Abstract. We investigate the factors that have had an impact on poverty rates and inequalities in Europe and enquire about the possibility to reduce them in the future. After a period when some equality had been achieved, the financial crisis and the increase in unemployment that derived from it had a negative impact on poverty and socio-economic inequalities in almost all European countries. The contrasting evidence available for some of them is analysed first. One can say that the very factor that sustained some equality before the crisis, i.e., a rather high rate of growth also in peripheral countries, caused the crisis by nourishing a kind of credit-led growth in these countries and produced a negative impact on poverty rates and equity there. Only the welfare state has succeeded in mitigating the negative impact of the crisis on poverty and equity, but at the cost of further burdening public finances, especially in peripheral countries. This casts a shadow on the ability of the welfare state to perform the same role in the future; unless the austerity regime derived from the institutional set-up of EMU and the deflationary policies imposed to tame the crisis are overcome.

Keywords: European Monetary Union, Equity, Balance of Payments Imbalances, Financial Crisis

JEL Codes: F33, F36, H23, H53, I38

1. Introduction

After a period when some equality had been achieved, the financial crisis has had a negative impact on poverty rates and, to some extent, on socio-economic inequalities in almost all European countries. We intend to investigate the extent and nature of this change as well as the factors that have had a positive or negative impact on it. This could let us throw some light on an enquiry into the possibility of reducing poverty and equality in the future.

Section 2 is devoted to the analysis of the trend and nature of socio-economic poverty and inequalities before the crisis. Section 3 deals with poverty and inequalities emerging after the crisis. The final section outlines the main conclusions.

2. Trends in socio-economic poverty and inequalities before the crisis

Before discussing macroeconomic and equity achievements preceding the crisis, it is worth remembering that the tradition of the EU construction assigns a high weight to the role of markets vs active policies and institutions. Theories stated in the two decades after the end of the 1960s favoured the free-market attitude of the EMU, together with adoption of an independent and conservative central bank and of rules limiting discretionary fiscal policy at the country level. They supported a shift in economic policy attitudes whose most popular examples were Thatcher’s and Volcker’s and Reagan’s, outside the Union.

Passing to the economic performance in OECD countries, in contrast with inflation trends, unemployment rates – which can be taken as a first indicator of socio-economic conditions - decisively increased after 1970 until 2007 (see Figure 1), while inflation rates decisively reduced (Figure 2). For the OECD countries as a whole, unemployment rose by about 3 p.p. and inflation dropped by about the same amount. This implies a clear change in policymakers’ preferences all around the world. However, since we are specifically interested in the impact of European institutions and policies, specific mention should be made of those that were chosen for the EMU countries, for some of which trends clearly appear even less favourable.
Figure 1. Unemployment rates (%), various developed countries, 1970-2014

Source: OECD

Figure 2. Inflation rates (%), various developed countries, 1970-2014

Source: OECD

The rise of unemployment gives a first idea of the trend of poverty and distribution. Really, the shock deriving from the change in policy preferences had already exhausted its impact in the EU during the Nineties. As a consequence, in the first years after 1999 and before the crisis one should expect the practical absence of an aggregate change in the rate of poverty as a whole. There are, however, no detailed statistics for the early 2000s, since estimation of trends in at-risk-of-poverty rates over the long-term is problematic, due to absence of consistent data sources. Instead, in the period between 2004 and 2007, for the majority of countries there was no statistically significant change in the at-risk-of-poverty rate, whereas the rate declined in Ireland, Poland, and Slovakia, and is likely to have declined in the Czech Republic and Hungary. In contrast, at-risk-of-poverty rates increased in Germany, Finland, Latvia, and Sweden (Lelkes, Gasior, 2012).

After 2007 we have also a more complete indicator of poverty, offered by the risk of poverty and social exclusion,\(^1\) which is a Europe 2020 goal. This indicator considers not only the share of people with an equivalised

\(^1\) On this concept see, e.g., Atkinson et al (2002a, b), World Bank (2007), Atkinson (2009a). For comparisons over time, see Lelkes, Gasior (2012).
disposable income (after social transfer) below the at-risk-of-poverty threshold, set at 60% of the national median of that indicator, but also enforced inability to pay unexpected expenses. Both situations can obviously derive from a condition of unemployment. For this reason this indicator is more comprehensive than the poverty rate. The reader might have noted that the rate of poverty and social exclusion was partly defined in the space of income \(^2\) (this is so for the rate of poverty), but the other component – social exclusion – can be related to Sen’s concept of capability. Thus, it has a multidimensional dimension going beyond the static indications deriving from poverty, since it refers not only to monetary poverty, but also to other components: these are material deprivation, which affects future prospects for the poor, and a situation of living in households with low work intensity, which is at the roots of poverty. In 2007, 24.4% (21.7%) of the population in the EU (EMU 17), totalling about 120 (71) million people were at risk of poverty and social exclusion (Figure 3). The situation was clearly worse not only in some Eastern European countries, but also in the peripheral ones, namely, Ireland, Spain, Portugal, Italy and Greece (the so called GIIPS countries).

Figure 3. People at risk of poverty and social exclusion, various countries (%), EU 27, 2007

Source: EUROSTAT

Were it not for the ephemeral growth deriving from the asset bubbles created in these countries by the capital inflows specular to their current account deficits, the poverty rates in these countries and the gap with core countries would have been higher. However, these very factors were behind the worsening of the differences after the crisis, when the direction of capital flows reversed, causing bank and sovereign debts and, then, deflationary tendencies.

In addition to poverty, inequality must be considered. The dispersion of indicators of efficiency and poverty across member countries also offers information about geographical inequality across the EU. Other indicators of inequality can also be considered. As to personal income inequality, in 1980, disparities were generally higher in Western Europe than in Scandinavia and Eastern Europe and the gap increased in the following decades, especially due to the rise of inequalities in Spain, Portugal, Germany and the UK. In the Nineties, instead top income inequality rose in the first two groups of countries, especially in Eastern European countries, due to the disintegration of the Soviet bloc. The share of the top 10% income earners rose (almost) everywhere in Southern, West and Northern Europe and even more in East Europe up to the financial crisis. The Theil index rose from 0.37 to 0.52 up to 2007, whereas it rose more considerably in the USA.

This trend was partially influenced by fiscal policy, which acted in Europe, particularly in the Eighties and Nineties, in reducing income inequality. Today, pre-tax income inequality remains, on average, slightly lower in Northern Europe than in other regions of the Continent, even if these differences should not be exaggerated. More generally, after-tax inequality was slightly lower than before taxes in Europe, contrary to the USA, where the incidence of taxes was higher, leading to lower inequality (Blanchet et al, 2019).

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\(^2\) In some way similarly to poverty, inequality can refer to a number of “spaces” such as consumption, income, wealth, utility, capability. The most common spaces are income and wealth. Wealth inequality can refer to total wealth or net of debt wealth, or to specific wealth items, houses, land or financial wealth. For each space and dimension, different indices can be calculated.
3. **Socio-economic inequalities after the crisis**

Equity was hit badly by the crisis, as shown by Figures 4 and 5. In particular, between 2007 and 2016 the average rate of poverty and social exclusion rose by 1.4 p.p. to 23.1% in the EMU, while decreasing in the EU, from 24.5 to 23.4% (not shown by the figures).

*Figure 4. People at risk of poverty and social exclusion, various EU countries (%), 2014, 2015*

![Figure 4. People at risk of poverty and social exclusion, various EU countries (%), 2014, 2015](image)

*Source: EUROSTAT*

*Figure 5. People at risk of poverty and social exclusion, various EZ countries (%), 2007, 2016*

![Figure 5. People at risk of poverty and social exclusion, various EZ countries (%), 2007, 2016](image)

*Source: EUROSTAT*

The increase in this rate appears to have been rather limited, but this conclusion would be largely misleading. The figures, in fact, undervalue impoverishment and social exclusion, since the crisis has significantly lowered the
average and median per capita income, especially in some countries\textsuperscript{3}. Moreover, the EU variance has sharply reduced in the period, from 100.11 to 48.33, the value for the EMU of this indicator has soared, from 14.95 to 29.12.

In addition, we must consider that containment in the increase of the poor derives from the existence of the welfare state. To show the importance of its role we must refer to one component of the risk of poverty and social exclusion, i.e. poverty rates, as this measures the monetary aspect of poverty only. This component is calculated by taking into account net disposable income, which is significantly affected by taxes and social transfers. Data about this component in different EU countries before and after all social transfers (including social pensions)\textsuperscript{4} show how significant are transfers as a part of disposable income. If we consider their contribution not only at the deepest point of the crisis, but also more recently, they amounted to almost 9\% of the median income for the EU in 2015, lowering the share of people at risk of poverty from 26.0\% to 17.3\% (Figure 6). The contribution was much higher for some countries (not only Scandinavian countries, but also the UK and other countries) than for new-accession countries\textsuperscript{5}. The share of the poor before social transfers was similar in Finland (26.8\%) and in Romania (29.3\%). However, while Finland experienced the second largest decrease in the EU of the rate of poverty after social transfers (14.4 p.p.), in Romania the share of the monetary poor only fell slightly (3.9 p.p.) as a result of such transfers.

Over time, the rates of people at-risk-of-poverty before and after social transfers have moved in different directions. The former was relatively stable in the EU between 2010 and 2015\textsuperscript{6}, while the latter increased slightly over the same period. This could mean that either the amounts of social transfers paid have fallen or such transfers have become less effective over time. Overall, as transfers are countercyclical, we can deduce that the member states performed a high-profile task in compensating for the negative effects of the crisis on monetary poverty. However, performance of this role entailed higher public deficits and debts throughout the EU, which could make the burden of the welfare state unsustainable, unless this cost is reduced, as it has been done in some countries.

\textit{Figure 6. People at risk of poverty, before and after social transfers (excluding pensions) (\%), EU 28, 2015}

\begin{figure}[h]
\includegraphics[width=\textwidth]{figure6.png}
\caption{People at risk of poverty, before and after social transfers (excluding pensions) (\%), EU 28, 2015}
\end{figure}

\textsuperscript{3} Apart from the peripheral countries (the GIIPS) and some CEEC countries, also some of the leading countries of the EU, such as France and Germany, have significantly been affected by the crisis (Insee, 2014, Bundeszentrale für politische Bildung und dem Wissenschaftszentrum Berlin für Sozialforschung, 2013). In Germany the situation of the Eastern Lander had particularly worsened after the crisis.

\textsuperscript{4} One could say that data about poverty rates before and after social transfers (including social pensions) are not a suitable indicator, as social pensions largely represent an intergenerational transfer between the same people, rather than a transfer among different people of the same generation. But data show that the substance of our argument holds (and really is possibly emphasized) if they are excluded.

\textsuperscript{5} The impact of (total) social transfers reduces the average number of material deprivations by 2.2\%. in Germany and Greece and by 1.9 and 1.8 in Poland and the UK, and even more if we consider only worse off recipients. The reduction in at-risk-of-poverty rates is usually even higher (Notten, Guio, 2016). In 2016 the Greek at-risk-of-poverty rate before all social transfers (i.e. excluding both social benefits and pensions from the total disposable household income) was 52.9\%. It dropped to 21.2\%, after consideration of social transfers. Thus, the inclusion of total social transfers contributed to a total decrease of 27.7 p. p. in the at-risk-of-poverty rate.

\textsuperscript{6} One must remember that, as said, given the definition of the rate of poverty in terms of the median income, a reduction in the former does not necessarily imply a reduction in the number of the poor.
As to income inequality within specific countries, the findings of various studies - referring to different periods, countries and indicators - differ. From the end of the Civil War in the US to the start of WWII, inequality increased as an effect of rising monopolization; while for European countries, in terms of the Gini coefficient, it diminished mainly as an effect of “the wars of the twentieth century that, to some extent, wiped out the past and transformed the structure of inequality” (Piketty, 2013: 118).

More recently, the trend in income inequality has changed. With reference to the last three decades, inequality – again in terms of the Gini index – has risen more in transition countries (mainly the Baltic countries), the UK and some Nordic countries. It has increased less in other countries, such as Italy, and has remained largely unchanged in Austria, Denmark, France and Germany, in particular after the eruption of the Great Recession (Salverda et al, 2014). Using a measure of personal inequality different from the Gini index, this picture is confirmed and some aspects of the changes are revealed. In the UK the top 1 percent income share has risen less than in the US and has stayed almost constant in major Continental European countries (Piketty, 2013, Alvaredo et al, 2013). Strictly tied to personal inequality of income is personal inequality of wealth, which varies highly between countries, being higher in the UK, France and the Scandinavian countries, while Spain, Ireland and Italy have lower inequality levels (Maestri et al, 2014).

Indeed, the effects of the crisis on personal distribution were variegated. If one considers the share of income pertaining to the richest countries, the effects in the UK were negative, similarly to what happened also in other Anglo-Saxon countries (Figure 7)\(^7\). By contrast, at least in some countries of Continental Europe they were almost absent, due mainly to the more intense action of the welfare state in them (Figure 8).

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure7.png}
\caption{Share of income of the richest 1% of the population, Anglo-Saxon countries, 1910-2010}
\end{figure}

\textbf{Source: Alvaredo et al, 2013}

\(*\) However, consider that, contrary to what happened to the highest 1% income perciipients, the share of the top 10% income earners stayed generally stable after 2007 (indeed up to 2017) in the USA, similarly to what happened in Europe as a whole (Hooper et al, 2018).
These findings are substantially confirmed by more recent analysis of income distribution in developed countries (Bourguignon, 2018). This same source also offers evaluations of the share of the higher percentile in the same countries, but it stops at 2012 and coincides with the Alvaredo et al.’s findings in some cases, whereas in others they differ. Counterfactual simulations show that the expansionary monetary policy of the ECB contributed to counteracting the negative effects of the sovereign debt crisis and to mitigating the negative effects of the sovereign debt crisis on both the banking sector and the real economy, not only in individual countries but also in the EZ as a whole.

Source: Alvaredo et al, 2013

**Figure 9. Gini index for the EA and some EU countries, 2007, 2016**
As to the effects of the Great Recession on personal income distribution, the Gini index for the EA as a whole confirms its practical invariance, whereas rises and reductions have influenced countries differently. Rather strangely, there have been rises in some rather equalitarian Northern countries, such as Sweden and the Denmark, as well as in peripheral countries and France, whereas Finland, Germany, the Netherlands and the UK seem to have benefitted from the crisis in terms of distribution (Figure 9). Similarly, the Theil index slightly reduced from 0.52 in 2007 to 0.50 in 2017, whereas it rose continuously in the USA (Blanchet et al, 2019).

Strictly tied to personal inequality of income is personal inequality of wealth, which varies highly between countries, being higher in the UK, France and the Scandinavian countries, while Spain, Ireland and Italy have lower inequality levels (Maestri et al, 2014).

Personal inequality of both income and wealth is linked to worsening factor inequality and, to a large extent, also depends on it (e.g., Dabla-Norris et al, 2015, Stockhammer, 2015). However, in our case, rather strangely, improvements in personal income equality before 2007 were accompanied by falling labour income shares, whereas, more recently, deterioration in personal inequality pairs with more or less stationary labour shares. This is in contrast with what usually happens, as declining labour shares and improved macroeconomic performance do not translate into improvements in the distribution of personal income (Atkinson, 2009b). And data show also that a higher capital share is accompanied by higher inequality in personal distribution (Piketty, 2013). This implies that other factors must have been more relevant. One such factor are sources of income that are different from labour for some workers at least, which can be related to the accumulation of relevant financial assets during the period up to 2007. The subsequent financial crisis can then easily account for deteriorating personal equality even with rather unchanged labour income. More recently, it has also been shown that policies other than those specifically devised for equality have been able to influence it. In fact, Lenza, Slacalek (2018) find that quantitative easing also caused a reduction in inequality by lowering the number of families being unemployed and thus compressing the income distribution.

The rising poverty and inequality have reinforced the negative effects of the Great Recession and the tendency towards stagnation. However, it must be said that the impact of poverty and inequality on long-term growth has been the object of inquiry of a number of modern theoretical and empirical studies that reach different conclusions. Some theoretical analyses show positive effects linked to the top part of the income distribution, as this can boost savings that are available for investment and allow at least some individuals to acquire a good education and accumulate the minimum needed to start businesses (Barro, 2000). Some other analyses indicate negative effects, depending on the share of the bottom part of income distribution, since it: i) deprives the poor of the ability to stay healthy and accumulate human capital (Perotti, 1996, Galor, Moav, 2004, Aghion et al, 1999); ii) generates political and economic instability that reduce investment (Alesina, Perotti, 1996); and iii) impedes the social consensus required to adjust to shocks and sustain growth (Rodrik, 1999). The relationship between inequality and growth may be nonlinear: "increases in inequality from low levels provide growth-enhancing incentives, while increases past some point encourage rent-seeking and lower growth". The net effect is indeterminate, depending on the relative strength of each and the overall inequality (Ostry et al, 2014: 8)."

Empirical analyses can then be useful, even if they cannot be considered as diriment, since they only indicate some possible regularities across countries subject to the influence of history and the whole set of institutions and the economic and social conditions of each country. Nevertheless, results of such analyses are striking in indicating the negative impact on growth of different features of inequality (Cingano, 2014).

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8 See also Ravallion (2016).
4. Conclusions

As a conclusion to this analysis, we can say that the crisis has had a relevant negative impact on equity. The progress that had been registered before 2007 has been lost since and the situation has even worsened.

To some extent, one can say that the very factor that allowed more equality before the crisis, i.e., a rather high rate of growth also in peripheral countries, originated the crisis and produced a negative impact on equity. In fact, growth in peripheral countries derived from excessive capital inflows, due to current and capital account imbalances, caused the formation of asset bubbles there.

There are two possible concurring explanations for that: one focuses on the behaviour of deficit (or peripheral) countries, the other focuses on the behaviour of surplus (or core) ones. The interaction of both certainly determined the final outcome. A distinction can be drawn between the different – but closely interdependent (Hein, 2012) - growth strategies of member countries: an “export-led” growth model in the core and a “credit-led” growth model in the periphery (Stockhammer and Onaran, 2012) that could not last after the crisis. Then, the reasons underlying the crisis appear worth being analysed further, but we cannot deal with them here.

Only the welfare state has succeeded in mitigating the negative impact of the crisis on equity, but at the cost of further burdening public finances, especially in peripheral countries. This casts a shadow on the ability of the welfare state to perform the same role in the future, unless the austerity regime derived from the institutional set-up of EMU institutions and the deflationary policies imposed to tame the crisis are overcome.

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