

## THE INFLUENCE OF FISCAL POLICY ON INCOME INEQUALITY IN EUROPEAN UNION'S MEMBER STATES

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**Abstract:** Poor growth performance over the past decades in Europe has increased concerns for rising income discrepancies and social exclusion. European authorities have recently launched the Europe 2020 strategy which aims to improve social inclusion in Europe on top of already existing European regional policies aiming to reduce regional disparities through stimulating growth in areas where incomes are relatively low. While it is most common to confine measures of inequality to national borders, the existence of such union-wide objectives and policies motivates measuring income dispersion among all Europeans in this paper. Fiscal policy is a powerful tool that changes the distribution of income in either direction, up or down. In this context, the present paper reviews the evolution of income inequality in EU member countries and figures out how fiscal policy (direct taxes) has influenced these outcomes. The paper also examines the contributions of both tax and expenditure policies in reducing income inequality in the EU, highlighting fiscal policy's impact in different EU member countries.

**Keywords:** fiscal policy, direct taxes, income inequalities, gini coefficient, social contributions.

**JEL Classification:** E62, H23, O23.

### Introduction

In the recent decade, the issue of income inequality, wealth and fiscal policy has become a researched topic of increasing interest. This is motivated by the growing disparities in terms of income distribution, the erosion of free market argument, rationality hypothesis or assumption of perfect competition, which express the image of a fictitious economy composed of isolated individuals pursuing their own interests, without taking into account how and in which way their actions affect the lives of others. As a result, the increasing interest in analyzing the role of the fiscal policy conducted by governments upon the income distribution and discrepancies in income inequality resulted in various publications and these specialised in different fields of science.

This increased interest has arisen in the public finance literature too, where, in fact, the most important questions facing tax experts have been discussed. Taking into consideration the fact that their targets were always distributional in nature, it seems fair to say that in recent years there has been a marked resurgence of concern impact, actual or potential, of the tax system on the distribution of income and wealth. Therefore, the need to relate fiscal analysis more closely to development theory by considering as explicitly as possible the interaction between tax and expenditure policy, income distribution and economic growth has come increasingly to the fore.

The role of fiscal policy is to reflect the government's role in achieving social preferences on equity, using different tax instruments available. In fact, the distribution of income in the society is influenced by fiscal policy both directly and indirectly. Current disposable income (i.e., personal and corporative income) is subject to direct tax instruments, but the ability of future earnings of individuals and, therefore, the income market (i.e., pre-tax-and-transfer) could be and is influenced indirectly by the state fiscal policy. In the presented order of ideas, the present paper, therefore, focuses on what was and what is, rather than what would be the impact of redistributive fiscal policy and how it can be improved if desired, as seen in the European Union member countries. Afterwards, the paper reviews the evolution of income inequality in the EU member countries and figures out how fiscal policy has influenced these outcomes. The focus is on the direct impact of fiscal policy on income inequality. The paper also examines the contributions of both tax and expenditure policies in reducing income inequality in the EU, highlighting fiscal policy's impact in different EU member countries.

Therefore, this paper fills this gap by investigating the relationship between income inequalities in EU member states and identifies the role of fiscal policy to address this issue. In order to accomplish the stated objective and the aims mentioned above, the first section will focus on the empirical analysis regarding income policy and fiscal policy; the second section tries to highlight the main recent taxation trends in European Union member states and the third section presents a brief overview on income inequalities within EU member states. The presentation of the main findings and conclusions are included in the final section.

### **Income inequality and fiscal policy literature review**

Fiscal policy government revenues and expenditure have traditionally been regarded as an important instrument for effecting any desired redistribution of income. The theoretical literature on income distribution and growth has expanded enormously in recent years. Alesina and Perotti (1994, 1996) provide two short surveys of some developments in this field. More recent studies and namely those specialized on the European Union, as those by Dauderstädt and Keltek (2011), found out that inequality in the EU25 is smaller than in comparable large economies. In the EU27, inequality is larger than in India (measured by consumption data). When exchange rates are used instead of purchasing power standard (PPS), inequality in the EU25 is comparable (somewhat lower) than that of the US, inequality in the EU27 is largest of all countries considered. Also, the authors stated that EU inequality has decreased over the period. The same idea is promoted by Rodriguez-Pose and Tselios (2009), who mentioned that this trend is happening mainly due to the within component, which also explains the bulk of the total inequality. Brandolini (2007) considers that inequality is higher when exchange rates are used rather than PPPs. The difference is par-

ticularly large for the EU21. Inequality is lower when the modified OECD equivalence scale is used as opposed to the original one. Inequality for the EU as a whole is higher than the population-weighted average of national inequality. The enlargement to Eastern European countries has significantly increased the EU inequality.

In this context, it is worth to mention that income inequality (expressed by Gini coefficient) in the EU28 in 2013 on average counted for 30.5 (Eurostat, 2014) and this is mostly related with the income disparities between the member states (Papatheodorou, et al., 2003).

Compared to the relative large empirical literature on the income inequality, the impact of fiscal policy on income inequality and distribution has received less attention, a feature that contrasts with the public debates on its role. In the assessment and evaluation of existing empirical evidence, quality or availability of data on income distribution and their comparative properties are considered rather important or, therefore, a crucial aspect. In the context of these ideas, probably the most important drawback is the lack of unbroken series of data on income distribution and nature and value of fiscal instruments, both in terms of availability and their comparative properties.

High-income inequality usually reflects an unequal distribution of assets, such as land and human capital. Across countries, asset inequality and income inequality are closely associated (de Ferranti, et al., 2004). But high inequality can also reflect the failure of fiscal policy to perform its redistributive function – one of Musgrave's (1959) three classic fiscal functions (the other two are efficiency and stabilization) through appropriate use of taxes and transfers to correct socially-undesirable distributive outcomes arising from market forces, given the prevailing distribution of assets. The evidence shows that most EU industrial-country governments are highly effective at this redistributive function, but developing-country governments are not, and, in fact, they are often part of the problem rather than the solution. Smeeding (2006) analyzed the anti-poverty effect of taxes and transfers in industrial countries.

There are several studies that consider the minor role and ability of the tax policy to improve the distribution of income in comparison to the policy of public expenditure (Martínez-Vazquez, 2001; Goni, Lopez and Serven, 2011). On the other hand, Bastagli, Coady and Gupta (2012) demonstrated that income policy has reduced effects through the taxation, prices and fees policies, but the greater impact is played by the income taxes. According to some authors (for example, Goni, Lopez and Serven, 2011), the evaluation of the fiscal policy in the income distribution has focused on the measurement of the effects of public expenditure and the progressive or regressive impact of the taxes, but this impact depends more on the tax collection volume. Studies show that the impact of income taxes tends to be moderately progressive or neutral, since even when the taxes are progressive, it is evident that its incidence is greater in higher sectors due to the fact that such sector of the population concentrates on a larger volume of income (Goni, Lopez and Serven, 2011; Tanzi, 1974).

To summarize, it can be stated that lower income inequality is often viewed as important for achieving greater equality of opportunities to access economic, social and political resources. Others view it as intrinsically desirable because the existing income inequality is perceived to be the outcome of unfair access to resources and, thus, detrimental to social cohesion (Barro, 2000; Forbes, 2000). Although some inequality is deemed necessary to provide incentives for investment and economic growth, there is also evidence that high inequality may retard growth, especially if it reflects credit market imperfections or political corruption or if it causes political instability (Berg and Ostry, 2011).

In the speciality literature, there are some ideas that argue the role of rising income inequality as an important factor that contributed to the evolution of the recent financial crisis. Fitoussi and Saraceno (2009) argue that increasing inequality has depressed aggregate demand, resulting in a monetary policy that has maintained low interest rates, thus fuelling a debt spiral among households. This was exacerbated by investor behavior, which created an asset bubble as investors searched for higher returns. Rajan (2010) argues that rising inequality has led to political pressure for more housing credit, which distorted lending in the financial sector. Kumhof and Ranci ere (2010) show that in the United States, the Great Depression starting in 1929 and the Great Recession starting in 2007 were both preceded by a sharp increase in income and wealth inequality and by a rapid rise in debt-to-income ratios among lower- and middle-income households.

Some studies of Lewis (Lewis, 2007, 2013) focused on the analysis of fiscal policy in Central and Eastern Europe (CEE), analysed the evolution of fiscal policy in central and eastern European countries during the EU accession process, testing for country and time-specific effects (Lewis, 2007) and assessment of the cyclicity, inertia and effect of EU accession on fiscal policy in CEE using a real-time dataset. According to his findings, budget balances are found to react in a stabilizing way to economic activity – every extra percentage point of economic growth is associated with an improvement in the budget balance of 0.3 percentage points of Gross Domestic Product (Lewis, 2013).

Nevertheless, some recent studies regarding the current situation about the impact of the fiscal policy of all EU member states on income inequalities have not yet been provided. That is why the present article comes with several novel contributions by examining whether earlier results on this subject are maintaining the trends and factors of fiscal policy influence on the income redistribution in EU member states in real time.

### **Taxation trends in the European Union**

In a traditional way, all taxes are classified into two groups: 1) direct taxes (which are mostly referring to the personal or corporative income tax and social security revenue (mainly contributions to the pension, health and other social insurance systems)); and 2) indirect taxes (i.e., VAT and specific commodity taxes). Generally, the first group allows greater redistribution as it is impractical to introduce progressivity in indirect taxes. The recourse to direct taxes tends to be greater in the countries where tax redistribution objectives are indeed more pronounced. Usually, this also results in higher top personal income tax rates. Social contributions are, as a rule, directly linked with a right to benefits, such as old age pensions or unemployment and health insurance.

Thus, direct taxes has more impact on the redistribution of income than compared to the indirect taxes. The redistributive effect of the income taxes is greater than the redistributive effects of the transfers and the social insurance, especially if analyzed from the perspective of its life cycle (M arquez, 2015). That is why (and this is not the only reason) in the present paper the main focus is concentrated on direct taxes and their relation with income inequalities in European Union's member states.

Engel et al. (1999) provide an analytical framework that helps highlighting the role of fiscal policy in income redistribution. In their framework, the redistributive impact of

a country's fiscal system is shaped by several factors, one of it being the volume of tax collection – as tax collection capacity ultimately determines the feasible volume of transfers.

Statistical data regarding income inequality and taxes used in this work are retrieved from EC publications “European Taxation Database”, “Structures of the Taxation Systems in EU”, as well as European Commission: EC: DG Taxation and Customs Union and Eurostat, etc.

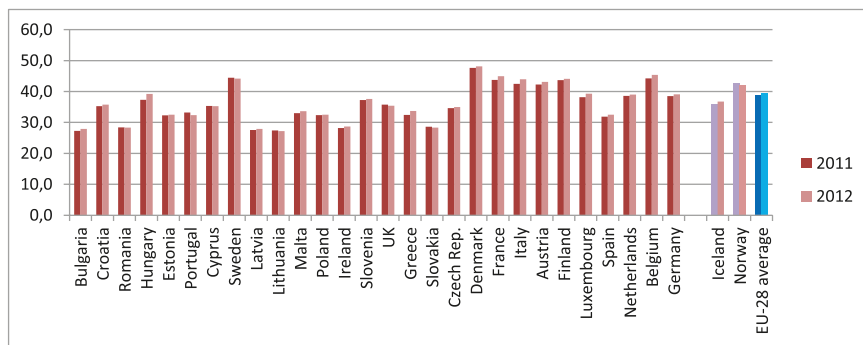
In 2012, the overall tax ratio, i.e., the sum of taxes and compulsory actual social contributions in the 28 Member States (EU-28), amounted to 39.4% in the GDP-weighted average, nearly 15 percentage points of GDP over the level recorded for the USA and around 10 percentage points above the level recorded by Japan. The overall tax-to-GDP ratio started decreasing in the EU in 2000. This trend continued until 2004. The overall tax ratio increased up to 2007 in the euro area and the EU28. Tax revenues then decreased until 2010 in both the euro area and the EU28 (Eurostat, 2014).

The high levels of EU taxes could be comparable also with many other developed economies. Thus, among non-European OECD countries, for which recent detailed tax data is available, Russia and New Zeland can be mentioned, both of them registering tax ratios exceeding 30% of GDP in 2011, namely of 35.6% of GDP and 31.8% of GDP, respectively. Nevertheless, there are certain countries, such as Canada, Australia and South Korea, that registered tax-to-GDP ratios (data from 2011) below 30%. It is also worth mentioning that for less developed economies relative low tax ratios are common (IMF, 2014; OECD, 2012).

High level of taxes in the EU28 is not a new phenomenon, it dates back essentially to the last third of the 20th century. At the community level, even if certain common requirements regarding fiscal policy are established, in practice each national authority is responsible for its fiscal policy. Most of these requirements derive from the Maastricht criteria and Growth and Stability Pact, which led the Member States to adopt a number of fiscal consolidation packages in the late 1990s. In some EU member states, the consolidation process relied primarily on restricting or scaling back primary public expenditures, in others the focus was rather on increasing taxes. Nevertheless, by the end of the 20th century, however, many benefited from the buoyant tax revenues and reduced the tax burden, especially in the personal and corporate income tax, as well as in social contributions. This mostly happened in more developed, from an economic point of view, countries of the European Union. Thus, the modalities for calculating contributions and benefits allow considerable leeway in this respect and the situation is quite diversified among EU Member States.

In 2012, tax revenues as a share of GDP increased in almost all EU member states, namely in 22 of them as well as in Norway. Still, the tax revenue to GDP ratio remained stable in Cyprus and decreased in Portugal (– 0.9 pp. of GDP), Slovakia and the United Kingdom (both – 0.3 pp. of GDP), Lithuania and Sweden (– 0.2 pp. of GDP), and Romania (– 0.1 pp. of GDP) (Figure 1).

**Figure 1:** Tax revenue (including social contributions) in EU countries, 2011–2012 (% of GDP)



Source: created by the author according to the data of EC: DG Taxation and Customs Union and Eurostat (online data codes: gov\_a\_tax\_ag)

In percentage points of GDP, the highest increases from 2011 to 2012 were recorded by Hungary<sup>1</sup> (1.9 pp. of GDP), Italy (1.5 pp. of GDP), Greece<sup>2</sup> (1.3 pp. of GDP), France (1.2 pp. of GDP) and Belgium (1.2 pp. of GDP). While Belgium, France and Italy are among the countries with a consistently high tax burden, the tax burdens of Hungary and Greece remain below the EU average.

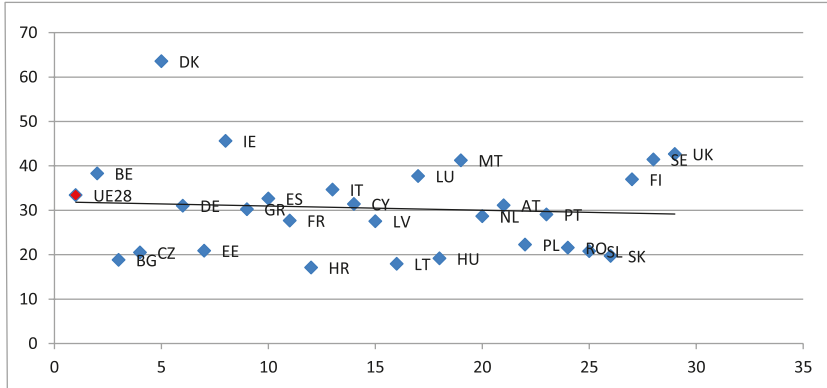
It is worth to mention that the analysis of the current trends in the EU taxes highlights the fact that the member states, which have joined the European Union from 2004 onwards, have a different structure compared with the EU15. In particular, these countries, with the notable exception of Malta (41.3 %), display lower shares of direct taxes in the total taxes comparing with most of the EU15 member states that raise roughly equal shares of revenues from direct taxes, indirect taxes and social contributions (Figure 2). This is probably linked with the lower income levels of individuals and firms from those countries in comparison with those from more developed EU member countries.

Also, among the EU15 Member States, there are some noticeable differences. The highest shares of direct taxes in the total tax revenues are registered in Denmark, Ireland, the United Kingdom and Sweden as well as Norway and Iceland. On the other hand, the shares of social contributions to total tax revenues are low in Denmark and, to a lesser extent, in Sweden and the United Kingdom (see next section).

<sup>1</sup> Due to an increase in both absolute VAT revenue and personal income tax revenue (after a drop in 2011 due to the introduction of a new flat-rate system), these were the main reasons for the increase in the tax-to-GDP ratio.

<sup>2</sup> In Greece, absolute increases are noted for taxes on income and other current taxes, decreases are observed for taxes on production and imports (reflecting the negative growth in output) and actual social contributions.

**Figure 2:** Direct taxes in EU member countries, 2012 (% of total taxation)



Source: created by the author according to the data of EC: DG Taxation and Customs Union and Eurostat (online data codes: gov\_a\_tax\_ag)

The lowest shares of direct taxes are recorded in Croatia (17.1% of the total), Lithuania (18.0%, markedly down from 30.3% in 2008), Bulgaria (18.8%), Hungary (19.2%) and Slovakia (19.7%) (Eurostat, 2014). All of these countries have adopted flat rate systems, which typically induce a stronger reduction in direct than indirect tax rates.

The very first conclusion is that there is a direct dependance between the gross disposable income of households and the share of direct taxes in the total tax revenues of the country. The EU27 (except Malta) average correlation coefficient is 0.72. Usually, countries with higher gross disposable income display a higher share of direct taxes in total taxes.

So, fiscal policy is the primary tool for governments to affect income distribution (IMF, 2014). All these data speak about the existence of large discrepancies in the income distribution in EU member states and, therefore, the redistributive impact of direct taxes can be inferred by comparing the Gini coefficients of gross and disposable income.

### Income inequality in EU member states and fiscal policy

Trends in income inequality often depend on the inequality indicator being used. The most widely used and widely available inequality measure is the Gini coefficient. Gini index measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. A Lorenz curve plots the cumulative percentages of total income received against the cumulative number of recipients, starting with the poorest individual or household. The Gini index measures the area between the Lorenz curve and a hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line. Thus, a Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality.

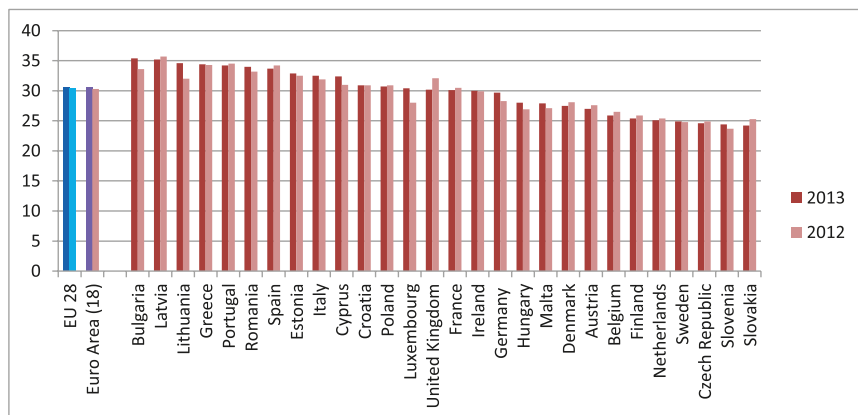
The global financial crisis has led many European countries to face sluggish economic growth rates over the last years that resulted in stagnating incomes, rising inequality and poverty in almost all the EU member countries. The recession of the past few years has not only increased attention to rising inequalities in the EU, but also evoked growing academic and political interest in finding broader measures for economic performance than GDP growth.

While inequality is often viewed from a national perspective, there are good reasons to analyse it for Europe as a whole. Union-wide policies and objectives are already in place in a number of areas. In the social sphere, the Europe 2020 strategy defines inclusive growth as one of the three main priorities for the European Union (EU) and one of the headline targets is 20 million less Europeans in or at risk of poverty and social exclusion by 2020. According to Eurostat, the number of such individuals amounted to 115 million in 2010. European regional policies, which are absorbing more than a third of EU budget (OECD, 2014), have also focused on stimulating growth in areas where incomes are relatively low to reduce regional disparities. Policies for redistributing individual incomes remain, however, at the sole charge of national governments. Finally, with deeper integration, Europeans are likely to look more beyond their national borders when they make relative income comparisons.

While measuring the income inequalities as well as their trend at the national level represents an accomplishable task, there are, however, important methodological challenges of measuring income dispersion in the European Union as a whole. Creating meaningful statistics that summarise cross-country heterogeneity in income levels and distributions from scarce and often not fully comparable income data is not easy. For this reason, much of the existing literature on inequality in the EU still focuses on national levels and trends in inequality, which is at times complemented by attempts at clustering countries showing similar characteristics (Bonesmo Fredriksen, 2012). Eurostat publishes measures of income dispersion and poverty in the EU as weighted averages of national inequality indicators (Eurostat, 2014).

Income inequality measured by the Gini coefficient varied by approximately 10 points across Europe in 2013, with the lowest levels of inequality registered in Slovakia and Slovenia and the highest in Bulgaria, Latvia and Lithuania. The average income inequality in the EU28 in 2013 was 30.5. The situation, however, is different in the member states. In ten countries, income inequalities displayed the Gini coefficient above the EU28 average, ranging from 32.4 in Cyprus to 35.2 and 35.4 in Latvia and Bulgaria, respectively. Only five countries (France, UK, Luxemburg, Poland and Croatia) had an income inequality level around the EU28 average (30.5) (Figure 3).

**Figure 3:** Gini coefficient for EU28 member countries in 2012 and 2013 (scale from 0 to 100)



Source: created by the author according to the data of Eurostat 2014 (ilc\_di12)



Nevertheless, there are several countries where the income disparities, measured by the Gini coefficient, were below the EU28 average, ranging from 30 in Ireland to less than 24.4 and 24.2 in Slovenia and Slovakia, respectively.

The comparison of data from 2012 and 2013 shed the light over the fact that the UK and Slovakia managed mostly to reduce income inequalities by 1.9 and 1.1 p.p., respectively. Other countries that registered the decrease in the Gini coefficient in 2013 in comparison with 2012 were Austria, France, Spain, Latvia, etc. However, 13 countries increased income inequalities in 2013 in comparison with the previous level. The higher rates of growing inequalities were registered in Lithuania (+2,6 p.p.), Luxembourg (+2,4 p.p.), Germany (+1,4 p.p.), Slovenia and Hungary (+1.1 p.p. each). To summarise, the analysis showed high levels of inequality across southern Europe, as seen in Figure 3, but there is no dominant pattern in central and northern European countries.

### Social transfers and inequality

In order to measure the impact of the social transfers in reducing inequality, Gini coefficients based on total equivalised disposable household were calculated without including social transfers among the income sources. The comparative analysis of Gini coefficients before and after social transfers reveals the idea that income inequality would have been greater in all countries if social transfers were not included. Social transfers played a crucial role in Ireland, where including them reduced inequality by around 35%. Finally, they did not significantly affect inequality in eight countries where their inclusion among the income sources reduced inequality by less than 10% (Eurostat, 2014).

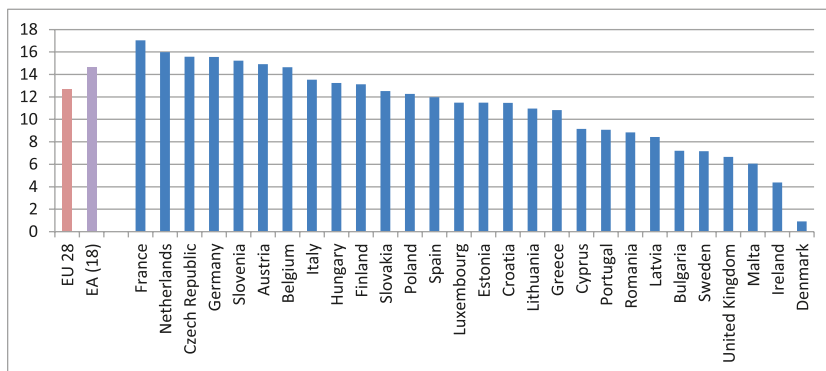
The analysis of social transfers evolution and nature highlights the fact that *social transfers play a big role in the European Union countries, decreasing income inequalities on average with 10% points (the difference between the Gini coefficients with and without social transfers)*. In other words, countries that spend more on social transfers tend to have lower income inequality. Thus, countries that spend more on social transfers, such as France, Netherlands, Czech Republic, Germany, Slovenia, Austria, Belgium, have relatively low income inequality (Figure 4).

In Denmark<sup>3</sup>, where social contributions are very low as most welfare spending is financed out of general taxation, personal income taxes account for 92% of the income tax rate (ITR) on labour. In Ireland and the UK, personal income tax is also a relatively large component of the ITR (65% and 52%, respectively). In Poland, on the other hand, personal income tax is less than 20% of the ITR on labour (Eurostat, 2014).

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<sup>3</sup> In Denmark, the share of social contributions is very low: most welfare spending is financed out of general taxation. This requires high direct tax levels and, indeed, the share of direct taxation to total tax revenues in Denmark is by far the highest in the Union. Among the EU15 Member States, the Dutch, German and French tax systems represent in this respect the opposite of Denmark's with high shares of social contributions in the total tax revenues, and relatively low shares of direct tax revenues.

**Figure 4:** Social contributions in EU28, 2012 (% of GDP)



Source: created by the author according to the data of DG Taxation and Customs Union and Eurostat (online data codes: gov\_a\_tax\_ag)

Generally, in 2012, social transfers as a share of GDP (32.4%) registered an average increase of 0.9% in the EU27, in comparison with the 2000 performances, then it counted 31,5% of GDP. In most Member States, social contributions account for a much greater share of labour taxes than the personal income tax. On average, about two thirds of the overall ITR on labour consists of non-wage labour costs paid by both employees and employers (Eurostat, 2014).

Like in the case of transfers, the conclusion is *that direct taxes reduce the levels of income inequality in European countries*. For example, direct taxation lowers the Gini coefficient of household income by 6-7% points in Austria, Belgium, Denmark and Luxembourg, and by an average 5% points for the fifteen European countries considered.

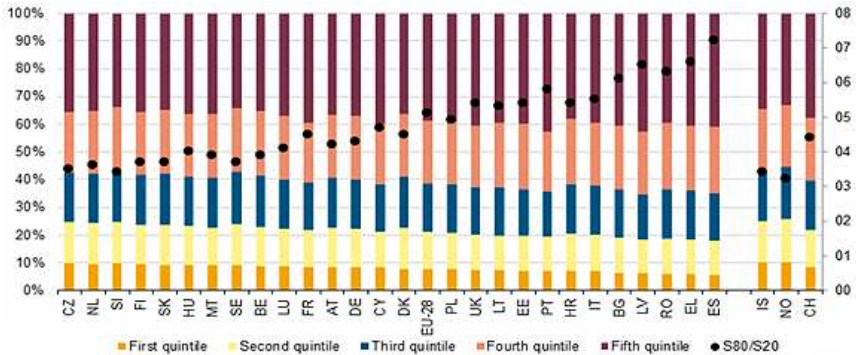
Although inequality in the EU28 on average remained almost at the same level in 2006-2013, a different pattern is seen for individual countries. From all EU28 member states, 13 countries managed to reduce their income discrepancies, but income inequalities increased in the remaining ones (Edwin, et al., 2011). Despite its high levels of inequality in 2013, Latvia managed to reduce inequality by about 9,5% over the period analysed. Nevertheless, the highest reduction of inequalities in the analyzed period was registered in Hungary (-15,9% reduction of the Gini coefficient), Slovakia (-13,9%), Latvia (-9,5%) and Portugal (-9,3%).

In contrast, the highest increase in inequality levels in 2013 in comparison with 2006 were registered in Denmark (+16%), Bulgaria (+13,5) and Cyprus (+12,5). Important increases were also registered in Germany (+10,8%), Croatia (10,4%) and France (+10,2%).

On average, in the EU28 in 2012, people in the highest (fifth) income quintile earned nearly 40% of the total income, and people in the lowest (first) quintile earned less than 10% (Di Falcoec, 2014). The analysis of income distribution among quintiles highlights the same pattern in all countries. On average, in the EU28, people in the first quintile earned 8% of the total income. People in the second quintile got 13% and people in the third one got 17% of all the income. On the other hand, people in the fourth and fifth quintiles got the most, with 17% and 23% of all the income. Across the member countries, there could be non-significant deviations from the average. In the Czech Republic, for example, people in the first quintile earned around 10% of the total income (Figure 5).

Looking at the income distribution in more detail, Figure 5 plots the income levels (with the top cut-off points<sup>4</sup> expressed in Purchasing Power Standard (PPS)) related to each quintile. As expected, there were big differences amongst countries in 2012, reflecting differences in living standards.

**Figure 5:** Share of total equivalised disposable income by quintile and income quintile share ratio, 2012

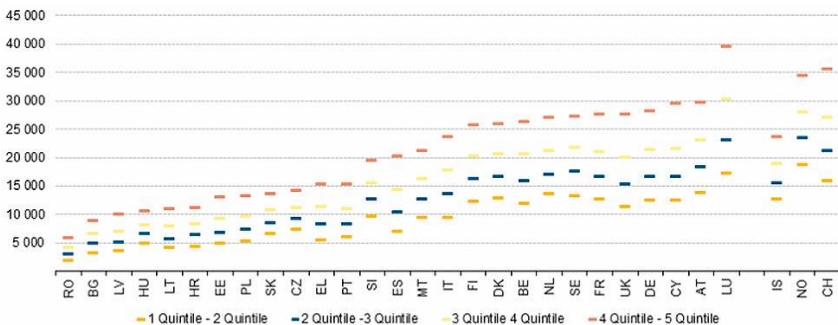


Source: Eurostat (ilc\_di01) and (ilc\_di11)

For example, belonging to the first quintile basically meant living in a household that earned less than 2 000 PPS in Romania and less than 4 000 PPS in Bulgaria and Latvia. However, it meant living in a household that earned less than 16 000 PPS in Switzerland, less than 17 300 PPS in Luxembourg and less than 18 700 PPS in Norway (Di Falcoec, 2014).

The fifth quintile comprised households that earned more than 39 500 PPS in Luxembourg, more than 35 600 PPS in Switzerland and more than 34 400 PPS in Norway, but it also included households that earned more than 5 900 PPS in Romania and more than 8 800 in Bulgaria (Figure 6).

**Figure 6:** Income gaps across quintiles in EU member states, 2012



Source: Di Falcoec (2014)

<sup>4</sup> A top cut-off point is a segment that divides two consecutive quintiles.

In Figure 6, countries are ranked by the increasing order of the fourth quintile top-cut off points. Data were not available for Ireland, so it was not included in this analysis.

In this context, it can be stated that it is quite difficult to establish and measure a common trend in the distribution of income in all EU member states, since they are different as levels of development have different specializations and apply different fiscal consolidation packages.

Alongside with the stated factors, growth has failed to reduce income inequalities in the EU since the 1990s. Much of this reflects inequality within countries, but the situation has been worsened recently by falling incomes in some low-income countries (Bonesmo Fredriksen, 2012). All these factors have contributed to weakening support for the European Union as citizens perceive fewer benefits from it.

Maybe the accomplishment of the Europe2020 Strategy's objectives would result in increasing human capital and bringing more people into the labour market (since approx. one third of Strategy's objectives and funds are directed towards it), would enhance growth inclusiveness, reduce income disparities and, hence, raise well-being.

## Conclusion

Fiscal policy is one of the most important tools for governments to affect income distribution. The main goal of the tax system in redistributive policy is that it should make the poor richer and the rich poorer. Equalization as an objective in itself is also a justification for high, even confiscatory, income tax rates quite apart from any argument based on the ability to pay. The major function of the tax system with respect to the distribution of income is, thus, a possible instrument for reducing the incomes of the richest.

In respect to the European Union, the main findings regarding the influence of fiscal policy upon the income inequalities highlight the following aspects.

Firstly, those countries which registered higher levels of expenditure proved to be those that also raised more taxes (as a share of GDP). For example, in 2013, the highest revenue to GDP ratio from the main categories of taxes and social contributions was 48.6% recorded in Denmark, with France and Belgium recording the next highest shares (47.1% and 46.2%, respectively). Also, it is worth to mention that these countries managed to decrease income inequalities (expressed by the Gini coefficient).

Secondly, the Gini coefficient reveals differences of approximately 10 points across the EU in 2013, with the lowest levels of inequality seen in Slovakia and Slovenia and the highest ones in Bulgaria and Latvia. The analysis showed high levels of inequality across southern Europe, but there was no dominant pattern in central and northern European countries.

Thirdly, social transfers (excluding pensions) played an important role in reducing inequality in 2013. In other words, countries that spend more on social transfers tend to have lower income inequality. Thus, countries that spend more on social transfers, such as France, Netherlands, Czech Republic, Germany, Slovenia, Austria, Belgium, have relatively low income inequality. Direct taxation lowers the Gini coefficient of household income by 6-7% points in Austria, Belgium, Denmark and Luxembourg, and by an average 5% points for the fifteen European countries considered. Thus, public expenditure on social welfare is becoming more selective and focuses on the provision of public goods and services to the most vulnerable segments of the population. Its focalization and reduction generate a

greater direct redistributive impact but in a smaller amount of inhabitants, and the current dominance of monetary policy leaves a poor role for tax policy as a mere stabilizer.

On average, the decrease in inequality brought about by tax and transfer policies was greater in economies with higher inequality of market income, so that differences across economies in inequality of disposable income are much smaller than differences in market income inequality.

Fourthly, on average, in Europe in 2012, people in the highest (fifth) income quintile earned nearly 40% of the total income, and people in the lowest (first) quintile earned less than 10%. In 2012, the biggest income gap between the upper and lower parts of the income distribution was seen in Luxembourg and the smallest in Romania. Nevertheless, the distribution of income per quintiles does not lead to a constructive conclusion, because, for example, the fifth quintile comprises households that earned more than 39 500 PPS in Luxembourg, but it also included households that earned more than 5 900 PPS in Romania and more than 8 800 in Bulgaria. So, people with different income levels are framed in the same quintile.

In this context, it can be stated that it is quite difficult to establish and measure a common trend in the distribution of income in all EU member states, since they are different as levels of development have different specializations and apply different fiscal consolidation packages. Nevertheless, fiscal and social policies in all member countries need to support employment which proves to be a key redistribution tool. This means removing tax distortions that affect labour market participation.

Fiscal policy is the main instrument that a government has to employ in order to affect the distribution of income and wealth, but it is not the only one. All the processes in the economy are interrelated and incomes are not an exception. The monetary and exchange rate policies have direct impacts on inflation and key prices of the economy and, therefore, prices and wages. Also, it is important to mention the close relationship between social and fiscal policy – both of them aiming to improve income distribution. However, contrary to what the majority believes, the programs and policies of public expenditure destined to social expenditure are not the only instruments of influence, as are not either the progressive or regressive taxes to income and consumption.

Thus, it is very important to use the tax policy once more as a tool to combat inequality. In this respect, the next researches should be focused on the interdisciplinary aspects, on the impact of different economic and political policies and reforms and their distributional effect.

## References

- Alesina, A., and Perotti, R. (1996). Income Distribution, Political Instability and Investment. *European Economic Review*.
- Barro, R. (2000). Inequality and Growth in a Panel of Countries. *Journal of Economic Growth*, 5: 5–32.
- Bastagli, F., Coady, D., and Gupta, S. (2012). Income Inequality and Fiscal Policy. Retrieved from <http://www.imf.org/external/pubs/ft/sdn/2012/sdn1208.pdf>.
- Brandolini, A. (2007). Measurement of Income Distribution in Supranational Entities: The Case of the European Union. *Banca D'Italia, temi di discussione del Servizio Studi*, 623.
- Berg, A., and Ostry, J. (2011). Inequality and Unsustainable Growth: Two Sides of the Same Coin? *IMF Staff Discussion Note 11/08*. Washington: International Monetary Fund.

- Bonesmo Fredriksen, K. (2012). Income Inequality in the European Union. *OECD Economics Department Working Papers*, 952. OECD Publishing.
- Dauderstädt, M., and Kelmtzek, C. (2011). Immeasurable Inequality in the European Union. *Intereconomics*, 46(1): 44-51.
- de Ferranti, D., Perry, G., Ferreira, F., and Walton, M. (2004). *Inequality in Latin America & the Caribbean: Breaking with history?* Washington DC: The World Bank.
- Di Falcoec, E. (2014). Income Inequality Statistics. EC. *Statistics in Focus*, 12. ISSN: 2314-9647.
- Engel, E., Galetovic, A., and Raddatz, C. (1999). Taxes and Income Distribution in Chile: Some Unpleasant Redistributive Arithmetic. *Journal of Development Economics*, 59: 155–192.
- Eurostat. (2014). Taxation Trends in the European Union: Data for the EU Member States, Iceland and Norway. *Eurostat Statistical Book*. ISSN 1831-8789.
- Fitoussi, J-P., and Saraceno, F. (2009). How Deep Is a Crisis? Policy Responses and Structural Factors behind Diverging Performances. *OFCE Document de Travail*, 31. Paris: Center for Economic Research.
- Forbes, K. (2000). A Reassessment of the Relationship between Inequality and Growth. *American Economic Review*, 90(4): 869–887.
- Goñi, E., López, H., and Servén, L. (2011). Fiscal Redistribution and Income Inequality in Latin America. *World Development Journal*, 39(9): 1558–1569.
- IMF. (2014). Fiscal Policy and Income Inequality. Retrieved from <http://www.imf.org/external/np/pp/eng/2014/012314.pdf>.
- Kumhof, M., and Rancière, R. (2010). Inequality, Leverage, and Crises. *IMF Working Paper 10/268*. Washington: International Monetary Fund.
- Lewis, J. (2007). Fiscal Policy in Central and Eastern Europe: What Happened in the Run-up to EU Accession? *International Economics and Economic Policy*, 4(1): 15-31.
- Lewis, J. (2013). Fiscal Policy in Central and Eastern Europe with Real Time Data: Cyclicity, Inertia and the Role of EU Accession. *Applied Economics*, 45(23): 3347-3359
- Márquez, N. C. (2015). Trends in Income Distribution and the Influence of Fiscal Policy. In *XIV International Business and Economy Conference*. Bangkok, Thailand, January 5–8, 2015.
- Martínez-Vazquez, J. (2001). The Impact of Budgets on the Poor: Tax and Benefit Incidence. Retrieved from <http://icepp.gsu.edu/sites/default/files/documents/icepp/wp/isppw0110.pdf>.
- Musgrave, R. (1959). *The Theory of Public Finance: Study in Public Economy*. New York: McGraw-Hill.
- OECD. (2012). Reducing Income Inequality while Boosting Economic Growth: Can It Be Done? *Economic Policy Reforms 2012: Going for Growth*. Paris: OECD Publishing.
- OECD. (2014). Economic Survey of the European Union 2014, OECD, Paris. Retrieved from <https://oecd.org/eco/surveys/EU-Overview-2014.pdf>.
- Papathodorou, C., and Pavlopoulos, D. (2003). Accounting for Inequality in the EU: Income Disparities between and within Member States and Overall Income Inequality. *MPRA Paper*, 209. Germany: University Library of Munich.
- Rajan, R. (2010). *Fault Lines: How Hidden Fractures Still Threaten the World Economy*. Princeton: Princeton University Press.
- Rodríguez-Pose, A., and Tselios, V. (2009). Mapping Regional Personal Income Distribution in Western Europe: Income Per Capita and Inequality. *Czech Journal of Economics and Finance*, 59(1): 41-70.
- Smeeding, T. (2006). Government Programs and Social Outcomes: Comparison of the United States with Other Rich Nations. In A. Auerbach, D. Card, and J. Quigley (eds.), *Public Policy and Income Distribution*. New York: Russell Sage Foundation.
- Tanzi, V. (1974). Redistributing Income through the Budget in Latina America. Consulted at: *PSL Quarterly Review*. Retrieved from <http://bib03.caspar.it/ojspadis/index.php/PSLQuarterlyReview/article/view/11450/11323>.
- Woo, J. (2011). Growth, Income Distribution, and Fiscal Policy Volatility. *Journal of Development Economics*, 96(2): 289–313.

## FISKALINĖS POLITIKOS ĮTAKA PAJAMŲ NELYGYBEI EUROPOS SĄJUNGOS ŠALYSE NARĖSE

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**Santrauka.** Maži ekonomikos augimo rodikliai per pastaruosius dešimtmečius Europoje sustiprino susirūpinimą dėl didėjančios pajamų nelygybės ir socialinės atskirties. Europos valdžios institucijos neseniai pristatė strategiją „Europa 2020“, kurios tikslas pagerinti socialinę įtrauktį Europoje įgyvendinant Europos regioninę politiką, kuria siekiama sumažinti regioninius skirtumus skatinant augimą tose srityse, kuriose pajamos yra santykinai mažos. Nors ir tai dažniausiai apsiriboja nelygybės vertinimais konkrečių valstybių teritorijose, tokių tikslų ir politikos egzistavimas Sąjungos mastu motyvuoja šiame straipsnyje matuoti pajamų pasiskirstymą tarp visų europiečių. Fiskalinė politika yra galingas įrankis, keičiantis pajamų pasiskirstymą abiem kryptimis, link didesnės arba mažesnės nelygybės. Atsižvelgiant į tai šiame straipsnyje apžvelgiama pajamų nelygybės raida ES valstybėse narėse ir išsiaiškinta, kaip fiskalinė politika (tiesioginiai mokesčiai) turėjo įtakos šiems rezultatams. Straipsnyje taip pat nagrinėjamas ir mokesčių bei išlaidų politikų indėlis mažinant pajamų nelygybę ES, pabrėžiant fiskalinės politikos poveikį skirtingose ES šalyse narėse.

**Reikšminiai žodžiai:** fiskalinė politika, tiesioginiai mokesčiai, pajamų nelygybė, Džini koeficientas, socialinės įmokos.