RISING INEQUALITY IN THE EU
THE ELEPHANT IN THE ROOM

Rising inequality is the elephant in the European room: everybody knows it is there and that it is an obvious problem, but no one wants to either discuss the problem or address it. Macroeconomic issues have taken the front seat, and inequality might be dropped in the conversation when it has relevance from a macroeconomic perspective: maybe we should reduce inequality to fight secular stagnation (Fitoussi and Saraceno, 2011), especially because inequality can be self-reinforcing through secular stagnation; maybe we should reduce inequality to enhance growth in a world of credit-constraint households, because growth is the final goal of our policies (Birdsall *et al.* 1996). The fact that, maybe, we should aim for socio-economic equality for itself and not for some other macroeconomic objective seems to have disappeared in the presence of other urgencies. Paradoxically, Thomas Piketty's *Capital in the 21st Century* has spurred a global debate, but not a European one. The *Capital* is on everybody's lips from New-York to Hong-Kong through Rio, but not in Brussels—although it is in everybody's mind, hence the Elephant in the Room. But, perhaps it is so because Piketty has placed attention on high and very high income, which is less of a subject in stagnating economies.

Important questions are not being raised, or are not heard enough: what does socio-economic equality even means in a European perspective? Should we worry about regional convergence as we traditionally do in Europe? We see in the present chapter that European regional convergence stopped with the crisis. Should we worry about household income inequality at the national level? The situation is more ambiguous, some countries are experiencing a decrease in inequality while others are experiencing an increase. In many countries, social transfers have so far mitigated the rise in market income inequality. Should we worry about absolute or relative poverty? We show that absolute poverty, measured by material deprivation has risen a lot in recent years. Or, should we worry about household income inequality at the *European* level? Eurostat does not follow the path of Milanovic (2012), formerly at the World Bank, who advocates the use of a Global Income Gini which analyses the distribution of individual income around the world regardless of national residence. The only EU Income Gini calculated by Eurostat is the average of national Gini coefficients. National and regional convergence are also analyzed but both approaches (between-groups and within-groups inequality) are never combined. Household inequalities are always measured at the national level, and not at the European level. It has been argued it is legitimate because it is the level of the political community, at which public policies are implemented. But what are the European Union and the euro area if not political communities of some sort? Aren't public policies implemented as well throughout the European Union and the Eurozone? When 18 nations share a common currency and pursue fiscal consolidation in the name of a common public good, isn't it time for them to think of a way to consider the question of justice, at least in its economic dimension?

Ironically, the euro area crisis, which arguably is fundamentally due to a deliberate choice of an absence of between-states solidarity, has not really spurred the global debate over euro area or EU Economic justice, even though there are some partial debates, notably over the Banking Union, and a European Unemployment Insurance Scheme (Jara and Sutherland, 2013). The analysis included in this chapter shows an increase in European inequality and poverty following the crisis, in part due to rising unemployment. If on average, national Gini coefficients are fairly stable over time, the global European Gini has risen since 2009, 97% of the increase being the consequence of the rise of inequality between countries.

In his book, Piketty argues for the implementation of a Wealth Tax at the European Level, at first at very low rates. One point is that with taxation comes knowledge. Indeed, it's very difficult to know today the level of concentration of wealth in Europe: as discussed in the chapter, surveys of wealth have considerable flaws. Our knowledge of the distribution of income is due to the implementation of income tax. Income tax data are a lot more reliable than declarative survey data. Taxing wealth even at very low rates would therefore improve our knowledge of the world. It would not be absurd to do it among the countries which form the banking union. Definitely, a banking union implies some solidarity. From an individual perspective, there is a Deposit Guarantee Scheme (harmonized but left to national responsibility) that covers deposits up to €100.000. However, in the absence of wealth consolidation across banks, the protection ceiling must be understood per depositor per bank, meaning the same depositor can be covered up to €1.000.000 if she deposits in 10 different banks. This seems neither equitable nor efficient. Individual wealth taxation, and therefore wealth tax returns, would give knowledge of whom, individually, is actually rescued when the banks are rescued or deposits guaranteed, a first small step towards European economic justice. Cyprus has proven that the worst case scenario can happen and that justice is then a primary concern: perceived injustice might hinder a swift response in case of emergency.

With better knowledge, we believe there will come better deliberation and therefore better policies. But knowledge comes first, which is one reason we do not engage in a detailed policy agenda at this point. Europe is in a unique situation because nation-states have not given up sovereignty but shared it with a higher level. The European Union is not one single nation, like the United States, and it probably never will be. We probably need to adopt a *cosmopolitical* perspective with several levels of interaction: within nations, between nations, but also between individuals across the European political community. European institutions are needed to animate this public debate (Parodi, 2013). European economic justice is a missing part in Piketty's *Capital in the 21st Century,* which might also explain why inequalities are like an elephant in the European room.

1. The end of regional convergence

Regional convergence is the traditional way to assess inequality *across* the European Union. The European Regional Development Fund (ERDF), established in 1975 is the first, and still main policy instrument aimed at reducing inequality across Europe. Prior to the crisis, a regional convergence could be observed. Figure 1 shows that between 2000 and 2008, the Nuts 2 regions which enjoyed the greatest average annual growth are also the ones with the lowest initial level

of GDP, which implies convergence between European regions. It can be argued that this convergence was obtained at the cost of an unsustainable dynamic (like in Greece). This point is rather difficult to prove or to dismiss, and can be made as a general caveat to all kind of convergence processes. Nevertheless, by itself convergence is not unexpected from a theoretical point of view, and it seems that the burden of the proof should be on the doubters.

The great recession has not been felt equally in Europe. Obviously, some regions have been hurt more than others. Figure 2 shows a different picture from figure 1, consistent with the end of regional convergence. It can however be said that the crisis has stopped regional convergence in the EU.

**Figure 1. 2000-2008: Regional convergence in the EU**
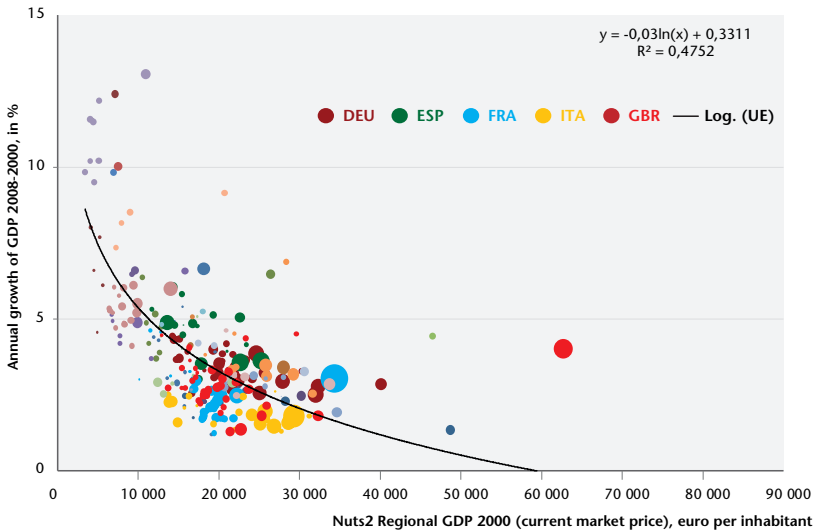
Note: Size of circles are proportional to population.
Sources: Eurostat, iAGS calculations.

Map 1 shows which regions benefited from the highest growth between 2008 and 2011. It is clear that national borders keep their importance: regions which enjoy lower growth are found mostly in Greece, Spain, United Kingdom, while German, Swedish and Bulgarian regions enjoy higher growth. Despite that observation, regions of a given country do not share a common evolution. Regions of Italy, Spain or UK are decidedly heterogeneous in their fate.
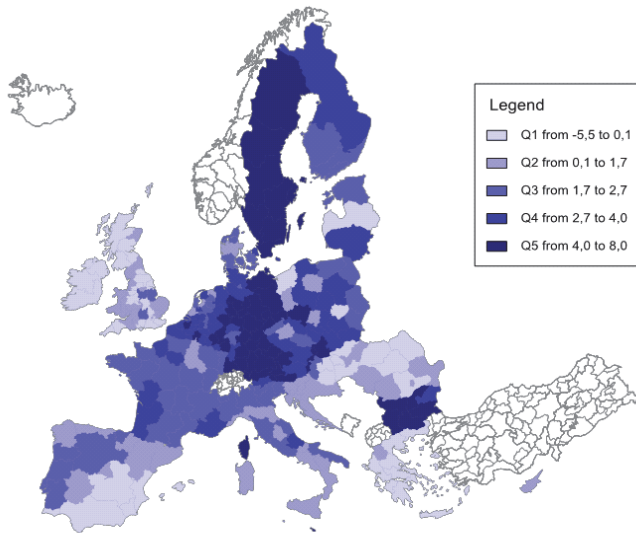
Figure 2. 2008-2011:The end of Regional convergence in the EU
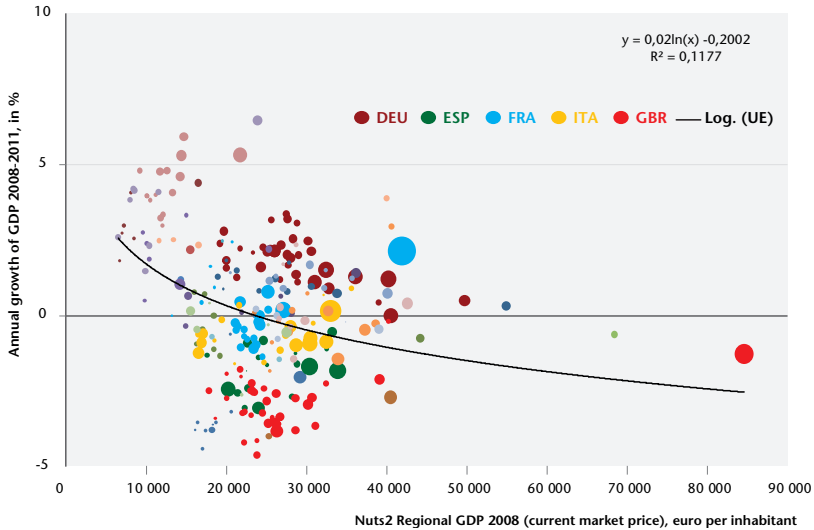
Note: Size of circles are proportional to population.
Sources: Eurostat, iAGS calculations.

Map 1. Change of GDP per inhabitant by NUTS 2 Regions, 2008-2011 (In %)

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Source: Eurostat.

2. European labour market still suffers

Six years after the economic crisis, European labour markets still suffer in the wake. Although it seems that the tide is turning, unemployment rates are still sky high in many countries. Employment, depressed by the crisis has continued to decrease after the European countries took austerity measures in 2011, but has finally begun to increase in 2013, since that year employment is up by 2 million people. Combined with a shrinking labor force, this has caused a turnaround in the unemployment rate in 2014. But the recovery is still very slow.

The level of long-term unemployment is still dangerously high. Figure 3 shows that long-term unemployment in EU28 is slowly decreasing, but the level is still very high with just over 5 percent of the labor force, corresponding to some 12 million people, having been unemployed for a year or more. After a rapid rise in the Euro area since 2011, long-term unemployment seems to have stabilized during the last year, but with more than 6 percent of the labor force corresponding to some 9½ million people, who have been without work for more than 12 months, long-term unemployment within the Euro zone remains at its highest level since the outbreak of the crisis.

Figure 3. Unemployment
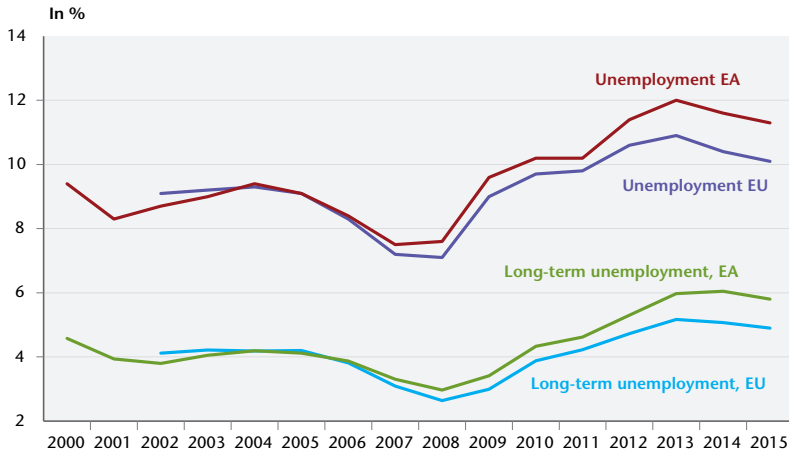
Note: 2015 iAGS forecast.
Source: Eurostat.

Increasing unemployment has impacted each member state differently. Figure 4 shows the long-term unemployment rate before and after the crisis. Germany is the only country which has a lower rate of long-term unemployment today than before the crisis broke out in 2008. The countries with increases below one percentage point are Luxembourg, Malta, Austria, Finland and Belgium. At the other end of the scale Spain has had an increase of 11 percentage points and Greece of almost 15 percentage points.

Figure 4. Long term unemployment
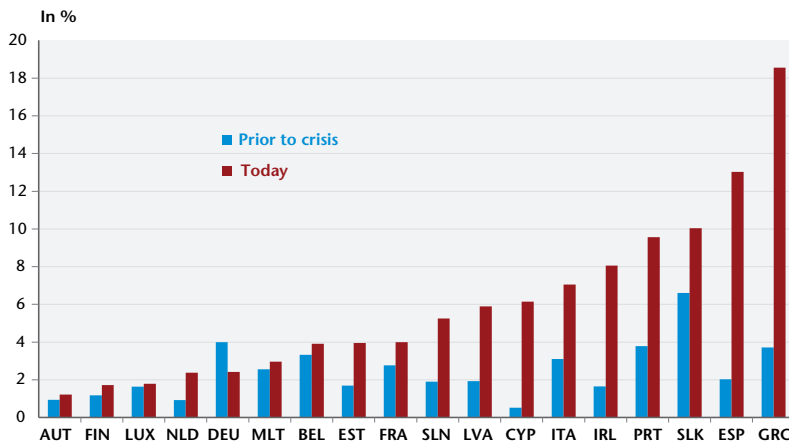
Note: Prior to crisis is 2008 and today is 2013.
Source: Eurostat.

Long-term unemployment is only expected to drop slowly in the course of 2015. In 2015 long-term unemployment could well be around 11½ million people in the EU-28 and around 9 million in the Euro area. From a historical point of view these are still alarming levels of long-term unemployment.

The slow speed of the economic recovery in Europe may marginalize people in even longer-term unemployment. Even though long-term unemployment and unemployment in general is decreasing in EU28, the number of people being unemployed for more than 48 months is still increasing. This suggests that long-term unemployed bear a high risk of being marginalized and have a harder time finding a job after being away from employment. In EU28 the number of people being unemployed for more than 48 months has increased from 1.8 million people before the crisis to 3.1 million people in the second quarter of 2014. For the euro area the number has increased from 1.5 million people to 2.6 million people in the same period. This means that one in four long-term unemployed have been away from employment more than 48 months. There is an imminent risk of long-term unemployment becoming structural and there is therefore need for more active labor market policy and economic growth to reverse the trend in order to prevent hysteresis effects.

Young people have struggled to find work during the crisis. The level of youth unemployment remains high. In the EU28, 5 million people between 15-24 years are unemployed, while the number is 3.3 million people in the euro area. Of the 5 million unemployed young people in EU28 more than 1.8 million, or more than one in three, have been unemployed for more than 12 months. In the euro area the number is more than 1.3 million people which correspond to around 40 percent of youth unemployment also being long-term unemployment.
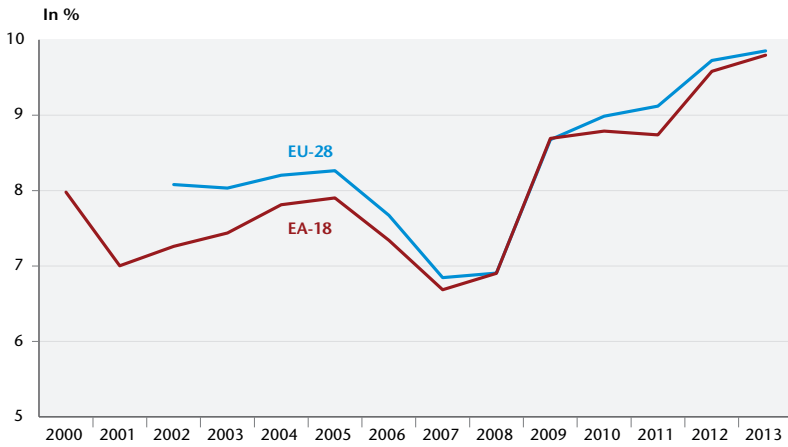
In some countries the youth unemployment rate has skyrocketed with unemployment rates exceeding 50 percent. Many young people are however not an active part of the labor market and instead of looking at the traditional youth

unemployment rates it is also useful to look at unemployment ratios, i.e. the number of young unemployed as a share of the population (Figure 5 and Figure 6).

The unemployment ratio for the 15-24 year olds is around 10 percent in both the EU and the Euro area which from a historical perspective is a very high level.

Youth unemployment ratios are very high in the troubled countries in southern Europe. Thus in Spain and Greece 16.5 percent and 21 percent of the youths are unemployed while it is only around 5 percent of the youths in Luxembourg, Germany and Austria.

Figure 5. Youth unemployment ratio

In %

EU-28

EA-18

Source: Eurostat.

Figure 6. Youth unemployment ratios, selected countries

In %

■ Prior to the crisis
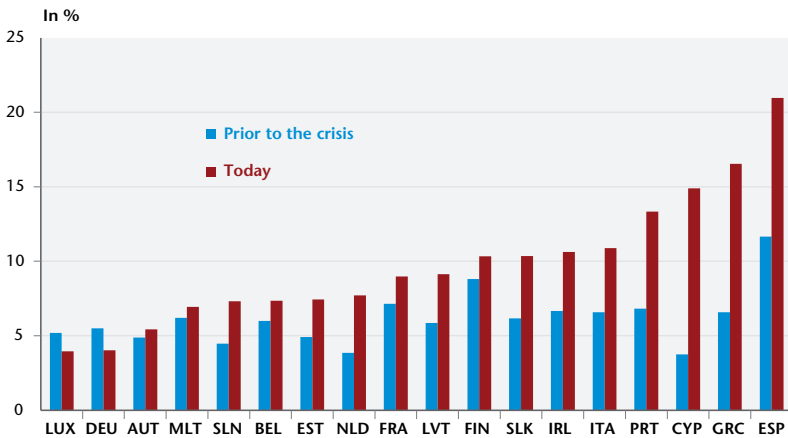
■ Today

Note: seasonally adjusted data. Prior to crisis is 2008 and today is 2013.
Source: Eurostat.

Instead of looking at unemployment among youths which can also include young people who no longer at school but can't find a job one can also look at NEET-rates that measure the share of young people active or not active who are Not in Employment nor in Education or Training (hence, NEET).

Figure 7 shows the NEET-rates in the individual EU-countries for the 15-29 year olds prior to the crisis (2008) and today (2013). As one can see many of the countries that experience the highest unemployment rates among young people are also among the countries that have the highest NEET-rates.
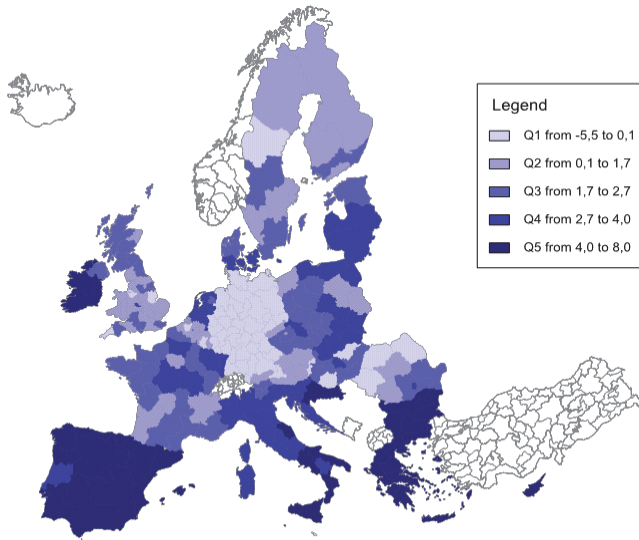
Figure 7. NEET-rates (young people not employed nor in education or training)
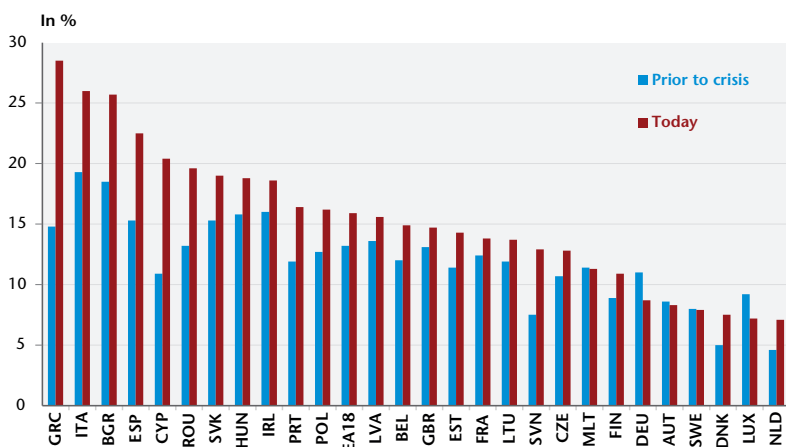
Source: Eurostat.

Map 2 shows the regional evolution of unemployment between 2008 and 2011. We can see that regions in Southern Europe and Ireland clearly suffered the sharpest increases. It is especially striking to see how easily recognisable national borders are. For example, German territories are not easily mixed up with French territories and French territories are not mixed up with Spanish ones.

Map 2. Change in unemployment by NUTS 2 Regions, 2008-2011 (In %)

Legend

Q1 from -5,5 to 0,1
Q2 from 0,1 to 1,7
Q3 from 1,7 to 2,7
Q4 from 2,7 to 4,0
Q5 from 4,0 to 8,0

Realised with Cartes & Données - © Articque

Source: Eurostat.

Box 1. Recession and austerity: Gender equality jeopardized [1]

The crisis that began in 2008 has hit European countries diversely, causing economic and labour market disequilibria of greater or smaller magnitude. As with past global crises, the current one has gendered implications. While women's employment is said to be preserved relative to men's in the early stage of a recession, austerity plans implemented in several countries to limit public deficits and debts are deemed to affect female workers more deeply. A special issue of the *Revue de l'OFCE* (Eydoux *et al.*, 2014) sheds light on the gendered dimensions of the current crisis and related policies' impacts on European labour markets. It notably points out the (temporary) protective role of the gendered segregation of labour markets (i.e. the fact that women and men do not work in the same sectors or occupations): male-dominated sectors (construction, industry, etc.) are generally first hit in recession, while female-dominated sectors (services and the public sector) remain quite sheltered from a quick drop in the demand for labour—but are exposed to job losses at a later stage. This special issue explores the relevance of common hypothesis about the gender impact of recession and austerity: the segregation and buffer effects on the demand side and the discouraged-worker or added-worker effects on the supply side of the labour market. The timing of recessions also differs across

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1. This box is a contribution from Anne Eydoux (CEE), Antoine Math (IRES) and Hélène Périvier (OFCE)

countries. Several phases with different gender implications often alternate: the recession, the austerity phases, and an intermediate phase of recovery. When it comes to the analysis of crisis related policies, the phases may however be over-lapping instead of alternating, for instance when austerity measures are implemented prior to the crisis—eventually in line with European economic governance rules or with a previous downturn.

In Germany, female employment has apparently been spared from the effects of recession in quantitative terms, the focus is on the low quality of women's jobs. In central and eastern Europe, as well as in southern countries such as Greece, Portugal and Spain, male and female employment has been so deeply affected that poverty and material deprivation have increased for all. In the UK, the impact of the recession and austerity has been selective, increasing existing inequalities by gender and by ethnicity, as well as within each category. In Sweden, where the public sector is widespread and female-dominated, the impact of recessions on women's employment has been delayed, occurring in austerity phases through the downsizing of the local government sector.

Finally, the long-term changes in labour market or public policies induced by the recession and austerity affect the trends in female and male employment. In many European countries, changes in public policies are liable to jeopardize the progresses towards gender equality.

3. Rising poverty and material deprivation

Many Europeans have experienced decreases in living standards during the crisis, resulting in increases in poverty rates. The anchored risk-of-poverty rate is the preferred measure when analyzing changes in poverty over time, as the median income is anchored in a specific year, in this case 2008 (see chapter 2 in the iAGS 2014 for an elaboration on the difference between different poverty measures and the difference between anchored and un-anchored poverty rates).

An increase in the anchored poverty risk over time indicates that the living standards of low-income households are worsening compared to the base year (2008), and a decrease indicates that living standards are improving. The risk of poverty has increased mostly in a number of southern and eastern European countries (Figure 8). Greece stands out with an increase in the risk of poverty of nearly 25 percentage points, and this from one of the highest starting points: the risk of poverty has increased from 20 pct. to nearly 45 pct. (with respect to 2008 median income), with the largest increases in the last two years. On the other hand the risk of poverty has decreased in eastern European countries like Poland, Slovakia and Romania.

The change in the anchored poverty rate since 2008 is highly correlated with the change in GDP, confirming that the countries which have been hit the hardest during the crisis are also the countries which have experienced the highest increase in poverty (relative to 2008 income) (See Figure 9).

The severe material deprivation rate is another poverty indicator. Instead of looking at income, the severe material deprivation rate shows how individuals experience inadequate access to basic amenities. Severe material deprivation is a more narrow indicator than the at-risk-of-poverty rate. Other measures such as

the poverty rate and Gini-coefficient of income can be difficult to compare between countries and over time because they measure relative inequality. The severe material deprivation rate is defined as the declared inability to pay for a certain number of necessary items (see box 2 for a more detailed description of the severe material deprivation rate).

Figure 8. Change in the risk of anchored poverty 2008-2013
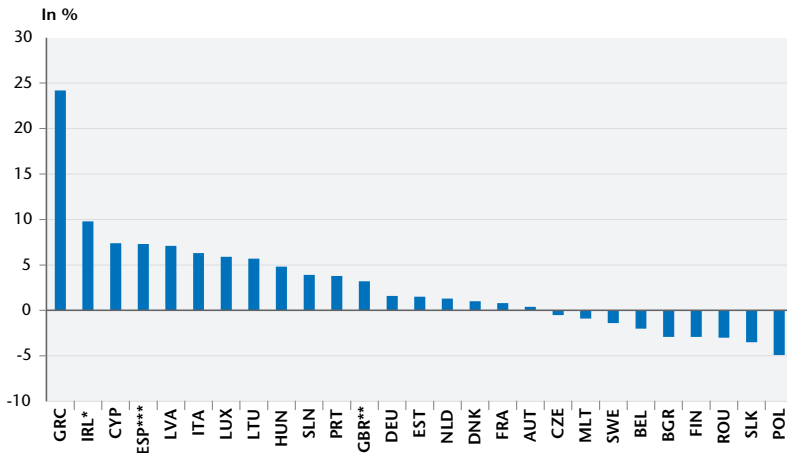
Note: (*) latest data from 2012. (**) latest data from 2011 due to breaks in time series. (***) latest data from 2012 due to breaks in time series.
Source: Eurostat.

Figure 9. Correlation between change in GDP/capita and change in anchored poverty 2008-2013
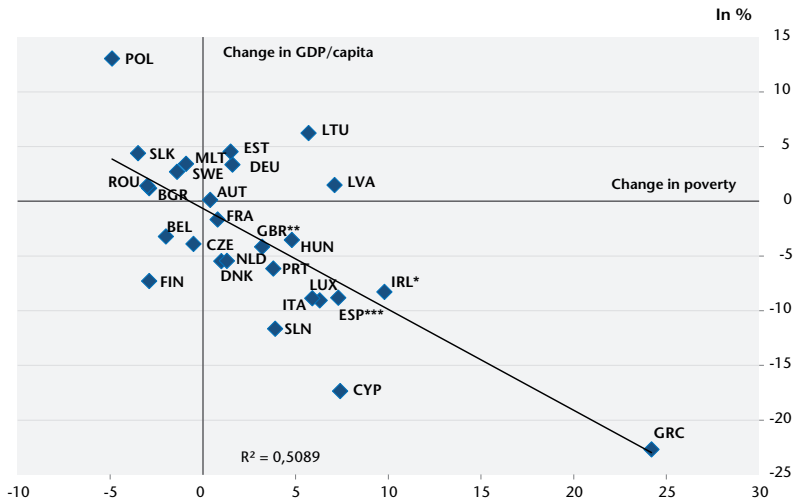
Note: (*) latest data from 2012. (**) latest data from 2011 due to break in time series.
Source: Eurostat.

Box 2. Definition of severe material deprivation rate

The severe material deprivation rate is an EU-SILC indicator based on the affordability of a selection of items (goods or services) considered to be necessary or desirable for people to have an 'acceptable' standard of living in the country where they live. The indicator distinguishes between individuals who cannot afford a certain good or service, and those who do not have this good or service for another reason, e.g. because they do not want or do not need it. The severe material deprivation rate is defined as the enforced inability to pay for at least four of the below-mentioned items.

1. to pay their rent, mortgage or utility bills;
2. to keep their home adequately warm;
3. to face unexpected expenses;
4. to eat meat or proteins regularly;
5. to go on holiday;
6. a television set;
7. a washing machine;
8. a car;
9. a telephone.

*Souce: EU-SILC (Eurostat).*

Figure 10 shows the change in the severe material deprivation rate since 2008. Greece and Hungary, followed by a number of southern and eastern European countries, have experienced the highest increases in severe material deprivation.

Figure 11 shows the change in the severe deprivation rate for children. The ranking among the countries mirrors to a large extent the ranking for the overall severe deprivation rate. In Hungary and Greece severe material deprivation has increased by 13 percent or more since 2008. There is a tendency that the rate among children has increased more than the average rate, indicating that children are hit harder by material deprivation than other age groups. Growing deprivation among children is very concerning since lack of opportunities during childhood is likely to have long-term consequences for the concerned individuals as well as for society as a whole.

As shown in Figure 12, the increase in the severe material deprivation rate is mainly driven by an increase for the unemployed and other inactive persons (i.e. not retired). In other words, the rate has increased much more for people outside the labour market than for employed and retired individuals, resulting in close to one out of four unemployed experiencing material deprivations.
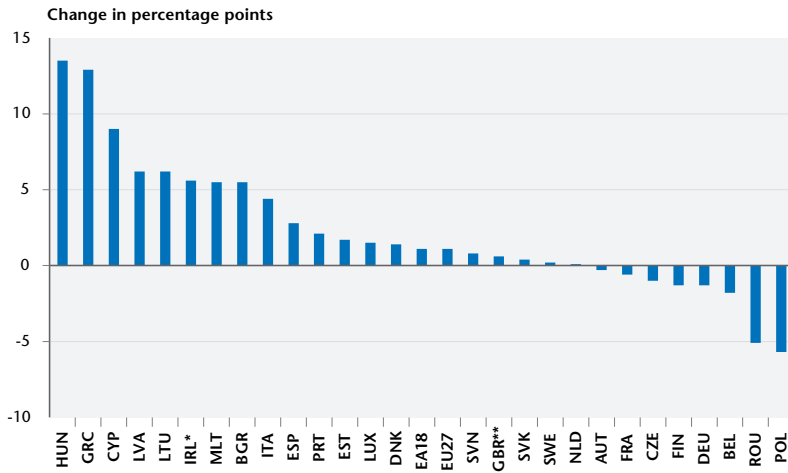
Figure 13 shows the correlation between change in GDP and change in severe material deprivation from 2008-2013. There is a clear negative relationship, meaning that the countries whose economies where hit the hardest during the crisis are also the countries that have experienced the highest increases in severe material deprivation.

Figure 10. Change in severe material deprivation rate 2008-2013
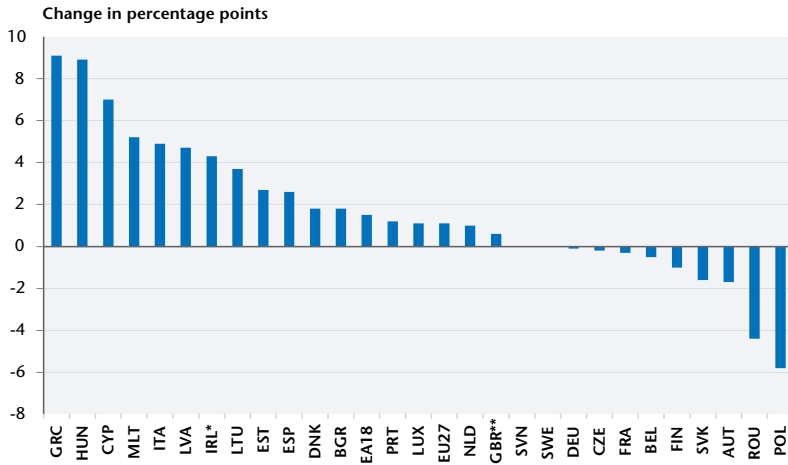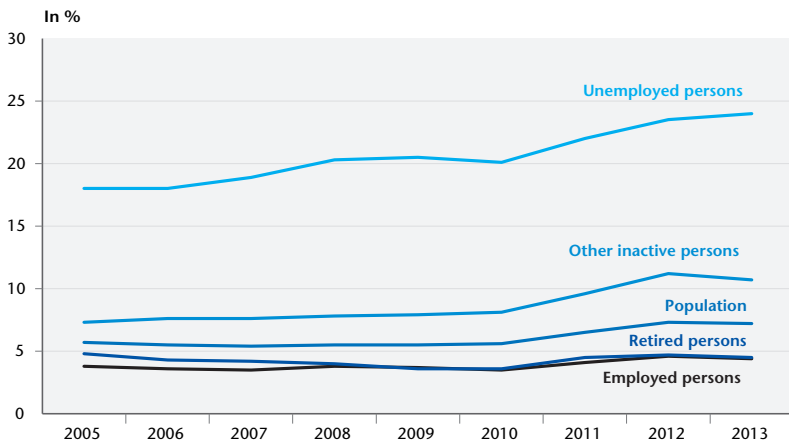
Change in percentage points

Note: (*) latest data from 2012. (**) latest data from 2011 due to break in time series.
Source: Eurostat

**Figure 11. Change in severe material deprivation among children
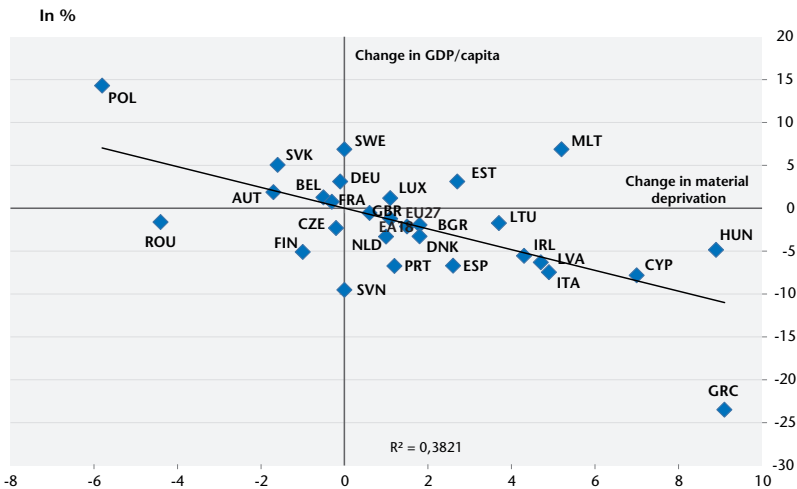(0-18 years) 2008-2013**

Change in percentage points

Note: (*) latest data from 2012. (**) latest data from 2011 due to break in time series.
Source: Eurostat.

Figure 12. Development in severe material deprivation by activity status in the euro area

Source: Eurostat.

Figure 13. Correlation between change in SMD and change in GDP/capita 2008-2013
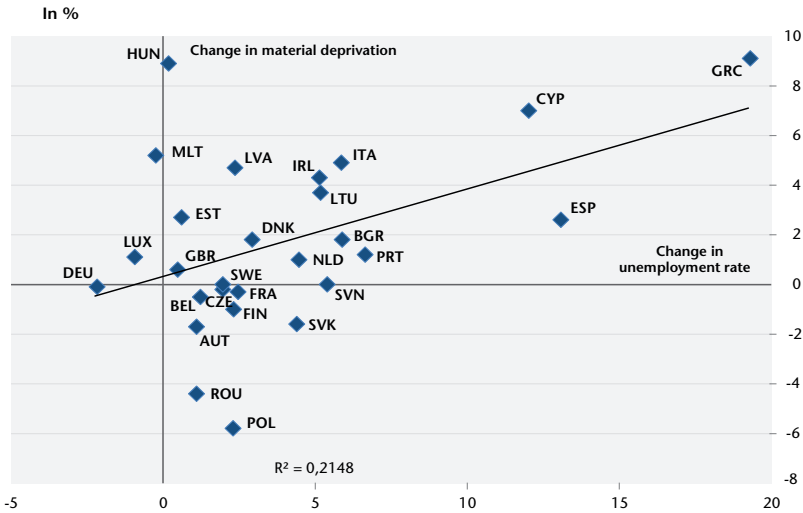

Note: (*) last data from 2012. (**) last data from 2011 due to break in time series.
Source: Eurostat.

The same picture is shown when looking at changes in unemployment and changes in severe material deprivation. There is a clear positive correlation between the two, indicating that a large increase in unemployment results in a large increase in severe material deprivation.

Figure 14. Correlation between change in unemployment and change in SMD 2008-2013

In %

Note: (*) last data from 2012. (**) last data from 2011 due to break in time series.
Source: Eurostat.

4. The drivers of material deprivation

The descriptive analysis above clearly suggests that there has been some correlation between the changes in GDP, unemployment, social protection expenditures the severe material deprivation across Europe.

In the following we have taken an econometric approach in looking at the drivers of material deprivation. By panel data estimation we have estimated the following equation:

$$\Delta SMD = \alpha\, \Delta GDP + \beta\, \Delta GDP_{-1} + \gamma \Delta LTUNR_{-1} + \delta\, \Delta SPE_{-1} + C + \mu$$

where the dependent variable is:

ΔSMD, the change in the severe material deprivation rate

and the explanatory variables are:

ΔGDP, the growth rate in GDP per capita

$\Delta LTUNR_{-1}$, the lagged change in the long term unemployment rate

ΔSPE_{-1}, the lagged percentage change in social protection expenditure (*SPE*) volumes (euros/inhabitant)

C, a constant term

and μ, the error term

Table 1. Effects on the change in severe material deprivation (ΔSMD)

	Coefficient	Std	T-value
Growth rate in GDP/per capita (α)	**-0.115**	0.032	-3.65
Lagged growth rate in GDP/per capita (β)	**-0.113**	0.040	-2.79
Lagged change in the long term unemp.rate (γ)	**0.313**	0.117	2.68
Lagged percentage change in SPE (δ)	**-0.039**	0.013	-3.06
Constant	**0.102**	0.113	0.90

R^2 = 42
Number of countries : 27
Number of observations : 185
Wald (joint):Chi$^{2(4)}$ = 48,46 [0.000]

Note: We tested for both autocorrelation and unit root and neither are found in the data.
Sources: Eurostat and iAGS calculations.

As seen from the regression results in Table 1, all the variables are significant. The change in GDP per capita both in the same as well as in the year before has a very significant negative influence on the change in material deprivation, meaning that negative growth in GDP per capita tends to increase the severe material deprivation rate both in the current year and the year after. If GDP per capita (in volumes) shrinks by 1 percent it will on average pull up the severe material deprivation rate by 0.1 percentage points in the current year and in the year after.

Also, long-term unemployment is an important driver for material deprivation. If long-term unemployment increases by one percentage point the severe material deprivation rate will follow in the year after with an increase corresponding to 0.3 percentage points. When determining some of the drivers of material deprivation, we also tried including the change in unemployment in the equation, but the change in unemployment turned out to have a less significant influence on material deprivation compared to long-term unemployment. This result confirms the expectation that unemployment in itself does not necessarily lead to material deprivation, as people tend to start using their savings when they get unemployed. Once they have been unemployed for a while the savings run out, however, and the unemployment leads to material deprivation. Long-term unemployment (but not necessarily short-term unemployment) is therefore an important source of poverty and material deprivation.

Finally we find a significant negative effect from the change in the expenditures on social protection. This indicates that austerity is also a leading driver increases in material deprivation. The estimates suggest that that the more a country tightens its fiscal policy, in the form of decreasing social protection expenditures, the larger the increases in material deprivation. If social protection expenditures (in volumes euros per inhabitant) decrease by one percent then it will lead to an increase in the severe material deprivation rate of 0.04 percentage points in the year after.

The regression results support the idea that poverty and material deprivation are closely connected to not only the economic cycle and the development on the labour market, but also to policies influencing social protection.

5. Rising European inequality of income

When it comes to measuring income distribution and relative inequalities, the Gini coefficient of equivalised disposable income is the main indicator. The Gini coefficient ranges from 0 to 1, where the Gini is zero in a country where all people have the same equalized disposable income (perfect equality), and 1 in the case where one person has all the income (perfect inequality). Gini is an indicator of relative inequality in the sense that if all income increases or decreases by the same percentage the Gini will not change. For the last 5 years, since the crisis broke out, there is large spread in the variation of the Gini coefficient throughout Europe. There are large increases in some countries, notably southern European countries such as Cyprus, Spain, Italy and Greece. On the other hand income inequality has decreased in the Netherlands and Portugal (Figure 15). In Portugal this is explained by the fact that top income were hurt even more than low-income.

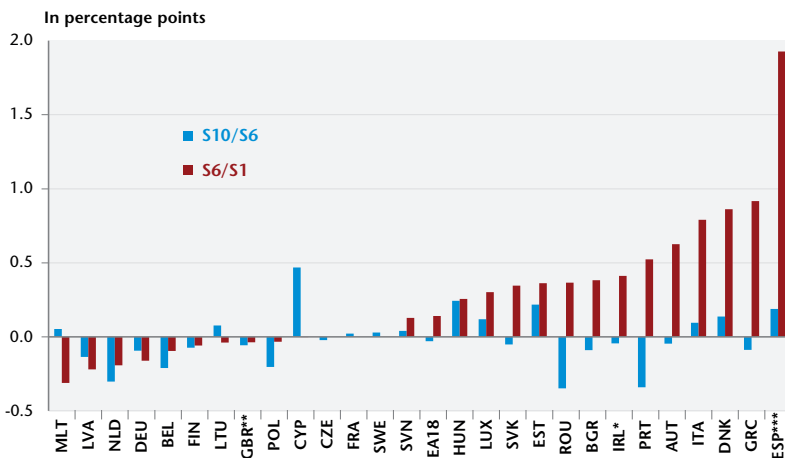**Figure 15. Change in Gini coefficient 2008-2013**
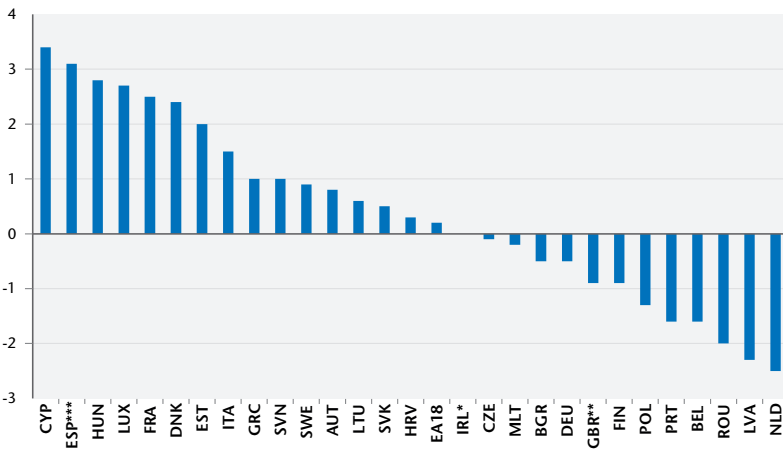
Note: (*) last data from 2012. (**) last data from 2011 due to break in time series. (***) last data from 2012 due to break in time series.
Source: Eurostat

Another way to measure income inequality is through income decile shares. This allows us to decompose inequality change into what is driven by the bottom and what is driven by the top of the income ladder. Figure 16 shows the evolution of inequality in the top of the income scale (S10/S6) as well as the evolution in the bottom (S6/S1). S10/S6 is the ratio of the share of income earned by the richest 10 pct. (S10) to the share of income earned by the 6th decile of equalized income (S6). An increase in S6/S1 indicates an increase in inequality in the bottom part of the income ladder since the income earned by the poorest has decreased relatively to the income received by the 6th decile. We can see in Figure 16 that the rise in inequality in Spain, Greece, and Italy is mainly driven by a rise in inequality in the bottom part of the distribution. In Portugal and in Romania, the rise in

inequality in the bottom part of the distribution is offset by a decrease in inequality in the top part of the distribution. Between 2008 and 2013, most countries that experienced a decrease in the Gini coefficient have seen a fall of inequality in the top of the distribution.

Figure 16. Evolution between 2008 and 2013 of share of national equivalised income

Note: (*) last data from 2012. (**) last data from 2011 due to break in time series. (***) last data from 2012 due to break in time series.
*Source:* Eurostat.

Concerning regional inequality of disposable income, we can see the same convergence/divergence trends as with GDP (Figures 1 and 2): the convergence that was occurring before the crisis stopped after 2008.

Figure 17 compares the global European Gini of household equivalised disposable income to the level of national Gini coefficients. The global European Gini compares household income regardless of national residence. Eurostat does not calculate a European Gini: we used microdata (EU-SILC) to do it. There might be some small differences with the Gini coefficients calculated by Eurostat, partly explained by the treatment of negative income (we exclude them).

The Figure shows that Europe as a whole is more unequal than any other country in the union. Inequality in the European Union is in fact comparable to that prevailing in the United States.

Figure 18 shows the evolution of European global inequality, which compares all households regardless of residence. In the European Union as a whole, while inequality was rapidly falling between 2008 and 2009, it has been rising since 2009. In 2012, global inequality is slightly higher in the European Union than in the United States. Global inequality is much lower in the Eurozone but it is also rising since 2010. The Gini in the EU27, as calculated by Eurostat is also shown in the figure. It is much lower than the global European Gini. It is also stable between 2009 and 2012 whereas global Gini is strongly increasing. Eurostat's statistics on inequality do not reflect the divergence between countries since 2009.

Figure 17. Gini of household equivalised disposable income across Europe and European global Gini
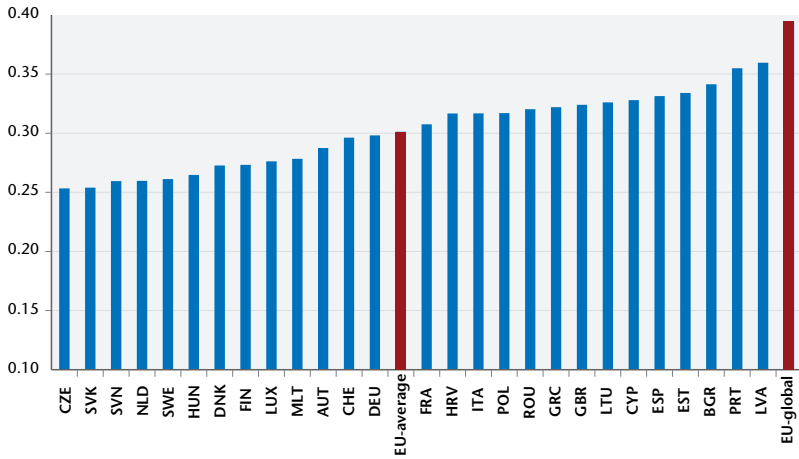
Sources: EU-SILC, iAGS calculations.

For the EU, the Figure uses both the Gini and the Theil index. The Theil index is another statistic used to measure economic inequality. It is very comparable to the Gini coefficient. As the Figure 18 shows, the differences in the evolution of the two measures are fairly small.

Figure 18. Evolution of inequality in EU, Eurozone and United States
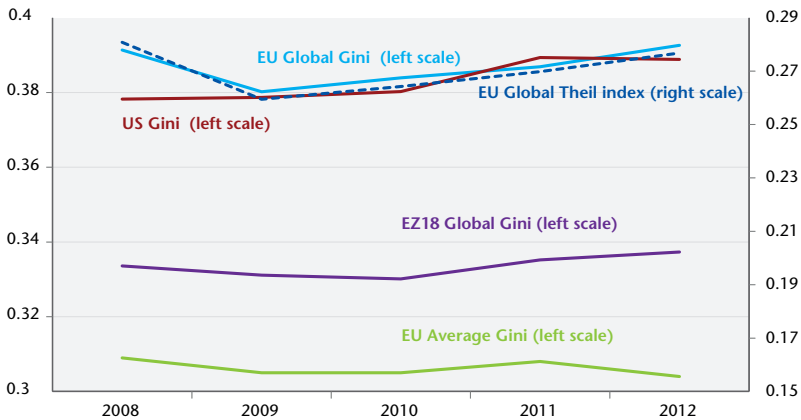
Sources: EU-SILC, OECD, iAGS calculations.

Unlike Gini, Theil index can be decomposed into between-groups inequality and within-groups inequality. The decomposition allows us to distinguish what part of inequality is due to inequality within the groups, here within member states (MS), and what is due to inequality between MS. The within-group inequality is just the weighted average of the Theil index within each nation. The between-group inequality is the inequality that would prevail if individuals (here, households) within each MS earned the average national income, i.e. if there were no inequality within each nation. Figure 19 shows that the increase in inequality since 2009 is mainly due to an increase in between-countries inequality. In fact, 97% of the increase in global European inequalities since 2009 is due to the divergence between countries.

Figure 19. Within/between-country decomposition of the evolution of the Theil index

Sources: EU-SILC, iAGS calculations.
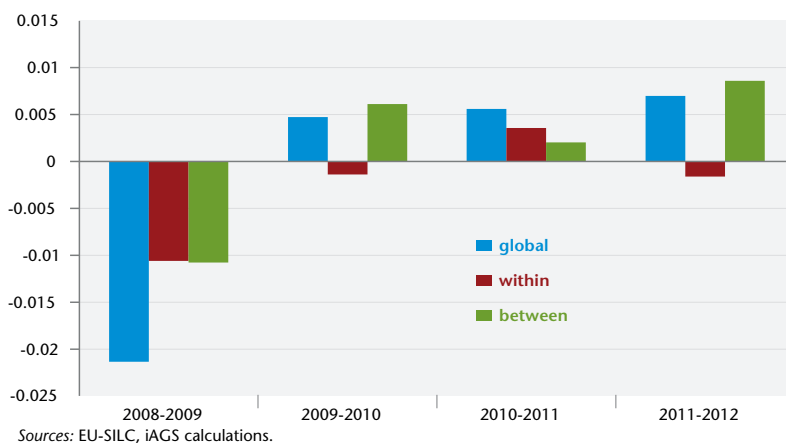
6. High concentration of wealth in the Eurozone[2]

Since the onset of the economic and financial crisis, there has been a growing interest in assessing the financial stability of the household sector. This is closely related to the distribution of wealth in private households in the Eurozone. Against this background, the European Central Bank collected data on private wealth with the Household Finance and Consumption Survey (HFCS) for the first time in 2010. This survey provides a unique opportunity to analyse harmonised information on household wealth in 17 Eurozone countries. Even though the development over time will only be visible after the second wave of the survey in 2014, the HFCS provides the best prospects for future research on wealth inequality in Europe.

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2.   This section is a contribution from the Austrian Institute AK Wien.

The HFCS uses a rather narrow, "accounting-style" definition of wealth. Wealth, according to this definition, consists of economic assets which can yield returns. It must be possible to valuate and sell them, to use them as collateral for loans, and to attribute them to persons. This means that a number of wealth categories are excluded, such as social assets (e.g., pay-as-you-go pension systems, unemployment insurance, health insurance), environmental assets (e.g., clean water, clean air, a lack of noise pollution), and human capital (i.e., the human capacity to produce returns). The household balance includes assets and liabilities. Assets include real assets (such as the main residence, additional real estate, vehicles, and company shares) and financial assets (such as checking and savings accounts, funds, stocks, and bonds). Liabilities include secured and unsecured debts. The result of assets minus debts is net wealth.

Figure 20 shows the distribution of net wealth across the Eurozone. The median household, which marks the line between the richest and the poorest half of the population, has a net wealth of around 109.000 euros. However, the mean net wealth of households is roughly 231.000 euros and hence lies significantly above the median. This big difference is a first sign of an unequal distribution, since some rich households pull up the mean. For the poorest 10 per cent of households, assets just barely exceed liabilities; their nearly zero net wealth of about 1,000 euros is not even visible in the graph. The net wealth of the bottom 5 per cent is actually negative, that is, they are indebted. At the other end of the distribution, the bottom household of the top 10 per cent has a net wealth of around 506.000 euros (ECB 2013).

Figure 20. Net wealth of selected percentiles
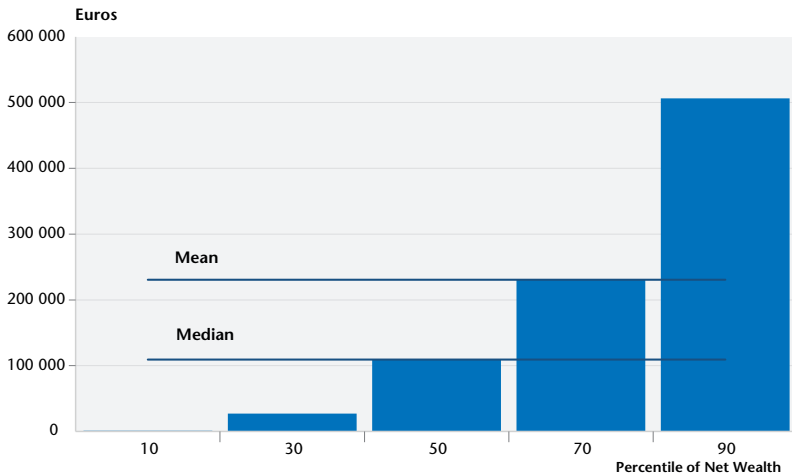

Source: ECB 2013, p. 75, authors' illustration.

Thanks to an ex-ante harmonisation of the survey design and the methods used, the data is comparable across the Eurozone. However, it is important to note that a comparison of absolute wealth levels, both of means but especially of medians, is not a very useful undertaking. Since the data covers only private

household wealth, demographic and differing institutional and political set-ups between countries are likely to lead to varying levels of private wealth. For instance, it is to be expected that countries with well-developed public housing or pension systems reduce the need for private households to accumulate assets. For example, far more than half the households in Spain, Portugal, Cyprus, or Slovakia own their primary residence, while the majority of households in Germany and Austria rent their home and consequently do not own any real estate.

Comparisons of absolute levels of private household wealth across Eurozone countries are thus not likely to yield meaningful results. In contrast, the data is well-suited to investigate the distribution of wealth between private households. Figure 21 ranks countries by their Gini-coefficient for net wealth of private households. Comparing countries across Europe, Austria has the highest wealth inequality, followed by Germany, Cyprus, and France, which also have a rather unequal distribution of wealth. Slovakia has the lowest Gini of 0.45 index points, but even there the distribution is skewed: the top 10 per cent own about a third of the wealth.

Another approach is to look at the contribution of different wealth categories to the total inequality of wealth. In Belgium, unequal distribution of financial assets is the main reason for wealth inequality. In countries such as Luxemburg, Greece, or Slovakia it is real estate. In Germany, Austria, France, or Portugal, the unequal distribution of business assets contributes the most to wealth inequality (Sierminska and Medgyesi 2013).

Figure 21. Gini-coefficients of net wealth of private households, 2010
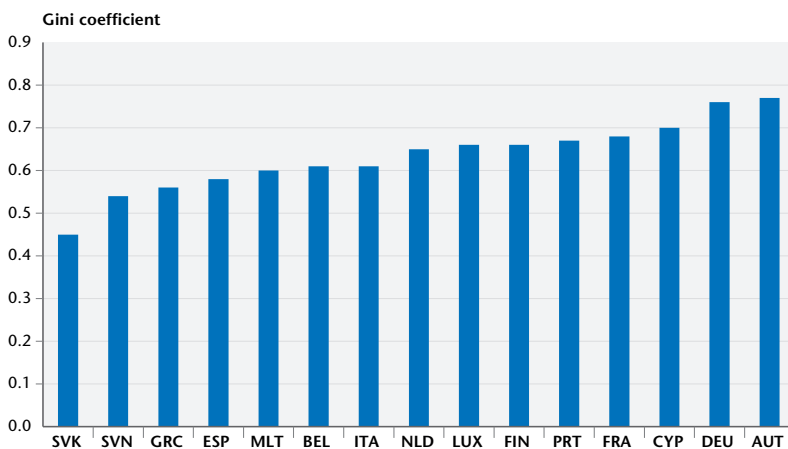
Source: Sierminska and Medgyesi 2013, p. 10.

An important aspect which needs to be considered in wealth surveys is the potential under-reporting of wealth. The question is how well surveys with voluntary participation—as well designed as they may be—can cover the actual wealth spectrum. For some countries, for example, administrative data is available from wealth and inheritance taxes. For these cases, the hope is that state authorities have consistently enforced the obligation to report and the full spectrum of trans-

ferred assets is recorded. In wealth surveys based on voluntary participation, researchers must be conscious of the fact that different positions in the distributions come with different probabilities to participate and reply. While experience shows that this is also true for the bottom of the distribution, household non-response is a much bigger problem at the top end. In addition, the probability of a rich household to be drawn in a sample of a few thousand is extremely low, which further exacerbates the underestimation of total wealth and of wealth inequality.

This weakness becomes tangible when comparing of HFCS data with information from the Forbes Rich List (Vermeulen, 2014). The richest household in the German part of the HFCS owns 76 million euros, while the "poorest" person of the 52 Germans on the Forbes list has a wealth of 818 million euros. The data for Austria shows an even more dramatic gap of 22 million (HFCS) and 1,560 million euros (Forbes). These examples show that the super-rich are not represented in the data, which inevitably leads to distorted results. One possibility to close this gap is to carefully estimate missing assets at the top end of the distribution. The starting point for such an estimate is the so-called Pareto distribution, which academic studies show describes the missing top of the wealth distribution very well.

Figure 22. Share of the richest 1% in the total net wealth of private households, 2010
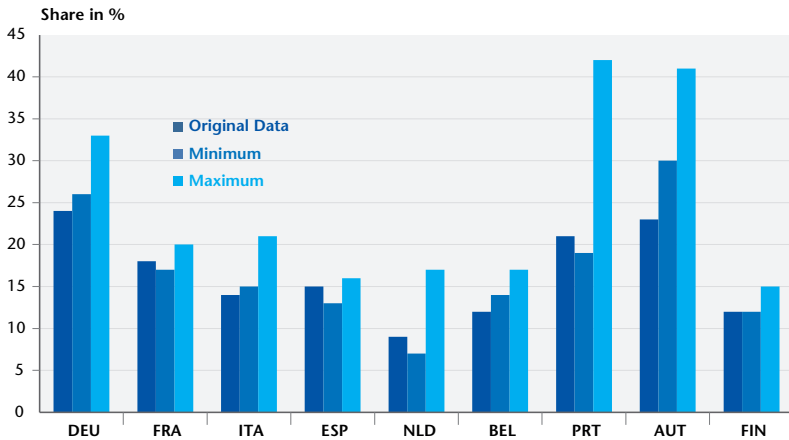
Source: Vermeulen 2014, p. 29.

Vermeulen (2014) has done such estimations for a number of Eurozone countries. These provide lower and upper bounds for the bias due to under-reporting of the largest fortunes, which are used to calculate corrected estimates (Figure 22). According to HFCS data, the richest per cent in Germany owns a share of 24 per cent of the total private wealth. After correcting for under-reporting, this share is between 26 and 33 per cent. For other countries, the correction shows that the concentration of wealth is probably significantly higher than indicated by the HFCS data, as well.

It needs to be emphasised that the HFCS was carefully prepared and implemented both in terms of content and design, while drawing on many years of experience of the US Survey of Consumer Finances (SCF). This included, for instance, a comprehensive collection of metadata beyond personal interviews as well as a thorough training of interviewers. Still, due to the difficulties in capturing the high wealth households described above, results based on the HFCS represent the lower limit of the actual concentration of wealth – but this lower level alone already points to a concerning level of inequality.

The high Gini-values up to 0.77 in figure 21 show that inequality of wealth is much higher than that of incomes. In all countries examined, the Gini-coefficients of household wealth are higher than those of household incomes. ECB calculations also provide evidence for this fact. The richest 10 per cent of households own more than 50 per cent of the total net wealth in the covered Eurozone countries. This concentration is much lower for household incomes, where the 10 per cent of households with the highest incomes earn about 31 per cent of the total income (ECB, 2013, p. 96).

As mentioned earlier, since the HFCS has only been conducted once so far, it is not possible to assess the development of concentration of wealth over time. However, in his book Capital in the Twenty-First Century, the French economist Thomas Piketty has presented data on the distribution of wealth in Europe. His calculations are based on long time series for France, Great Britain, Germany, and Sweden. Piketty shows that in Europe the share of wealth owned by the top 1 per cent has been growing slowly but steadily since the 1970s; he also warns that the concentration of wealth might further exacerbate in the future (Piketty, 2014).

The HFCS wealth survey shows that, so far, only little was known about wealth in the Eurozone. While the distribution of income from employment is well researched in many countries, until recently, researchers were rather in the dark when it came to wealth. The reason for this is that tax authorities record incomes, but the only source of information about wealth are surveys on a voluntary basis – with all their advantages and disadvantages. Given how willingness of rich households to participate in surveys as HFCS is lacking, one partial solution would be to make participation mandatory in future HFCS waves.

7. The fight against inequality and poverty

The analysis above shows an overall picture of a Europe that is not converging but diverging, and the main driver for income divergence is not divergence within countries but between countries. And while income is unequally distributed, but inequality in wealth is much larger.

The European labour market still suffers, with high levels of long-term unemployment and a large share of young people that are unable to find a job. There is a risk that the development will become structural, creating scars for a long time. Poverty and material deprivation is rising, but more in some countries than others. The divergence is therefore not only seen on a macroeconomic scale, but also the living standards of Europeans are diverging. Some might argue that the rising poverty and material deprivation are just driven by the cycle, but our analysis has shown that austerity and changes in social protection expenditure have a significant effect on severe material deprivation.

In the chapter above our main focus has been on income and wealth inequalities, inequalities on the labour marked, poverty and material deprivation. But there are many other kinds of inequalities—such as inequality in education, health, gender, race discrimination, crime exposure etc.—that are just as problematic.

Within a few years we could easily end up in a situation where large inequality increases have occurred right in front of our noses, knowing that it could have been prevented, if we had implemented decisive action. Knowledge is power, ignorance is defeat. To reverse the trend in poverty, inequality and the divergence between countries, we need to put the fight against poverty and inequality firmly on the agenda.

One of the main ideas behind the European Union was to enhance the convergence among member states. The more divided the countries are, the harder it is to create a common direction for the EU. Policy coordination, not least in the fiscal area, becomes more difficult. Inequality should be fought not only from a distributional perspective but also for the future of the European Union. A union, particularly one that shares the same currency, has to serve equality and cannot be maintained at the expense of rising inequality. The risk is a withdrawal on national level, ending in breaking up the euro.

Creating jobs through investment

European investment has fallen more than 400 billion euros since its 2007 peak, leaving Europe caught in an investment trap. Therefore, we urgently need to stimulate investment for the purpose of job creation both in the short run as well as in the long run. As shown above, poverty and material deprivation is closely related to economic growth, unemployment and especially long-term unemployment. It is therefore crucial that we manage to create more European jobs in order to avoid a structural worsening of the labour market, though hysteresis effects, with continuing divergence and poverty increase as a consequence.

The European commission has just presented an investment plan for Europe, the so-called Juncker-plan. The plan is a step in the right direction, but is likely to fail to deliver on its promises (see chapter 1 and 4). More still needs to be done in order to prevent more people from being long term unemployed ending in poverty and material deprivation. As outlined in chapters 1 and 4, there are still several channels within the EU fiscal framework that can increase investment and in this way boost growth and create jobs. Economic policy should address austerity and deflation by the usual tools but the diverging underlying dynamic requires much more. A coordinated wage policy would be an important counterweight (see chapter 5 of this report and iAGS 2014) and transition toward a low-carbon economy could be a way to reignite prosperity in Europe (chapter 4 of this report). Ultimately, public investment financed by money creation may be resorted to (a scheme is proposed in chapter 3 of this report).

Active labour marked policies and increased education level

Increasing expenditures and effort on active labour market programs will also reduce inequality and poverty. Passive labour market programs are traditionally unemployment insurance schemes, whereas active labour market programs are training activities and other reintegration policies targeted at the unemployed (as opposed to a general training or education subsidy). Active programs may

include education aiming at upgrading the skills of unemployed workers or employment programs intended to prevent skill losses during the period of unemployment. In other words, active labour market programs aim at securing the employability of the unemployed in order to avoid scarring effects of long-term unemployment.

As already stated above child poverty is especially concerning. Ensuring that parents are employed is therefore a crucial mechanism to reduce the risk of child poverty. Policies that improve the conditions for low income families with children will reduce child poverty. This could be seen in the form of higher labour partici-pation among parents, including improved parental leave arrangements, which makes it easier to return to work after maternity leave. Increasing the female participation rate is also likely to reduce the risk of poverty for children. By increasing the female participation we can increase employment and create more equal opportunities for men and women. One way to make it more likely for women to participate in the labour force is to develop the public childcare system.

By increasing the educational level for the weakest we can lift low-incomes and in this way reduce inequality. The supply of unskilled labour is reduced rela-tive to that of skilled labour. In this way it is possible to fight social inequality by getting weaker groups employed and supporting their bargaining power on the labour market. Increasing the education level will also benefit the large group of unskilled or low skilled young people in Europe. More young people should have at least an upper secondary education and more adults, especially those without training, should have better opportunities to upgrade their skills through adult and continuing education.

In chapter 1 we argued that the present European fiscal rules are putting pres-sure on expenditure such as investments in education and active labour market policies. These kind of social investments are investments that are changing the long-term because they are investments in the future of Europe. Downgrading social investments will therefore have long-lasting consequences for Europe (Palier *et al.*, 2011). One of the problems with the recently presented Junker-plan is that it does not rely on such investment, despite the fact that such social investments are clearly priorities in the Commission. Since the Junker-plan relies heavily on a leverage effect (or multiplier effect) from private investments, by construction it could not have included social investments. This underlines the limitation of these hybrid (public-private) plans.

Making Europe more equal by reforming the tax system

When it comes to poverty reduction and creating a more equal Europe, looking at how we tax people is also important. Reforming the tax system in Europe in order to make it fairer and more progressive, will not only have a direct effect, it can also finance investments such as education or active labour market policy, that will benefit lower-income groups.

Kindermann *et al.* (2014) finds in a very recent study on US data that increasing tax rates at the very top of the income distribution, for instance among the top one percent earners, can both reduce tax burdens for the rest of the population as well as increase social welfare, and reduce both income and wealth inequality. Because tax burdens are increased for the top one percent earners and decreased for the "bottom" 99 percent, the average consumption

will increase, and inequality will decrease compared to a situation with no tax change. Wealth inequality will also decrease. By taxing extraordinary high income at a high rate, the source of the wealth concentration is being taxed at a high rate, which will result in a significant decline in wealth inequality over time (Kindermann *et al.* 2014).

Reforming income taxation is not the only way to go; other tax sources should also be considered. An increase in property taxes should be considered. First of all property is immobile, meaning that it is not the target of tax evasion. Secondly the value of real estate is highly correlated with wealth, meaning that higher taxes on property, means higher taxes in the top of the distribution. In light of the dramatic inequality of wealth in Europe, an obvious demand is also to raise wealth-related taxes in coordination. Apart from fairness considerations, other aspects necessitating such a move are tight public budgets and the relatively high tax burden on labour. Wealth-related taxes are also considered a source of income for the funding of public services that has little or adverse impact on economic growth, especially if raised EU-wide at low rates. The EU should implement a common Financial Transaction Tax. Ten European countries have already agreed on implementing the tax from 2014, but other European countries should join the initiative.

Finally the effort to combat tax evasion and tax havens should be strengthened. The European Commission has estimated that European countries annually lose in the area of 1 trillion euros because of tax evasion EU-COM (2012). But tax avoidance is not only a problem related to money transferred out of the EU. This stresses that there is an urgent need for greater coordination of the European tax systems. A lot can be done in order to unify taxation rules, creating common legislation, a common tax base and creating transparency in the tax system. An important first step in this direction is an automatic exchange of information to combat tax evasion which is supported by the OECD (2014) and being implemented in the EU. The goal must now be the consistent implementation of the OECD agreement, which was signed by 51 states in October 2014, together with the abolition of banking secrecy, at least in the EU.

But unhealthy tax competition in the EU is already a reality, where corporate tax cuts in one country makes other countries follow, making it a 'race to the bottom'. The result is a negative spiral with no winners, as countries follow each other down, in an attempt to lure investments and businesses from each other. The OECD has denounced "harmful Tax Competition" since 1998. Tax practices that were defined as harmful were: "no or low effective tax rates"; "ring fencing of regimes" (preferential tax regimes are partly or fully insulated from the domestic markets to protect own economy); "lack of transparency"; "lack of effective exchange of information" (OECD, 1998). It is therefore important to build a political consensus on a higher degree of policy coordination for corporate taxation. This could for done by implementing an EU wide strong inventory of income, wealth and tax regimes (including advance tax ruling), with shared information among member states. Disseminating anonymized comprehensive information (like it has been seen in ECB's recent wealth survey) is useful in order to strengthen the public and scientific debate. Based on that, a framework proposition could be developed, where residents are taxed according to national law avoiding double taxation and double no taxation. Wealth in one country would be known to fiscal administration in the country of residence and taxed according

to prevailing fiscal rules. Multiple residency would not be allowed. Such a framework would provide full transferability of social rights as these would be given as a joint benefit of such common framework. Fiscal havens would be eradicated. Minimum taxation levels could be secured, and the same could apply to firm taxation. Another approach could be only to engage willing countries, in the enhanced cooperation procedure, in fiscal convergence. Residency would not be an issue and common law would apply. Harmful fiscal competition could be dealt between the core of common fiscal law countries and remaining countries.

One thing is for sure; the current challenges with the ongoing economic crisis, the unhealthy corporate tax competition and tax evasion are best solved by international cooperation, and the EU can play a central role in doing so.