Box I.3: **What survey data tell us about Inequality**

Advanced economies have registered a trend increase in inequality over recent decades, as documented prominently by T. Piketty's (2014) 'Capital in the Twenty-First Century'. The 2008-09 financial crisis and ensuing sovereign debt crisis have added to the resulting distributional concerns. While relevant from a point of view of social justice, inequality developments also have a number of possible effects on growth, as discussed, with a particular focus on short-term developments, in the EC Spring Forecast 2016 (Part I, chapter 1).

This box presents an indicator of developments in financial inequality among households based on consumer surveys. This indicator has the advantages of timely availability, long and complete time series and broad coverage of EU Member States and candidate countries.

After describing the construction of the indicator, the box embarks on a preliminary analysis of developments in selected Member States. [1]

In spite of its topicality, the analysis of inequality developments arguably (still) suffers from a scarcity of appropriate indicators which, on top, suffer from a number of shortcomings:

(i) they mostly focus on income inequality (after taxes and transfers), while (net) wealth inequality is arguably at least equally important to grasp societal differences in economic well-being [2] and seems to be more pronounced than income inequality; [3]

(ii) income and wealth surveys are conducted rather infrequently and irregularly; [4]

(iii) the history of most income/wealth studies is short, making it impossible to track inequality developments over longer periods;

(iv) given a lack of methodological harmonisation, cross-country comparisons have limited meaning;

(v) relatively high-income/wealthy respondents are prone to underreport their income/wealth, leading to downward-biased inequality indicators. [5]

This box describes an innovative, alternative way of getting an indication of inequality developments which could complement the existing indicators. [6] The idea is to extract information on inequality from the results of the Joint Harmonised EU Consumer Survey Programme, which collects every month qualitative assessments of some 40,000 consumers across Europe in respect of their personal finances, consumption plans, etc. The survey question particularly useful for the purpose is the following: "How has the financial situation of your household changed over the last 12 months?" The responses are summarised in a so-called balance, i.e. the share of replies indicating an improvement minus the share of those reporting a deterioration. The annual [7] inequality indicator is constructed as the difference between the balance statistics of the highest and the lowest income quartile reflecting the difference between "rich" and "poor" households. [8] As lower-income households show a generally more pessimistic reporting behaviour than richer households, irrespective of the question concerned, the indicator is adjusted for such differences. [9]

The resulting inequality indicator provides an indication of whether (i) inequality is increasing or decreasing (depending on which of the two balance series is larger) and (ii) the speed at which the two categories approach each other or drift apart (depending on the absolute magnitude of the difference between them).

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(1) The indicator is at this stage still experimental. Results should therefore be seen as preliminary, further analysis being required in particular to better understand country-specific developments.

(2) The ECB's Eurosystem Household Finance and Consumption Survey (HFCS) is the only (euro-area wide) wealth study with a single wave released so far. Own calculations on the basis of HFCS data show that households' wealth is 7-15 times larger than their annual income.

(3) See OECD (2015). *In it together – Why less inequality benefits all*. Paris: OECD.

(4) There is, e.g., a 5-year gap between the last wave of the European Community Household Panel and its successor, the European Union Survey on Income and Living Conditions.

(5) The ECB finds indications of such a phenomenon, when comparing its HFCS results with mean wealth levels per person, as derived from national accounts; see ECB (2013). 'The eurosystem household finance and consumption survey – results from the first wave'. *Statistics Paper Series No 2 / April 2013*.

(6) An earlier version was published by the EC (2016). 'What survey data tell us about inequality'. *European Business Cycle Indicators – 2nd Quarter 2016*.

(7) To distil meaningful, long-term tendencies, the difference is built on an annual basis. The annual balance series are derived from the originally monthly data by taking their average over the last three months of a year (i.e. the average of the values in October, November and December 2015 represent the value of the balance series in 2015).

(8) With income and wealth highly correlated, differences between responses of the highest/lowest income quartile can be interpreted, more broadly, as differences between the "rich" and the "poor"; see ECB (2013). 'The eurosystem household finance and consumption survey – results from the first wave'. *Statistics Paper Series No 2 / April 2013*.

(9) More precisely, a proxy of the 'genuine' differences in reporting habits of the rich and the poor is subtracted from the indicator. For each country, the proxy is the mean difference between "rich" and "poor" households' replies to the question "How has the general economic situation in the country changed over the past 12 months?". The rationale is that the general (macro-) economic situation is the same for all so that mean differences in the groups' answers are likely to reflect systematic differences in their optimism.

At the same time, the new indicator addresses many of the above-described shortcomings of existing inequality measures: (i) derived from a survey question about households' financial situation, the indicator does not only reflect changes in the level of income, but also encompasses changes in wealth. It is assumed that "financial wealth" is understood as a broad concept, including residential property; (ii) the indicator can be constructed for a comparatively long time-period (for some countries, going back to 1985) and has no gaps; (iii) trends are fully comparable across countries, since the underlying survey data are generated by the same, harmonised methodology; [10] (iv) since respondents to the survey indicate qualitative changes in their financial situation, underreporting of income/wealth developments is unlikely.

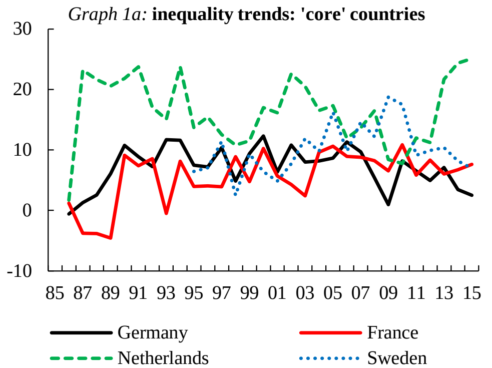
Given the space constraints of this box, the inequality indicators are presented for eight EU countries only. The countries were chosen with a view to the quality of their national survey series and so as to cover both 'core' (Germany, France, Netherlands, Sweden) and 'periphery' (Italy, Spain, Portugal, Ireland) Member States. [11]

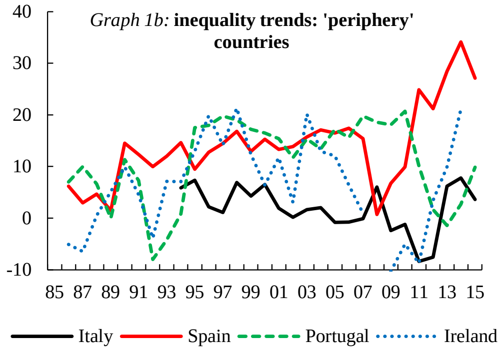
Inequality is increasing across Europe

Graphs 1a and 1b show a widespread increase in inequality across Member States (the indicators are mostly in positive territory). [12]

Among the 'core' countries, relatively high readings for the Netherlands (throughout the observation period) and Sweden (since about 2005) could surprise at first sight, given generally low inequality of incomes (post taxes and benefits) in these countries. They are, however, plausible considering that households take wealth into account when responding to the survey. [13]

Turning to the 'periphery' countries and focussing on developments from the mid 1990s onwards, the level of inequality growth tends to be higher than in most 'core' countries in Spain and Portugal. The Italian level, by contrast, appears particularly low, while Ireland is a (volatile) case in between.





The effect of the financial crisis…

To enable a thorough interpretation of the dynamics of the inequality indicators during the financial and sovereign debt crisis, Graph 2 plots the inequality indicators (black line), and also indicates how the underlying balance series reflecting households' assessments of their financial situation have changed. Red bars indicate that the financial situation has deteriorated, while green bars reflect an improvement. The bars in the upper half of the graph refer to the assessments made by households belonging to the 4th quartile (rich), the ones in the lower half to those made by households in the first quartile (poor).

Compared to the sovereign debt crisis (2010-13) and ensuing recovery, the effect of the financial crisis on inequality was limited. Overall, in five out of seven countries, 2008 combined a general deterioration in households' financial situation with a moderation of the inequality indicator. The deteriorating assessments of the financial situation across the board could be linked to the flood of worrying economic/financial news and the rise in unemployment having inclined all households to make more cautious assessments of their financial

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(10) The indicator measures changes in inequality, not their level; it does not allow to conclude that "Society in country A is less equal than in country B".

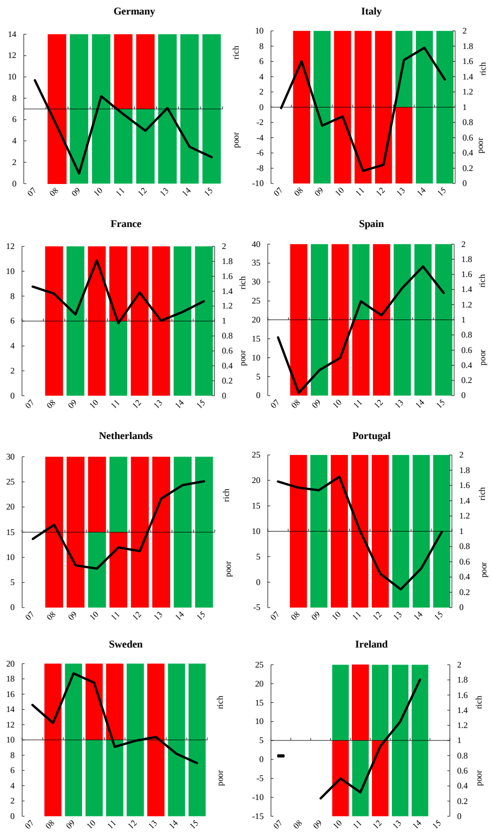
(11) Note that there are no Irish data-series for 2008/15.

(12) This is in line with available evidence from other sources. See, e.g., OECD (2015), which reports on wealth and income inequality, as well as T. Piketty (2014), who shows wealth concentration to have increased in France, Sweden, the UK and the US.

(13) Skopek et al. (2011) in 'Wealth inequality in Europe and the delusive egalitarianism of Scandinavian countries' find that Scandinavian welfare states are successful in reducing income inequalities by progressive taxation but are less successful in reducing wealth inequalities. The OECD (2015) points to high wealth inequality in the Netherlands.

situation. The reason why the assessments of the more affluent households deteriorated more strongly than those of the low-income households (inequality decreased) may relate to the massive losses of global stock markets in the aftermath of the Lehman Brothers collapse, which can be assumed to have mainly hit the richer layers of society.

Graph 2: **Inequality indicators and households' assessments of their financial situation**



The year 2009 seems to have improved the financial situation of European households (see green bars in six out of seven countries with available data). This could be linked to the implementation of large stimulus packages targeted to households at the EU level and in most Member States during that period. Contrary to 2008 though, there is no uniform picture across countries as to whether the general improvement is more pronounced among the wealthier or poorer households.

…the sovereign debt crisis…

The sovereign debt crisis apparently had sweeping and persistent (i.e. so far non-reversed) effects on all national inequality trajectories, as measured by the survey based indicators (exceptions are Germany/France). In most of the six countries showing a strong reaction (Netherlands, Italy, Spain, Ireland), the period 2010-13 brought, on balance, large increases in the national inequality indicators. That is quite intuitive, considering, i.a., the record levels of unemployment caused by the crisis which almost mechanically [14] drove up the inequality indicator. At the same time, plummeting house prices are likely to have taken their toll on the financial situation of home-owners.

…and the uneven recovery.

Another finding worth highlighting is the role that the recovery following the sovereign debt crisis has played in some countries, notably Portugal and Ireland, where the years 2014/15 coincided with substantial increases in the inequality indicator. In the remaining six countries, the recovery was socially more equitable, i.e., on average, the national inequality indicators in 2015 stand close to their 2013 levels. What is more, as the recovery got more entrenched (2015), the inequality indicators either dropped or remained (broadly) flat in all countries observed, except for Portugal.

Connection to the Autumn Forecast

Inequality affects growth in various ways. [15] For the near-term cyclical analysis, poorer households' lower savings rate plays a prominent role. Accordingly, the degree to which private consumption helps sustaining the current recovery critically hinges on the relative degree to which per-capita increases in GDP benefit the less- rather than high-earning households.

In view of the forecast, the timely availability of the proposed indicator is particularly valuable (data from income surveys that are comparable across countries are now generally available up to 2013/14 for OECD countries). As the indicator shows, inequality still increased in some Member States in 2014-15, but at a slower pace. Moreover, the financial situation of both the "poor" and the "rich" has improved. In that sense, the last finding of the previous section, notably a rather equitable distribution of the effects of the 2015 recovery, arguably increases the chances of sustained private consumption in the short-term.

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(14) When people get unemployed, they are likely to (i) move to a lower income group, driving up the share of unemployed in the lowest quartile and (ii) report a worsened financial situation. Rising unemployment thus tends to increase the share of respondents reporting deteriorating personal finances in the lowest income quartile, driving up the inequality indicator.

(15) See, e.g., F. Cingano (2014). 'Trends in Income Inequality and its Impact on Economic Growth', *OECD Social, Employment and Migration Working Papers, No. 163*.