are increasing, a "new" middle class will be forming until education premia does not drop in some sub-sectors of the service sector so that the "heterogeneous" nature of the service sector clearly manifests itself, causing an increase in the levels of market income inequality[9].

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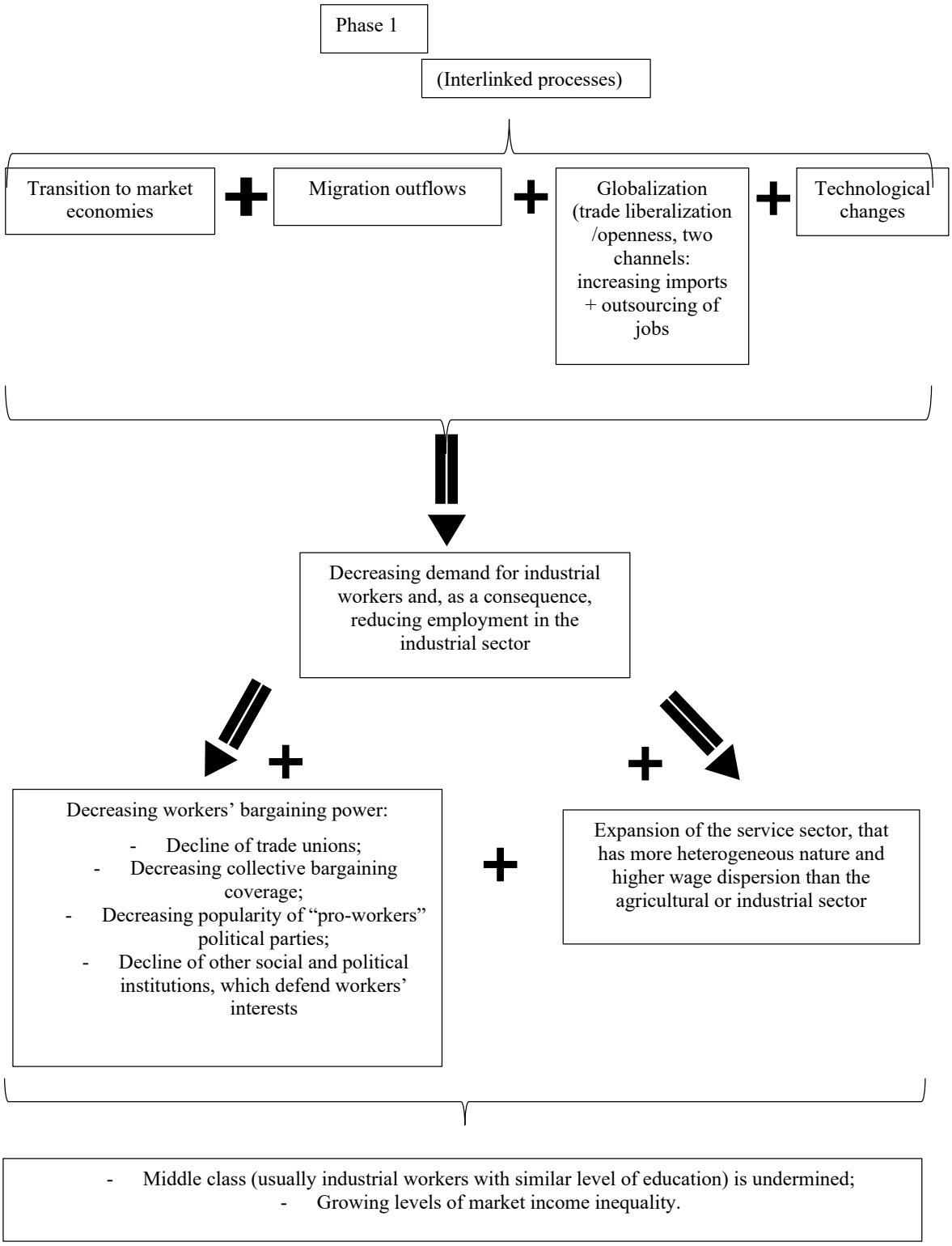
[6] Nevertheless, the less "complexity" of some CEE economies in comparison with Western European economies can manifest itself in the lower number of such high-paid positions and may, to some small extent, deter an increase in market income inequality level.

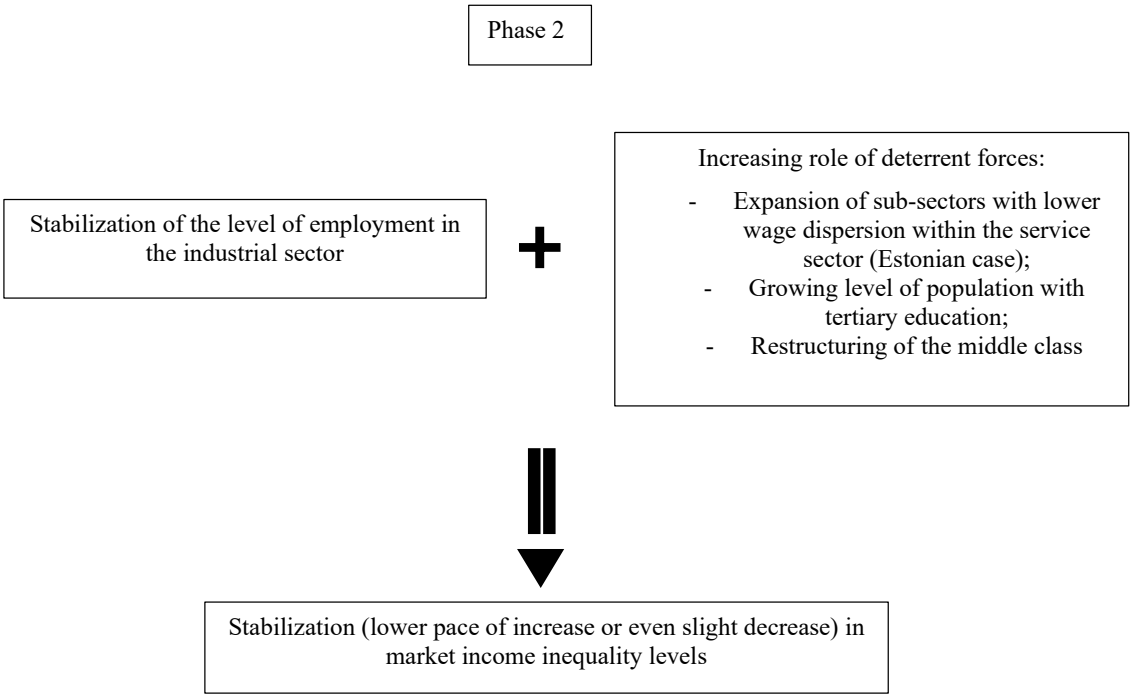
[7] High level of collective bargaining coverage allows Slovenia to stay at relatively lower levels of income inequality, but the changes in income inequality levels still depend primarily on changes in the Slovenian employment structure.

[8] Minimum wage changes (in real terms) also depend a lot on workers' bargaining power.

[9] In some advanced economies, nonetheless, the growing share of the population with tertiary education may be a factor of the increasing income inequality level as the supply of high-educated potential employees can outweigh the demand for them and the education premia can be lowering.

Figure 1. Factors of market income inequality in the CEE economies (1991-2022)





The changes in the employment structures (specifically the shift of workers from the agricultural and industrial sectors to the service one) are caused by the transition processes, globalization (trade liberalization) and technological progress: they led to lower demand in industrial workers and eventually the share of employment in industry has decreased in the CEE countries.

The influence of these processes on income distribution is intensified by the higher wage dispersion in the service sector and a decreasing bargaining power of employees, resulting in the growing levels of market income inequality (see Figure 1), unless there are significant opposite forces, like growing share of population with tertiary education or a sub-sector with lower (than average in the service sector) wage dispersion (nevertheless, the impact of such a sub-sector on income inequality levels may be too limited).

However, as it was mentioned above, the potential of tertiary education as a "deterrent force" is also limited and depends on the demand for high-educated employees in an economy, therefore, we can conclude that changes in the employment structure are the key driver of market income inequality in the CEE countries.

References

Abolhasani, M. J. and Samadi, S. (2021). Investigating and Analyzing the Impact of Employment in Industry on Income Inequality. *Stable Economy Journal*, 1(1), 1-24. DOI: 10.22111/sedj.2021.36532.1107

Alvaredo, F., Gasparini, L. (2013). Recent Trends in Inequality and Poverty in Developing Countries. Documento de Trabajo, No. 151, Universidad Nacional de La Plata, Centro de Estudios Distributivos, Laborales y Sociales (CEDLAS), La Plata. 104 p.

Bluhm, K., Varga, M. (2020). Conservative developmental statism in East Central Europe and Russia. *New Political Economy*, 25(4), 642–659.

Brázdilová, M., Švarcová, P. (2015). Income inequality by highest attained education in the Czech Republic. *Statistika*, 95(4): 5–16.

Brzezinski, M. (2018). Income inequality and the great recession in Central and Eastern Europe. *Economic Systems*, 42(2), 219-247.

Brzezinski, M., Salach, K. (2022). Determinants of inequality in transition countries. IZA World of Labor 2022: 496. DOI: 10.15185/izawol.496

Csontos, T. T. (2025). State expenditures and varieties of capitalism in East Central Europe. *Journal of Contemporary Central and Eastern Europe*, 33(2), 441–464. https://doi.org/10.1080/25739638.2025.2509243

Davidescu, A. A., Nae, T. M., & Florescu, M.-S. (2022). Exploring the Moderation and Mediation Effects in Addressing the Main Determinants of Income Inequalities in Supporting Quality of Life: Insights from CEE Countries. *International Journal of Environmental Research and Public Health*, 19(14), 8555. https://doi.org/10.3390/ijerph19148555

Dorjnyambuu, B. A. (2025). Systematic Literature Review of Income Inequality in Central–Eastern European Countries. *Comparative Economic Studies*, 67, 1–49. https://doi.org/10.1057/s41294-024-00240-2

Eriksson, T., Pytlikova, M., & Warzynski, F. (2013). Increased sorting and wage inequality in the Czech Republic New evidence using linked employer-employee dataset. *Economics of Transition*, 21(2), 357–380. https://doi.org/10.1111/ecot.12014.

European Commission (2013). Lithuania: National Reform Programme 2013. Vilnius. 110 p. URL: https://commission.europa.eu/document/download/da4dad02-b7c2-4daf-9094-1d9cafb27f7b_en?filename=nrp2013_lithuania_en.pdf&prefLang=de

Eurostat (2025). ICT specialists in employment. URL: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=ICT_specialists_in_employment#ICT_specialists_by_attainment_level_of_education [accessed on 5 August 2025].

Förster, M., Jesuit, D., Smeeding, T. (2002). Regional Poverty and Income Inequality in Central and Eastern Europe: Evidence from the Luxembourg Income Study. LIS Working Paper Series, No. 324, Luxembourg Income Study (LIS), Luxembourg. URL: https://www.econstor.eu/bitstream/10419/160996/1/lis-wps-324.pdf

Förster, M.F., Tóth, I.G. (2015). Cross-country evidence of the multiple causes of inequality changes in the OECD area, in *Handbook of income distribution*, ed. A.B. Atkinson and F. Bourguignon, vol. 2, 1729–1843. Amsterdam: Elsevier.

IMF (2000). Transition Economies: An IMF Perspective on Progress and Prospects. URL: https://www.imf.org/external/np/exr/ib/2000/110300.htm#II

IMF (2012). Czech Republic—2012 Article IV Consultation Concluding Statement. URL: https://www.imf.org/en/News/Articles/2015/09/28/04/52/mcs022712

International Federation of Robotics (2024). World Robotics – Industrial Robots. Available at: https://ifr.org/wr-industrial-robots/ [accessed on 5 August 2025].

Görkey, S. (2022). Income Inequality in Central and Eastern European Countries. Fenerbahce University, *Journal of Social Sciences*, 2(2), 303-316.

Kolasa, A. (2021). Macroeconomic consequences of the demographic and educational changes in Poland after 1990. Macroeconomic Dynamics, 25: 1993–2036. DOI: https://doi.org/10.1017/S1365100519000944

Kuznets, S. (1955). Economic growth and income inequality. *The American Economic Review*, 45 (1), 1-28.

Kwon, R. (2014). Employment transitions and the cycle of income inequality in postindustrial societies. *International Journal of Comparative Sociology*, 55(5), 404-428. DOI: https://doi.org/10.1177/0020715214561133

Lee, E., Vivarelli, M. (2004). *Understanding globalization, employment and poverty reduction*. New York: Palgrave Macmillan.

Leitner, S., Stehrer R. (2014). Drivers of Inequality and Poverty in the CEE and other EU Member States. WIIW Research Report No. 398, 31 p. URL: https://www.wiiw.ac.at/drivers-of-inequality-and-poverty-in-the-cee-and-other-eu-member-states-dlp-3431.pdf

Litwin, B.S. (2015). Determining the Effect of the Minimum Wage on Income Inequality. *Student Publications*, 300. URL: https://cupola.gettysburg.edu/student_scholarship/300

Magda, I., Gromadzki, J., & Moriconi, S. (2021). Firms and wage inequality in Central and Eastern Europe. *Journal of Comparative Economics*, 49(2), 499-552.

Makreshanska, S. (2015). Fiscal Decentralization and Income Inequality – Cross Section Analysis of Central and South-Eastern European Countries. *Economic Development/Ekonomiski Razvoj*, 1-2, 245-260.

Makreshanska-Mladenovska, S., & Petrevski, G. (2018). Decentralisation and Income Inequality in Central and Eastern European countries. *Post-Communist Economies*, 31(1), 123–136. https://doi.org/10.1080/14631377.2018.1461526

May, C., Mertens, D., Nölke, A., & Schedelik, M. (2024). *Political Economy*. Springer Texts in Political Science and International Relations. Springer, Cham. DOI: https://doi.org/10.1007/978-3-031-49665-3

Mehic, A. (2018). Industrial employment and income inequality: Evidence from panel data. *Structural Change and Economic Dynamics*, 45(C), 84-93. DOI: https://doi.org/10.1016/j.strueco.2018.02.006

Mihaylova, S. (2015). Foreign direct investment and income inequality in Central and Eastern Europe. *Theoretical & Applied Economics*, 22(2), 23–42.

Mihaylova, S., & Bratoeva-Manoleva, S. (2018). Structural changes and wage inequality in the Bulgarian economy. *Eastern Journal of European Studies*, 9(2), 205–227.

Milanovic, B. (2016). *Global Inequality: A New Approach for the Age of Globalization*. Cambridge: Harvard University Press. p. 320.

Nae, T. (2019). Income inequalities and economic convergence in CEE countries. *Theoretical and Applied Economics*, 2 (619), 149-156.

Nikolić, S., Novokmet, F. & Larysz, P.P. (2024). Income inequality in Eastern Europe: Bulgaria and Czechoslovakia in the twentieth century. World Inequality Lab, Working Paper 2024/12. URL: https://wid.world/www-site/uploads/2024/04/WorldInequalityLab_WP2024_12_Income-Inequality-in-Eastern-Europe_Final.pdf

OECD (2025a). Income distribution database. DOI: https://doi.org/10.1787/data-00654-en [accessed on 5 August 2025].

OECD (2025b). Collective bargaining coverage. URL: https://data-explorer.oecd.org/vis?lc=en&df[ds]=dsDisseminateFinalDMZ&df[id]=DSD_TUD_CBC%2540DF_CBC&df[ag]=OECD.ELS.SAE&df[vs]=1.0&dq=..&pd=%2C&to[TIME_PERIOD]=false&vw=tb [accessed on 5 August 2025].

OECD (2025c). Adults' educational attainment distribution, by country of birth, age group and gender. URL: https://data-explorer.oecd.org/vis?fs[0]=Topic%2C0%7CEducation%20and%20skills%23EDU%23&fs[1]=Topic%2C1%7CEducation%20and%20skills%23EDU%23%7CEducation%20attainment%23EDU_ATT%23&pg=0&fc=Topic&snb=6&df[ds]=dsDisseminateFinalDMZ&df[id]=DSD_EAG_LSO_EA%40DF_LSO_NEAC_DISTR_EA_MIGR&df[ag]=OECD.EDU.IMEP&df[vs]=1.0&dq=.....A3&pd=%2C&to[TIME_PERIOD]=true&lb=nm [accessed on 5 August 2025].

OECD (2025d). Trade Unions: Trade union density. OECD Employment and Labour Market Statistics (database). DOI: https://doi.org/10.1787/data-00371-en [accessed on 5 August 2025].

OECD (2011). Divided we stand: Why inequality keeps rising. Berlin: OECD Publishing.

Perugini, C., & Pompei, F. (eds) (2015). *Inequalities During and After Transition in Central and Eastern Europe*. New York: Springer.

Petcu, I.-R. (2022). Decomposing income inequality by education in Romania. *Romanian statistical review*, 81–92. St. Louis: Natl Inst Statistics.

Richard S. (2014). Lithuania's entry into the euro zone and its impact on the European Central Bank. Schuman Papers № 338. URL: https://www.robert-schuman.eu/en/european-issues/0338-lithuania-s-entry-into-the-euro-zone-and-its-impact-on-the-european-central-bank

Rose, S. & Viju, C. (2014). Income inequality in post-communist Central and Eastern European countries. *Eastern Journal of European Studies*, vol. 5, 5-20.

Solt, F. (2019). The Standardized World Income Inequality Database, Versions 8-9. Harvard Dataverse, V14. DOI: https://doi.org/10.7910/DVN/LM4OWF

Statistics Estonia (2025). PA111: Average Monthly Gross Wages (Salaries), Median, Deciles and Number of Employees by Indicator, Economic activity and Reference period. URL:

https://andmed.stat.ee/en/stat/majandus__palk-ja-toojeukulu__palk__luhiajastatistika/PA111/table/tableViewLayout2 [accessed on 5 August 2025].

Storchevoi, D. (2024a). The impact of employment in industry on income inequality in Great Britain. *Theoretical & Applied Economics*, *31*(3), 137-148. URL: https://www.ectap.ro/the-impact-of-employment-in-industryon-income-inequality-in-great-britain-daniil-storchevoi/a1770/

Storchevoi, D. (2024b). The Nexus between Income Inequality and Employment in Industry in the USA. *Romanian Economic Journal*, *27*(89), 97-108. URL: https://rejournal.eu/sites/rejournal.versatech.ro/files/articole/2024-12-19/3765/7ystorchevoi.pdf

Storchevoi, D. (2025). The Influence of Changes in Employment Structure on Income Inequality on The Sample of 7 OECD Countries. *Review of Economic and Business Studies*, (35), 41-60. DOI: 10.47743/rebs-2025-1-0003

Svejnar, J., Uvalic, M. (2009). The Czech transition: The importance of microeconomic fundamentals, WIDER Research Paper, No. 2009/17, ISBN 978-92-9230-186-6, The United Nations University World Institute for Development Economics Research (UNU-WIDER), Helsinki.

TheGlobalEconomy.com (2022). Croatia: Tertiary school enrollment. URL: https://www.theglobaleconomy.com/Croatia/Tertiary_school_enrollment/ [accessed on 5 August 2025].

Tóth, I. Gy. (2014). Revisiting Grand Narratives of Growing Income Inequalities: Lessons from 30 Country Studies, in Nolan, B., Salverda, W., D. Checchi, I. Marx, A. Mcknight, I. Gy. Tóth, H. G. van de Werfhorst (eds, 2014). *Changing Inequalities and Societal Impacts in Rich Countries: Thirty Countries Experiences*, pp. 11-47, Oxford: Oxford University Press.

Ursu, A., Sterie, M. C., & Petre, I. L. (2023). The Contribution of the Agricultural Labour Force in Romania to the Sector's Economic Performance. *Sustainability*, 15(24), 16700. https://doi.org/10.3390/su152416700

Večerník, J. (2012). Earnings Disparities and Income Inequality in CEE Countries: An Analysis of Development and Relationships. *Eastern European Economics*, 50(3), 27–48. URL: http://www.jstor.org/stable/41719701

World Bank Group (2025a). Employment in agriculture (% of total employment) (modeled ILO estimate). URL: https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS [accessed on 5 August 2025].

World Bank Group (2025b). Employment in industry (% of total employment) (modeled ILO estimate). URL: https://data.worldbank.org/indicator/SL.IND.EMPL.ZS [accessed on 5 August 2025].

World Bank Group (2025c). GDP growth (annual %) - Latvia, Estonia, Lithuania. URL: https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=LV-EE-LT [accessed on 5 August 2025].

Annex 1. Data on employment structures and market income inequality in the CEE countries

Country	Year	Share of employment in the agricultural sector (from 0 to 1)	Share of employment in the industrial sector (from 0 to 1)	Share of employment in the agricultural and industrial sectors (from 0 to 1)	Gini index, market income, before taxes and transfers (Solt's data, from 0 to 1)	Correlation (employment in the agricultural + industrial sectors and market income inequality)	Correlation (employment in the industrial sector and market income inequality)
Bulgaria	1991	0.1548	0.4320	0.5868	0.415	-0.9101	-0.8661
Bulgaria	1992	0.1505	0.4360	0.5865	0.418		
Bulgaria	1993	0.1513	0.4198	0.5711	0.422		
Bulgaria	1994	0.1522	0.4058	0.5580	0.426		
Bulgaria	1995	0.1524	0.3949	0.5473	0.429		
Bulgaria	1996	0.1494	0.3817	0.5311	0.432		
Bulgaria	1997	0.1449	0.3665	0.5114	0.434		
Bulgaria	1998	0.1406	0.3562	0.4968	0.436		
Bulgaria	1999	0.1378	0.3404	0.4782	0.438		
Bulgaria	2000	0.1320	0.3283	0.4603	0.44		
Bulgaria	2001	0.0969	0.3277	0.4246	0.442		
Bulgaria	2002	0.1071	0.3266	0.4337	0.443		
Bulgaria	2003	0.1114	0.3213	0.4327	0.445		
Bulgaria	2004	0.1075	0.3292	0.4366	0.446		
Bulgaria	2005	0.0894	0.3424	0.4318	0.447		
Bulgaria	2006	0.0811	0.3447	0.4258	0.448		
Bulgaria	2007	0.0754	0.3550	0.4304	0.45		
Bulgaria	2008	0.0747	0.3643	0.4390	0.451		
Bulgaria	2009	0.0709	0.3524	0.4233	0.453		
Bulgaria	2010	0.0681	0.3298	0.3979	0.456		
Bulgaria	2011	0.0678	0.3145	0.3823	0.46		
Bulgaria	2012	0.0644	0.3132	0.3776	0.465		
Bulgaria	2013	0.0666	0.3019	0.3685	0.47		
Bulgaria	2014	0.0701	0.3012	0.3712	0.475		
Bulgaria	2015	0.0686	0.2989	0.3675	0.48		
Bulgaria	2016	0.0675	0.2979	0.3654	0.484		
Bulgaria	2017	0.0701	0.2990	0.3691	0.487		
Bulgaria	2018	0.0658	0.3011	0.3669	0.49		
Bulgaria	2019	0.0662	0.3002	0.3664	0.491		
Bulgaria	2020	0.0659	0.3032	0.3691	0.492		
Bulgaria	2021	0.0629	0.3083	0.3712	0.492		
Bulgaria	2022	0.0644	0.3000	0.3645	0.492		
Romania	1991	0.3933	0.3422	0.7355	0.326	-0.8507	-0.4252
Romania	1992	0.3937	0.3343	0.7281	0.335		

Country	Year	Share of employment in the agricultural sector (from 0 to 1)	Share of employment in the industrial sector (from 0 to 1)	Share of employment in the agricultural and industrial sectors (from 0 to 1)	Gini index, market income, before taxes and transfers (Solt's data, from 0 to 1)	Correlation (employment in the agricultural + industrial sectors and market income inequality)	Correlation (employment in the industrial sector and market income inequality)
Romania	1993	0.3936	0.3287	0.7223	0.347		
Romania	1994	0.3904	0.3285	0.7190	0.359		
Romania	1995	0.4033	0.3095	0.7128	0.371		
Romania	1996	0.3796	0.3152	0.6948	0.376		
Romania	1997	0.4086	0.3030	0.7116	0.38		
Romania	1998	0.4197	0.2877	0.7074	0.396		
Romania	1999	0.4399	0.2707	0.7107	0.41		
Romania	2000	0.4518	0.2580	0.7099	0.422		
Romania	2001	0.4439	0.2586	0.7026	0.434		
Romania	2002	0.3769	0.2959	0.6729	0.443		
Romania	2003	0.3768	0.2914	0.6682	0.45		
Romania	2004	0.3257	0.3106	0.6363	0.457		
Romania	2005	0.3229	0.3045	0.6275	0.462		
Romania	2006	0.3060	0.3071	0.6131	0.466		
Romania	2007	0.2953	0.3141	0.6094	0.465		
Romania	2008	0.2870	0.3160	0.6031	0.463		
Romania	2009	0.2909	0.3002	0.5911	0.461		
Romania	2010	0.3101	0.2832	0.5933	0.462		
Romania	2011	0.2925	0.2856	0.5782	0.464		
Romania	2012	0.2971	0.2821	0.5792	0.463		
Romania	2013	0.2925	0.2828	0.5754	0.465		
Romania	2014	0.2835	0.2893	0.5728	0.47		
Romania	2015	0.2559	0.2846	0.5404	0.472		
Romania	2016	0.2310	0.2988	0.5298	0.473		
Romania	2017	0.2278	0.3012	0.5290	0.476		
Romania	2018	0.2231	0.3003	0.5234	0.477		
Romania	2019	0.2124	0.3007	0.5131	0.476		
Romania	2020	0.2051	0.2973	0.5023	0.474		
Romania	2021	0.1887	0.3230	0.5117	0.47		
Romania	2022	0.1824	0.3241	0.5065	0.468		
Czechia	1991	0.0873	0.4379	0.5252	0.385		
Czechia	1992	0.0850	0.4311	0.5161	0.394		
Czechia	1993	0.0822	0.4255	0.5077	0.399	-0.7085	-0.5980
Czechia	1994	0.0741	0.4207	0.4948	0.41		
Czechia	1995	0.0711	0.4197	0.4908	0.418		

Country	Year	Share of employment in the agricultural sector (from 0 to 1)	Share of employment in the industrial sector (from 0 to 1)	Share of employment in the agricultural and industrial sectors (from 0 to 1)	Gini index, market income, before taxes and transfers (Solt's data, from 0 to 1)	Correlation (employment in the agricultural + industrial sectors and market income inequality)	Correlation (employment in the industrial sector and market income inequality)
Czechia	1996	0.0670	0.4176	0.4846	0.428		
Czechia	1997	0.0625	0.4123	0.4749	0.431		
Czechia	1998	0.0598	0.4076	0.4675	0.434		
Czechia	1999	0.0563	0.4035	0.4599	0.438		
Czechia	2000	0.0530	0.4030	0.4559	0.443		
Czechia	2001	0.0497	0.4025	0.4523	0.449		
Czechia	2002	0.0466	0.4010	0.4476	0.455		
Czechia	2003	0.0437	0.4005	0.4442	0.456		
Czechia	2004	0.0410	0.4023	0.4433	0.457		
Czechia	2005	0.0384	0.4039	0.4423	0.455		
Czechia	2006	0.0360	0.4053	0.4413	0.452		
Czechia	2007	0.0338	0.4064	0.4402	0.45		
Czechia	2008	0.0317	0.4053	0.4370	0.447		
Czechia	2009	0.0312	0.3857	0.4169	0.446		
Czechia	2010	0.0310	0.3799	0.4108	0.447		
Czechia	2011	0.0299	0.3845	0.4144	0.446		
Czechia	2012	0.0305	0.3812	0.4117	0.447		
Czechia	2013	0.0303	0.3751	0.4054	0.45		
Czechia	2014	0.0275	0.3804	0.4079	0.447		
Czechia	2015	0.0293	0.3803	0.4095	0.444		
Czechia	2016	0.0290	0.3807	0.4097	0.442		
Czechia	2017	0.0280	0.3806	0.4086	0.437		
Czechia	2018	0.0280	0.3750	0.4030	0.436		
Czechia	2019	0.0266	0.3725	0.3991	0.436		
Czechia	2020	0.0261	0.3725	0.3986	0.437		
Czechia	2021	0.0255	0.3682	0.3937	0.438		
Czechia	2022	0.0268	0.3689	0.3957	0.438		
Slovakia	1991	0.1119	0.4199	0.5318	0.362		
Slovakia	1992	0.1098	0.4014	0.5112	0.385		
Slovakia	1993	0.1068	0.3948	0.5016	0.386		
Slovakia	1994	0.1017	0.3970	0.4987	0.397		
Slovakia	1995	0.0920	0.3890	0.4810	0.407	0.1325	0.2173
Slovakia	1996	0.0890	0.3954	0.4843	0.418		
Slovakia	1997	0.0917	0.3928	0.4845	0.42		
Slovakia	1998	0.0825	0.3943	0.4768	0.423		

Country	Year	Share of employment in the agricultural sector (from 0 to 1)	Share of employment in the industrial sector (from 0 to 1)	Share of employment in the agricultural and industrial sectors (from 0 to 1)	Gini index, market income, before taxes and transfers (Solt's data, from 0 to 1)	Correlation (employment in the agricultural + industrial sectors and market income inequality)	Correlation (employment in the industrial sector and market income inequality)
Slovakia	1999	0.0737	0.3845	0.4583	0.425		
Slovakia	2000	0.0665	0.3726	0.4391	0.428		
Slovakia	2001	0.0615	0.3760	0.4375	0.43		
Slovakia	2002	0.0618	0.3841	0.4458	0.433		
Slovakia	2003	0.0579	0.3833	0.4413	0.435		
Slovakia	2004	0.0507	0.3908	0.4415	0.437		
Slovakia	2005	0.0475	0.3882	0.4357	0.433		
Slovakia	2006	0.0439	0.3881	0.4320	0.423		
Slovakia	2007	0.0421	0.3938	0.4359	0.418		
Slovakia	2008	0.0396	0.4012	0.4408	0.416		
Slovakia	2009	0.0359	0.3793	0.4151	0.418		
Slovakia	2010	0.0323	0.3706	0.4030	0.418		
Slovakia	2011	0.0308	0.3749	0.4058	0.413		
Slovakia	2012	0.0324	0.3754	0.4078	0.409		
Slovakia	2013	0.0332	0.3582	0.3913	0.408		
Slovakia	2014	0.0317	0.3615	0.3931	0.402		
Slovakia	2015	0.0310	0.3621	0.3931	0.397		
Slovakia	2016	0.0289	0.3647	0.3935	0.391		
Slovakia	2017	0.0271	0.3716	0.3986	0.385		
Slovakia	2018	0.0230	0.3650	0.3880	0.381		
Slovakia	2019	0.0279	0.3610	0.3888	0.375		
Slovakia	2020	0.0258	0.3655	0.3914	0.373		
Slovakia	2021	0.0321	0.3648	0.3970	0.37		
Slovakia	2022	0.0254	0.3584	0.3838	0.369		
Slovenia	1991	0.1136	0.4534	0.5670	0.371		
Slovenia	1992	0.1097	0.4480	0.5577	0.375		
Slovenia	1993	0.1066	0.4419	0.5486	0.377		
Slovenia	1994	0.1157	0.4238	0.5396	0.377		
Slovenia	1995	0.1044	0.4313	0.5358	0.378		
Slovenia	1996	0.1015	0.4202	0.5218	0.377	-0.8693	-0.9134
Slovenia	1997	0.1200	0.4056	0.5256	0.377		
Slovenia	1998	0.1196	0.3956	0.5152	0.379		
Slovenia	1999	0.1077	0.3783	0.4861	0.38		
Slovenia	2000	0.0958	0.3766	0.4724	0.385		
Slovenia	2001	0.0990	0.3865	0.4855	0.388		

Country	Year	Share of employment in the agricultural sector (from 0 to 1)	Share of employment in the industrial sector (from 0 to 1)	Share of employment in the agricultural and industrial sectors (from 0 to 1)	Gini index, market income, before taxes and transfers (Solt's data, from 0 to 1)	Correlation (employment in the agricultural + industrial sectors and market income inequality)	Correlation (employment in the industrial sector and market income inequality)
Slovenia	2002	0.0958	0.3879	0.4837	0.391		
Slovenia	2003	0.0840	0.3714	0.4554	0.394		
Slovenia	2004	0.0969	0.3638	0.4608	0.397		
Slovenia	2005	0.0898	0.3712	0.4610	0.399		
Slovenia	2006	0.0949	0.3553	0.4502	0.4		
Slovenia	2007	0.0971	0.3531	0.4503	0.4		
Slovenia	2008	0.0843	0.3518	0.4361	0.401		
Slovenia	2009	0.0894	0.3322	0.4217	0.408		
Slovenia	2010	0.0867	0.3264	0.4130	0.414		
Slovenia	2011	0.0843	0.3172	0.4015	0.418		
Slovenia	2012	0.0827	0.3101	0.3928	0.425		
Slovenia	2013	0.0839	0.3107	0.3946	0.424		
Slovenia	2014	0.0939	0.3102	0.4041	0.423		
Slovenia	2015	0.0695	0.3205	0.3900	0.422		
Slovenia	2016	0.0494	0.3320	0.3815	0.415		
Slovenia	2017	0.0546	0.3329	0.3875	0.411		
Slovenia	2018	0.0533	0.3341	0.3873	0.409		
Slovenia	2019	0.0424	0.3412	0.3836	0.406		
Slovenia	2020	0.0401	0.3407	0.3808	0.404		
Slovenia	2021	0.0400	0.3004	0.3403	0.402		
Slovenia	2022	0.0427	0.3018	0.3445	0.402		
Croatia	1991	0.2282	0.3001	0.5283	0.426		
Croatia	1992	0.2248	0.2966	0.5214	0.427		
Croatia	1993	0.2185	0.2973	0.5158	0.428		
Croatia	1994	0.2121	0.2958	0.5080	0.429		
Croatia	1995	0.2060	0.2922	0.4982	0.43		
Croatia	1996	0.1989	0.2914	0.4903	0.431		
Croatia	1997	0.1777	0.2954	0.4731	0.431	-0.9326	-0.7901
Croatia	1998	0.1732	0.2946	0.4677	0.432		
Croatia	1999	0.1691	0.2911	0.4602	0.432		
Croatia	2000	0.1645	0.2926	0.4572	0.432		
Croatia	2001	0.1597	0.2972	0.4569	0.432		
Croatia	2002	0.1555	0.2982	0.4537	0.433		
Croatia	2003	0.1687	0.3025	0.4712	0.433		
Croatia	2004	0.1697	0.2964	0.4661	0.434		

Country	Year	Share of employment in the agricultural sector (from 0 to 1)	Share of employment in the industrial sector (from 0 to 1)	Share of employment in the agricultural and industrial sectors (from 0 to 1)	Gini index, market income, before taxes and transfers (Solt's data, from 0 to 1)	Correlation (employment in the agricultural + industrial sectors and market income inequality)	Correlation (employment in the industrial sector and market income inequality)
Croatia	2005	0.1730	0.2863	0.4593	0.435		
Croatia	2006	0.1424	0.2935	0.4359	0.437		
Croatia	2007	0.1235	0.3064	0.4300	0.439		
Croatia	2008	0.1282	0.3085	0.4367	0.442		
Croatia	2009	0.1332	0.2901	0.4233	0.445		
Croatia	2010	0.1425	0.2745	0.4171	0.447		
Croatia	2011	0.1459	0.2795	0.4254	0.449		
Croatia	2012	0.1225	0.2791	0.4017	0.451		
Croatia	2013	0.1079	0.2763	0.3841	0.452		
Croatia	2014	0.0952	0.2698	0.3650	0.453		
Croatia	2015	0.0923	0.2671	0.3594	0.452		
Croatia	2016	0.0760	0.2697	0.3458	0.452		
Croatia	2017	0.0698	0.2642	0.3339	0.451		
Croatia	2018	0.0624	0.2742	0.3366	0.45		
Croatia	2019	0.0619	0.2767	0.3386	0.449		
Croatia	2020	0.0647	0.2824	0.3470	0.449		
Croatia	2021	0.0680	0.2877	0.3557	0.449		
Croatia	2022	0.0589	0.2837	0.3426	0.449		
Hungary	1991	0.1385	0.3495	0.4880	0.455		
Hungary	1992	0.1128	0.3509	0.4637	0.466		
Hungary	1993	0.0913	0.3378	0.4291	0.475		
Hungary	1994	0.0873	0.3299	0.4172	0.487		
Hungary	1995	0.0802	0.3257	0.4059	0.491		
Hungary	1996	0.0822	0.3324	0.4146	0.493		
Hungary	1997	0.0781	0.3323	0.4104	0.493		
Hungary	1998	0.0734	0.3478	0.4212	0.495		
Hungary	1999	0.0695	0.3435	0.4131	0.499	-0.8390	-0.5798
Hungary	2000	0.0646	0.3377	0.4024	0.499		
Hungary	2001	0.0619	0.3442	0.4061	0.499		
Hungary	2002	0.0612	0.3414	0.4026	0.5		
Hungary	2003	0.0538	0.3340	0.3878	0.503		
Hungary	2004	0.0526	0.3295	0.3821	0.505		
Hungary	2005	0.0487	0.3248	0.3734	0.505		
Hungary	2006	0.0476	0.3232	0.3708	0.503		
Hungary	2007	0.0459	0.3251	0.3710	0.502		

Country	Year	Share of employment in the agricultural sector (from 0 to 1)	Share of employment in the industrial sector (from 0 to 1)	Share of employment in the agricultural and industrial sectors (from 0 to 1)	Gini index, market income, before taxes and transfers (Solt's data, from 0 to 1)	Correlation (employment in the agricultural + industrial sectors and market income inequality)	Correlation (employment in the industrial sector and market income inequality)
Hungary	2008	0.0431	0.3222	0.3654	0.501		
Hungary	2009	0.0461	0.3116	0.3577	0.504		
Hungary	2010	0.0454	0.3070	0.3524	0.503		
Hungary	2011	0.0489	0.3084	0.3572	0.504		
Hungary	2012	0.0506	0.2979	0.3486	0.507		
Hungary	2013	0.0478	0.2990	0.3467	0.506		
Hungary	2014	0.0468	0.3050	0.3518	0.503		
Hungary	2015	0.0490	0.3033	0.3523	0.5		
Hungary	2016	0.0504	0.3044	0.3548	0.5		
Hungary	2017	0.0504	0.3152	0.3656	0.5		
Hungary	2018	0.0485	0.3242	0.3727	0.498		
Hungary	2019	0.0472	0.3209	0.3681	0.497		
Hungary	2020	0.0476	0.3190	0.3666	0.495		
Hungary	2021	0.0439	0.3143	0.3582	0.495		
Hungary	2022	0.0436	0.3136	0.3572	0.495		
Latvia	1991	0.2321	0.2884	0.5205	0.407		
Latvia	1992	0.2278	0.2834	0.5112	0.41		
Latvia	1993	0.2233	0.2762	0.4995	0.414		
Latvia	1994	0.2179	0.2756	0.4935	0.42		
Latvia	1995	0.2122	0.2720	0.4842	0.426		
Latvia	1996	0.2049	0.2706	0.4755	0.431		
Latvia	1997	0.1979	0.2712	0.4691	0.437		
Latvia	1998	0.1903	0.2705	0.4608	0.443		
Latvia	1999	0.1749	0.2576	0.4325	0.447		
Latvia	2000	0.1493	0.2676	0.4168	0.452		
Latvia	2001	0.1547	0.2627	0.4174	0.457	-0.8757	-0.5815
Latvia	2002	0.1623	0.2553	0.4176	0.462		
Latvia	2003	0.1424	0.2707	0.4132	0.466		
Latvia	2004	0.1330	0.2694	0.4024	0.469		
Latvia	2005	0.1205	0.2648	0.3853	0.471		
Latvia	2006	0.1146	0.2737	0.3883	0.473		
Latvia	2007	0.1018	0.2863	0.3881	0.474		
Latvia	2008	0.0796	0.2940	0.3736	0.475		
Latvia	2009	0.0875	0.2434	0.3309	0.475		
Latvia	2010	0.0861	0.2307	0.3169	0.475		

Country	Year	Share of employment in the agricultural sector (from 0 to 1)	Share of employment in the industrial sector (from 0 to 1)	Share of employment in the agricultural and industrial sectors (from 0 to 1)	Gini index, market income, before taxes and transfers (Solt's data, from 0 to 1)	Correlation (employment in the agricultural + industrial sectors and market income inequality)	Correlation (employment in the industrial sector and market income inequality)
Latvia	2011	0.0890	0.2291	0.3180	0.474		
Latvia	2012	0.0837	0.2348	0.3185	0.473		
Latvia	2013	0.0806	0.2392	0.3198	0.472		
Latvia	2014	0.0750	0.2385	0.3135	0.471		
Latvia	2015	0.0794	0.2365	0.3158	0.47		
Latvia	2016	0.0769	0.2411	0.3181	0.469		
Latvia	2017	0.0687	0.2331	0.3017	0.468		
Latvia	2018	0.0697	0.2366	0.3063	0.468		
Latvia	2019	0.0729	0.2372	0.3101	0.467		
Latvia	2020	0.0722	0.2364	0.3086	0.467		
Latvia	2021	0.0679	0.2351	0.3030	0.467		
Latvia	2022	0.0678	0.2364	0.3042	0.467		
Lithuania	1991	0.2434	0.2933	0.5368	0.427		
Lithuania	1992	0.2393	0.2882	0.5275	0.434		
Lithuania	1993	0.2343	0.2876	0.5219	0.441		
Lithuania	1994	0.2272	0.2868	0.5140	0.448		
Lithuania	1995	0.2220	0.2839	0.5059	0.453		
Lithuania	1996	0.2157	0.2830	0.4987	0.457		
Lithuania	1997	0.2066	0.2852	0.4918	0.461		
Lithuania	1998	0.1956	0.2907	0.4863	0.464		
Lithuania	1999	0.1999	0.2707	0.4706	0.468		
Lithuania	2000	0.1924	0.2678	0.4602	0.472		
Lithuania	2001	0.1757	0.2664	0.4421	0.476		
Lithuania	2002	0.1864	0.2737	0.4601	0.479	-0.9484	-0.6507
Lithuania	2003	0.1871	0.2724	0.4595	0.485		
Lithuania	2004	0.1628	0.2820	0.4449	0.491		
Lithuania	2005	0.1427	0.2906	0.4333	0.493		
Lithuania	2006	0.1383	0.2957	0.4340	0.492		
Lithuania	2007	0.1133	0.3055	0.4187	0.495		
Lithuania	2008	0.0806	0.3052	0.3858	0.503		
Lithuania	2009	0.0898	0.2685	0.3583	0.51		
Lithuania	2010	0.0883	0.2456	0.3339	0.514		
Lithuania	2011	0.0849	0.2456	0.3304	0.514		
Lithuania	2012	0.0880	0.2508	0.3388	0.516		
Lithuania	2013	0.0842	0.2553	0.3395	0.514		

Country	Year	Share of employment in the agricultural sector (from 0 to 1)	Share of employment in the industrial sector (from 0 to 1)	Share of employment in the agricultural and industrial sectors (from 0 to 1)	Gini index, market income, before taxes and transfers (Solt's data, from 0 to 1)	Correlation (employment in the agricultural + industrial sectors and market income inequality)	Correlation (employment in the industrial sector and market income inequality)
Lithuania	2014	0.0917	0.2472	0.3389	0.514		
Lithuania	2015	0.0907	0.2507	0.3414	0.513		
Lithuania	2016	0.0798	0.2514	0.3311	0.511		
Lithuania	2017	0.0778	0.2513	0.3292	0.509		
Lithuania	2018	0.0718	0.2577	0.3295	0.508		
Lithuania	2019	0.0644	0.2570	0.3214	0.507		
Lithuania	2020	0.0569	0.2536	0.3105	0.508		
Lithuania	2021	0.0531	0.2625	0.3157	0.509		
Lithuania	2022	0.0546	0.2573	0.3118	0.509		
Estonia	1991	0.1925	0.3704	0.5630	0.448	0.0198	0.1857
Estonia	1992	0.1809	0.3600	0.5408	0.456		
Estonia	1993	0.1600	0.3325	0.4925	0.464		
Estonia	1994	0.1416	0.3249	0.4665	0.47		
Estonia	1995	0.1018	0.3423	0.4441	0.475		
Estonia	1996	0.0972	0.3365	0.4337	0.479		
Estonia	1997	0.0969	0.3344	0.4313	0.484		
Estonia	1998	0.0930	0.3295	0.4225	0.488		
Estonia	1999	0.0858	0.3164	0.4022	0.49		
Estonia	2000	0.0636	0.3499	0.4135	0.49		
Estonia	2001	0.0634	0.3375	0.4010	0.491		
Estonia	2002	0.0660	0.2980	0.3640	0.49		
Estonia	2003	0.0624	0.3070	0.3694	0.49		
Estonia	2004	0.0506	0.3395	0.3902	0.488		
Estonia	2005	0.0519	0.3407	0.3927	0.483		
Estonia	2006	0.0506	0.3354	0.3861	0.477		
Estonia	2007	0.0478	0.3513	0.3990	0.47		
Estonia	2008	0.0390	0.3527	0.3917	0.469		
Estonia	2009	0.0405	0.3144	0.3550	0.47		
Estonia	2010	0.0422	0.3032	0.3453	0.475		
Estonia	2011	0.0441	0.3243	0.3685	0.477		
Estonia	2012	0.0449	0.3110	0.3560	0.48		
Estonia	2013	0.0426	0.3027	0.3454	0.484		
Estonia	2014	0.0386	0.3015	0.3401	0.478		
Estonia	2015	0.0403	0.3127	0.3530	0.47		
Estonia	2016	0.0390	0.3022	0.3412	0.461		

Country	Year	Share of employment in the agricultural sector (from 0 to 1)	Share of employment in the industrial sector (from 0 to 1)	Share of employment in the agricultural and industrial sectors (from 0 to 1)	Gini index, market income, before taxes and transfers (Solt's data, from 0 to 1)	Correlation (employment in the agricultural + industrial sectors and market income inequality)	Correlation (employment in the industrial sector and market income inequality)
Estonia	2017	0.0363	0.3017	0.3380	0.455		
Estonia	2018	0.0343	0.3016	0.3359	0.452		
Estonia	2019	0.0334	0.2938	0.3272	0.451		
Estonia	2020	0.0308	0.2971	0.3280	0.452		
Estonia	2021	0.0268	0.2902	0.3170	0.454		
Estonia	2022	0.0260	0.2861	0.3121	0.454		
Poland	1991	0.2552	0.3290	0.5842	0.383		
Poland	1992	0.2493	0.3245	0.5738	0.4		
Poland	1993	0.2424	0.3224	0.5648	0.418		
Poland	1994	0.2345	0.3185	0.5530	0.437		
Poland	1995	0.2261	0.3190	0.5452	0.461		
Poland	1996	0.2211	0.3187	0.5398	0.453		
Poland	1997	0.2059	0.3232	0.5291	0.454		
Poland	1998	0.1982	0.3216	0.5198	0.458		
Poland	1999	0.1916	0.3172	0.5088	0.466		
Poland	2000	0.1867	0.3106	0.4973	0.471		
Poland	2001	0.1920	0.3073	0.4993	0.476		
Poland	2002	0.1963	0.2854	0.4817	0.485		
Poland	2003	0.1819	0.2855	0.4674	0.498		
Poland	2004	0.1760	0.2904	0.4664	0.512		
Poland	2005	0.1738	0.2925	0.4663	0.511	-0.7021	-0.7283
Poland	2006	0.1579	0.2998	0.4577	0.503		
Poland	2007	0.1474	0.3072	0.4547	0.493		
Poland	2008	0.1397	0.3189	0.4586	0.484		
Poland	2009	0.1328	0.3111	0.4440	0.483		
Poland	2010	0.1305	0.3030	0.4336	0.485		
Poland	2011	0.1291	0.3067	0.4358	0.486		
Poland	2012	0.1258	0.3042	0.4299	0.487		
Poland	2013	0.1200	0.3054	0.4254	0.486		
Poland	2014	0.1149	0.3054	0.4203	0.481		
Poland	2015	0.1153	0.3054	0.4207	0.476		
Poland	2016	0.1058	0.3145	0.4203	0.476		
Poland	2017	0.1022	0.3167	0.4189	0.477		
Poland	2018	0.0962	0.3182	0.4143	0.48		
Poland	2019	0.0915	0.3213	0.4129	0.48		

Country	Year	Share of employment in the agricultural sector (from 0 to 1)	Share of employment in the industrial sector (from 0 to 1)	Share of employment in the agricultural and industrial sectors (from 0 to 1)	Gini index, market income, before taxes and transfers (Solt's data, from 0 to 1)	Correlation (employment in the agricultural + industrial sectors and market income inequality)	Correlation (employment in the industrial sector and market income inequality)
Poland	2020	0.0959	0.3168	0.4127	0.478		
Poland	2021	0.0840	0.3093	0.3933	0.468		
Poland	2022	0.0825	0.3083	0.3909	0.467		

Sources: Solt (2019), World Bank, 2025a, 2025b.

Annex 2. Data on employment structures, trade union density, collective bargaining coverage, tertiary education attainment and market income inequality in the CEE countries[10]

Country	Year	Share of employment in the agricultural sector (from 0 to 1)	Share of employment in the industrial sector (from 0 to 1)	Share of employment in the agricultural and industrial sectors (from 0 to 1)	Trade unions density (from 0 to 1)	Collective bargaining coverage (from 0 to 1)	Share of population (25-64 years old) with tertiary education (from 0 to 1)	Gini index, market income, before taxes and transfers (OECD data, from 0 to 1)
Czechia	2004	0.0410	0.4023	0.4433	0.206	0.404	0.1235	0.467
Czechia	2005	0.0384	0.4039	0.4423	0.191	0.382	0.1306	0.461
Czechia	2006	0.0360	0.4053	0.4413	0.181	0.37	0.1352	0.460
Czechia	2007	0.0338	0.4064	0.4402	0.174	0.364	0.1373	0.450
Czechia	2008	0.0317	0.4053	0.4370	0.169	0.382	0.1450	0.444
Czechia	2009	0.0312	0.3857	0.4169	0.167	0.38	0.1554	0.445
Czechia	2010	0.0310	0.3799	0.4108	0.161	0.36	0.1676	0.449
Czechia	2011	0.0299	0.3845	0.4144	0.154	0.369	0.1824	0.455
Czechia	2012	0.0305	0.3812	0.4117	0.148	0.367	0.1928	0.453
Czechia	2013	0.0303	0.3751	0.4054	0.136	0.364	0.2046	0.461
Czechia	2014	0.0275	0.3804	0.4079	0.129	0.343	0.2151	0.460
Czechia	2015	0.0293	0.3803	0.4095	0.119	0.342	0.2219	0.460
Czechia	2016	0.0290	0.3807	0.4097	0.119	0.329	0.2297	0.448
Czechia	2017	0.0280	0.3806	0.4086	0.117	0.336	0.2393	0.435
Czechia	2018	0.0280	0.3750	0.4030	0.114	0.342	0.2426	0.431
Czechia	2019	0.0266	0.3725	0.3991	0.110	0.347	0.2421	0.432
Czechia	2020	0.0261	0.3725	0.3986	0.110	0.35	0.2485	0.449
Czechia	2021	0.0255	0.3682	0.3937	0.110	0.35	0.2654	0.438
Czechia	2022	0.0268	0.3689	0.3957	0.110	0.35	0.2667	0.432

[10] For some years with missing data, average / approximate values were taken.

Country	Year	Share of employment in the agricultural sector (from 0 to 1)	Share of employment in the industrial sector (from 0 to 1)	Share of employment in the agricultural and industrial sectors (from 0 to 1)	Trade unions density (from 0 to 1)	Collective bargaining coverage (from 0 to 1)	Share of population (25-64 years old) with tertiary education (from 0 to 1)	Gini index, market income, before taxes and transfers (OECD data, from 0 to 1)
Hungary	2006	0.0476	0.3232	0.3708	0.173	0.227	0.1770	0.508
Hungary	2007	0.0459	0.3251	0.3710	0.163	0.246	0.1805	0.513
Hungary	2008	0.0431	0.3222	0.3654	0.153	0.228	0.1920	0.502
Hungary	2009	0.0461	0.3116	0.3577	0.146	0.269	0.1986	0.499
Hungary	2010	0.0454	0.3070	0.3524	0.139	0.273	0.2012	0.506
Hungary	2011	0.0489	0.3084	0.3572	0.132	0.264	0.2112	0.507
Hungary	2012	0.0506	0.2979	0.3486	0.125	0.269	0.2205	0.508
Hungary	2013	0.0478	0.2990	0.3467	0.118	0.255	0.2251	0.521
Hungary	2014	0.0468	0.3050	0.3518	0.110	0.254	0.2336	0.492
Hungary	2015	0.0490	0.3033	0.3523	0.101	0.283	0.2424	0.494
Hungary	2016	0.0504	0.3044	0.3548	0.092	0.281	0.2371	0.482
Hungary	2017	0.0504	0.3152	0.3656	0.088	0.233	0.2405	0.478
Hungary	2018	0.0485	0.3242	0.3727	0.083	0.211	0.2510	0.464
Hungary	2019	0.0472	0.3209	0.3681	0.080	0.218	0.2598	0.463
Hungary	2020	0.0476	0.3190	0.3666	0.080	0.22	0.2720	0.443
Hungary	2021	0.0439	0.3143	0.3582	0.080	0.22	0.2930	0.443
Hungary	2022	0.0436	0.3136	0.3572	0.080	0.22	0.2941	0.417
Poland	2005	0.1738	0.2925	0.4663	0.238	0.19	0.1693	0.522
Poland	2006	0.1579	0.2998	0.4577	0.179	0.19	0.1789	0.498
Poland	2007	0.1474	0.3072	0.4547	0.167	0.189	0.1869	0.484
Poland	2008	0.1397	0.3189	0.4586	0.157	0.187	0.1957	0.469
Poland	2009	0.1328	0.3111	0.4440	0.154	0.1865	0.2115	0.464
Poland	2010	0.1305	0.3030	0.4336	0.174	0.186	0.2247	0.465
Poland	2011	0.1291	0.3067	0.4358	0.173	0.181	0.2328	0.462
Poland	2012	0.1258	0.3042	0.4299	0.166	0.177	0.2451	0.461
Poland	2013	0.1200	0.3054	0.4254	0.1655	0.175	0.2576	0.462
Poland	2014	0.1149	0.3054	0.4203	0.165	0.175	0.2700	0.463
Poland	2015	0.1153	0.3054	0.4207	0.153	0.173	0.2775	0.452
Poland	2016	0.1058	0.3145	0.4203	0.141	0.163	0.2871	0.458
Poland	2017	0.1022	0.3167	0.4189	0.134	0.153	0.2992	0.447
Poland	2018	0.0962	0.3182	0.4143	0.12	0.143	0.3092	0.452
Poland	2019	0.0915	0.3213	0.4129	0.11	0.134	0.3201	0.437
Poland	2020	0.0959	0.3168	0.4127	0.1	0.13	0.3288	0.434
Poland	2021	0.0840	0.3093	0.3933	0.09	0.13	0.3323	0.426

Country	Year	Share of employment in the agricultural sector (from 0 to 1)	Share of employment in the industrial sector (from 0 to 1)	Share of employment in the agricultural and industrial sectors (from 0 to 1)	Trade unions density (from 0 to 1)	Collective bargaining coverage (from 0 to 1)	Share of population (25-64 years old) with tertiary education (from 0 to 1)	Gini index, market income, before taxes and transfers (OECD data, from 0 to 1)
Poland	2022	0.0825	0.3083	0.3909	0.08	0.13	0.3392	0.441
Slovakia	2004	0.0507	0.3908	0.4415	0.254	0.4	0.1278	0.455
Slovakia	2005	0.0475	0.3882	0.4357	0.235	0.4	0.1400	0.456
Slovakia	2006	0.0439	0.3881	0.4320	0.206	0.4	0.1457	0.424
Slovakia	2007	0.0421	0.3938	0.4359	0.187	0.4	0.1444	0.416
Slovakia	2008	0.0396	0.4012	0.4408	0.168	0.4	0.1476	0.412
Slovakia	2009	0.0359	0.3793	0.4151	0.16	0.4	0.1576	0.433
Slovakia	2010	0.0323	0.3706	0.4030	0.164	0.35	0.1733	0.430
Slovakia	2011	0.0308	0.3749	0.4058	0.145	0.35	0.1862	0.416
Slovakia	2012	0.0324	0.3754	0.4078	0.145	0.3235	0.1898	0.409
Slovakia	2013	0.0332	0.3582	0.3913	0.141	0.297	0.1988	0.427
Slovakia	2014	0.0317	0.3615	0.3931	0.134	0.2705	0.2038	0.396
Slovakia	2015	0.0310	0.3621	0.3931	0.126	0.244	0.2115	0.400
Slovakia	2016	0.0289	0.3647	0.3935	0.118	0.24	0.2198	0.398
Slovakia	2017	0.0271	0.3716	0.3986	0.115	0.24	0.2310	0.378
Slovakia	2018	0.0230	0.3650	0.3880	0.113	0.24	0.2458	0.387
Slovakia	2019	0.0279	0.3610	0.3888	0.111	0.24	0.2579	0.383
Slovakia	2020	0.0258	0.3655	0.3914	0.109	0.24	0.2677	0.396
Slovakia	2021	0.0321	0.3648	0.3970	0.107	0.24	0.2791	0.384
Slovakia	2022	0.0254	0.3584	0.3838	0.105	0.24	0.2922	0.387
Slovenia	2004	0.0969	0.3638	0.4608	0.371	1	0.1904	0.438
Slovenia	2005	0.0898	0.3712	0.4610	0.375	1	0.2017	0.437
Slovenia	2006	0.0949	0.3553	0.4502	0.322	1	0.2139	0.432
Slovenia	2007	0.0971	0.3531	0.4503	0.306	1	0.2223	0.424
Slovenia	2008	0.0843	0.3518	0.4361	0.297	1	0.2264	0.416
Slovenia	2009	0.0894	0.3322	0.4217	0.404	0.7	0.2332	0.444
Slovenia	2010	0.0867	0.3264	0.4130	0.326	0.7	0.2372	0.448
Slovenia	2011	0.0843	0.3172	0.4015	0.367	0.7	0.2509	0.452
Slovenia	2012	0.0827	0.3101	0.3928	0.268	0.65	0.2644	0.463
Slovenia	2013	0.0839	0.3107	0.3946	0.262	0.654	0.2788	0.464
Slovenia	2014	0.0939	0.3102	0.4041	0.294	0.692	0.2860	0.459
Slovenia	2015	0.0695	0.3205	0.3900	0.238	0.675	0.3017	0.456
Slovenia	2016	0.0494	0.3320	0.3815	0.204	0.709	0.3074	0.450
Slovenia	2017	0.0546	0.3329	0.3875	0.195	0.786	0.3430	0.445

Country	Year	Share of employment in the agricultural sector (from 0 to 1)	Share of employment in the industrial sector (from 0 to 1)	Share of employment in the agricultural and industrial sectors (from 0 to 1)	Trade unions density (from 0 to 1)	Collective bargaining coverage (from 0 to 1)	Share of population (25-64 years old) with tertiary education (from 0 to 1)	Gini index, market income, before taxes and transfers (OECD data, from 0 to 1)
Slovenia	2018	0.0533	0.3341	0.3873	0.186	0.79	0.3246	0.443
Slovenia	2019	0.0424	0.3412	0.3836	0.178	0.79	0.3328	0.444
Slovenia	2020	0.0401	0.3407	0.3808	0.17	0.79	0.3588	0.437
Slovenia	2021	0.0400	0.3004	0.3403	0.16	0.79	0.4030	0.435
Slovenia	2022	0.0427	0.3018	0.3445	0.15	0.79	0.4011	0.428
Lithuania	2004	0.1628	0.2820	0.4449	0.11	0.195	0.2630	0.508
Lithuania	2005	0.1427	0.2906	0.4333	0.11	0.195	0.2655	0.506
Lithuania	2006	0.1383	0.2957	0.4340	0.098	0.194	0.2675	0.466
Lithuania	2007	0.1133	0.3055	0.4187	0.093	0.184	0.2893	0.469
Lithuania	2008	0.0806	0.3052	0.3858	0.089	0.176	0.3041	0.502
Lithuania	2009	0.0898	0.2685	0.3583	0.1	0.198	0.3096	0.531
Lithuania	2010	0.0883	0.2456	0.3339	0.101	0.201	0.3244	0.529
Lithuania	2011	0.0849	0.2456	0.3304	0.097	0.193	0.3349	0.507
Lithuania	2012	0.0880	0.2508	0.3388	0.09	0.179	0.3405	0.530
Lithuania	2013	0.0842	0.2553	0.3395	0.084	0.166	0.3520	0.510
Lithuania	2014	0.0917	0.2472	0.3389	0.081	0.162	0.3667	0.532
Lithuania	2015	0.0907	0.2507	0.3414	0.079	0.156	0.3872	0.514
Lithuania	2016	0.0798	0.2514	0.3311	0.077	0.152	0.3973	0.514
Lithuania	2017	0.0778	0.2513	0.3292	0.077	0.153	0.4027	0.510
Lithuania	2018	0.0718	0.2577	0.3295	0.071	0.141	0.4165	0.503
Lithuania	2019	0.0644	0.2570	0.3214	0.074	0.142	0.4315	0.495
Lithuania	2020	0.0569	0.2536	0.3105	0.074	0.175	0.4414	0.504
Lithuania	2021	0.0531	0.2625	0.3157	0.074	0.266	0.4534	0.514
Lithuania	2022	0.0546	0.2573	0.3118	0.074	0.27	0.4653	0.512
Estonia	2013	0.0426	0.3027	0.3454	0.056	0.2	0.3735	0.508
Estonia	2014	0.0386	0.3015	0.3401	0.053	0.19	0.3750	0.488
Estonia	2015	0.0403	0.3127	0.3530	0.045	0.186	0.3803	0.470
Estonia	2016	0.0390	0.3022	0.3412	0.05	0.186	0.3876	0.455
Estonia	2017	0.0363	0.3017	0.3380	0.047	0.186	0.3966	0.445
Estonia	2018	0.0343	0.3016	0.3359	0.059	0.186	0.4113	0.440
Estonia	2019	0.0334	0.2938	0.3272	0.06	0.186	0.4137	0.465
Estonia	2020	0.0308	0.2971	0.3280	0.06	0.186	0.4221	0.470
Estonia	2021	0.0268	0.2902	0.3170	0.06	0.191	0.4123	0.465
Estonia	2022	0.0260	0.2861	0.3121	0.06	0.19	0.4210	0.469

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Latvia	2006	0.1146	0.2737	0.3883	0.18	0.342	0.2092	0.458
Latvia	2007	0.1018	0.2863	0.3881	0.167	0.3355	0.2218	0.471
Latvia	2008	0.0796	0.2940	0.3736	0.152	0.3355	0.2482	0.481
Latvia	2009	0.0875	0.2434	0.3309	0.152	0.3355	0.2585	0.503
Latvia	2010	0.0861	0.2307	0.3169	0.151	0.329	0.2695	0.516
Latvia	2011	0.0890	0.2291	0.3180	0.137	0.3265	0.2769	0.512
Latvia	2012	0.0837	0.2348	0.3185	0.132	0.3265	0.2923	0.502
Latvia	2013	0.0806	0.2392	0.3198	0.129	0.3265	0.3101	0.496
Latvia	2014	0.0750	0.2385	0.3135	0.128	0.324	0.3023	0.484
Latvia	2015	0.0794	0.2365	0.3158	0.127	0.2975	0.3159	0.475
Latvia	2016	0.0769	0.2411	0.3181	0.124	0.2975	0.3336	0.473
Latvia	2017	0.0687	0.2331	0.3017	0.123	0.2975	0.3388	0.481
Latvia	2018	0.0697	0.2366	0.3063	0.116	0.271	0.3394	0.479
Latvia	2019	0.0729	0.2372	0.3101	0.114	0.27	0.3571	0.470
Latvia	2020	0.0722	0.2364	0.3086	0.112	0.27	0.3783	0.483
Latvia	2021	0.0679	0.2351	0.3030	0.11	0.27	0.3900	0.474
Latvia	2022	0.0678	0.2364	0.3042	0.11	0.27	0.3947	0.474

Sources: OECD, 2025c, 2025b, 2025a, 2025d; World Bank, 2025a, 2025b.