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Inequality amid income stagnation:  
Italy over the last quarter of a century

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# INEQUALITY AMID INCOME STAGNATION: ITALY OVER THE LAST QUARTER OF A CENTURY

by Andrea Brandolini\*, Romina Gambacorta\* and Alfonso Rosolia\*

## Abstract

The paper analyses the evolution of inequality in Italy from 1989 to 2014, focusing on three business-cycle phases: the 1992 currency crisis, the moderate growth from 1993 to 2007, and the double-dip recession from 2008 to 2013. Data from the national accounts and the Bank of Italy's Survey on Household Income and Wealth are used. Results show that income inequality, as measured by the Gini coefficient, rose sharply during the recession of the early 1990s but much less during the recent double-dip recession, though the share of people at risk of poverty rose similarly during the two crises. The stability of (synthetic) distributive inequality measures is explained by the fact that the reduction in income during the double-dip recession hit the whole population. Despite this apparent stability, two changes stand out: the widening gap between the young and the elderly and the fact that the deterioration in living conditions was borne wholly by households whose primary earner was foreign born.

**JEL Classification:** D31, E24.

**Keywords:** inequality, household income distribution.

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## 1. Introduction<sup>1</sup>

For Italian households the last quarter of a century is unprecedented in post-war history. Reflecting a dramatic slowdown of the country's economy, households' real incomes virtually ceased to grow, jeopardising the standards of living achieved (Ciocca 2007; Brandolini and Vecchi 2013). The currency crisis that forced the Italian lira, and the British pound, to leave the European Exchange Rate Mechanism in September 1992 stands as the symbolic watershed between a long catching-up phase and a new period marked by the uncertainty about long-term growth prospects. Until 1992, output and incomes had grown steadily, if at a declining pace, for over forty years. Between 1950 and 1992, per capita GDP quintupled in real terms, rising by an average 4 per cent per year. The currency crisis led to a short and relatively small contraction (-0.9 per cent between 1992 and 1993) but gave way to a period of subdued economic growth. From 1993 to 2007, real output per capita went up by 1.5 per cent per year, a rate slower than before but also than the rates recorded in most other advanced economies. This slowdown sparked a debate about Italy's economic decline (Toniolo 2013; Crafts and Magnani 2013) – until the double recession due to the global financial crisis in 2008-09 and the sovereign debt crisis in 2011-13 wiped out the modest gains made since the mid-1990s.<sup>2</sup> Households' incomes fared even worse than GDP, sliding back to the values of the end of the 1980s. Italy is the only major advanced country which, in the last two decades, suffered a fall in real household incomes per capita.<sup>3</sup>

The concern for widening inequalities and a shrinking middle class, which is common to many rich countries, must be seen in Italy within the peculiar, and worrying, context of a prolonged stagnation of households' real incomes. This consideration brings us to adopt a

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<sup>1</sup> We are indebted to Riccardo De Bonis, Giulia Lucarelli, Brian Nolan and Gianni Toniolo for very useful remarks on an earlier version of this paper. We also thank for comments participants at the book-project workshop "Inequality and Inclusive Growth" (Nuffield College, Oxford, 10-11 November 2016) and at the conference to celebrate Istat's 90th Anniversary, "La società italiana e le grandi crisi economiche 1929-2016" (Sapienza University, Rome, 25-26 November 2016). The views expressed herein are solely ours; in particular, they do not necessarily reflect those of the Bank of Italy or the Eurosystem. Forthcoming in *Inequality and Inclusive Growth in Rich Countries: Shared Challenges and Contrasting Fortunes*, edited by Brian Nolan, Oxford University Press, 2018.

<sup>2</sup> While the first recession was mostly driven by external factors originating in the world trade collapse in 2008, the second downturn was mainly caused by internal factors connected with a worsening of financing conditions and the deteriorating situation of the public finances (Caivano, Rodano and Siviero 2011; Busetti and Cova 2013).

<sup>3</sup> Between 1995 and 2015, per capita gross disposable income of the household sector (including non-profit institutions serving households), deflated by the price index of the final consumption expenditure, fell by 6 per cent in Italy, while it rose by 19 per cent in Germany, 23 per cent in France, 36 per cent in the United Kingdom, and 40 per cent or more in Australia, Canada, Sweden, and the United States. In Japan real incomes grew by just 3 per cent, but only in Greece did they drop by more than in Italy by almost 8 per cent. The historical data on GDP per capita are drawn from Baffigi (2013), Tab\_03 in the excel file; the data for the period 1995-2015 are drawn from Eurostat (2017) and OECD (2017a).

“macroeconomic perspective” in our analysis of the evolution of the Italian income distribution. We relate distributive indicators to the three business-cycle phases just highlighted: the currency crisis of the early 1990s, the subsequent moderate growth, and the double recession.<sup>4</sup> We start by sketching the dynamics of aggregate household incomes based on our own reconstruction of time series from National Accounts (Section 2). After describing data sources and definitions (Section 3), we move to discuss how income distribution changed between 1989 and 2014 (Section 4), paying special attention to the evolution of income-based social stratification (Section 5). We then review the impact on income distribution of demographic forces, social security reforms, and labour-market developments (Section 6) and compare distributive changes between the two economic downturns considered here (Section 7). We draw the main conclusions in Section 8.

## **2. The aggregate dynamics of household incomes**

Until the early 1990s, real gross household disposable income (GHDI) rose steadily, in line with GDP and household consumption expenditure (Figure 1). After the currency crisis, GHDI virtually stopped growing, while consumption kept rising in line with GDP. This decoupling of consumption and GHDI dynamics was accompanied by a significant contraction of the propensity to save, from (then) high levels by international standards. It partly reflected lower convenience to save due to falling interest rates and easier access to borrowing, but it was also facilitated by the gains accrued on capital account on households’ wealth holdings, especially its housing component. In 2007, before the global financial crisis, per capita real GHDI barely surpassed the levels of the early 1990s, while per capita real consumption had grown by almost 20 per cent. The double recession had severe repercussions: per capita real GHDI fell by nearly 14 percentage points between 2007 and 2014 and in 2016 was still at the levels of the late 1980s. This time consumption followed suit, despite a further compression of the savings rate.<sup>5</sup>

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<sup>4</sup> Palmisano and Peragine (2017) adopt a similar periodisation in their analysis of the dynamics of income distribution in Italy.

<sup>5</sup> While variations in asset prices had previously generated capital gains that had offset in part the poor dynamics of incomes, during the double recession they led to considerable capital losses that could account for a reduction in annual consumption by up to half a percentage point (Brandolini 2014, 238). See Guiso, Paiella and Visco (2006) and Bassanetti and Zollino (2010) for estimates of the impact of changes in asset prices on the consumption behaviour of Italian households.

The double recession took a heavy toll on households' incomes, but a largely predictable one in the face of the huge output collapse. As seen, however, the malaise of Italian households begins earlier, going back to the early 1990s. Indeed, the 1992 currency crisis is the watershed for GHDI dynamics even more than it is for GDP. While intrinsically linked with a deep political and institutional crisis, its origins can be traced back to the acute imbalances of Italy's public finances, characterised by net borrowing in excess of 10 per cent and a debt as large as the annual GDP. This fuelled fears that Italy could not meet the stringent commitments taken with the signing of the Treaty of Maastricht on 7 February 1992 without relying on high inflation or traumatic fiscal adjustment measures (Signorini and Visco 1997; Rossi 2007).

The fiscal consolidation that followed is the first factor behind the widening gap between GDP and GHDI. As summarised by Balassone et al. (2002, 786): "The looming financial crisis forced the government to take unprecedented corrective actions, which for 1992 included one-off levies on bank and post office deposits and on real estate. The 1993 budget represented a turning point in Italian fiscal policy. In order to curb the deficit expected for 1993, expenditure cuts and revenue increases amounting to nearly 6 per cent of GDP were implemented. Structural measures were also adopted to attenuate the expansionary trends in the major expenditure items". According to Miniaci and Weber (1999), these corrective measures represented a major negative permanent shock, affecting particularly the younger cohorts, which can account for large part of the downfall in consumption and output.

Fiscal consolidation continued in subsequent years in order to comply with the criteria of the Maastricht Treaty, although with varying intensity. It also led to a fall in bond yields which compressed the expenditure on debt-servicing, thus shifting resources from households, whose financial portfolios were mostly comprised of such assets, to the general government sector (Figure 2).

The second factor affecting the difference in GDP and GHDI trends can be found in the labour-market reforms implemented since the mid-1990s to curb nominal price dynamics and stimulate competitiveness (Brandolini et al. 2007; Sestito and Viviano 2018).<sup>6</sup> These reforms helped to sustain employment growth, especially its female component, and curtail

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<sup>6</sup> The different dynamics of real GDP and real GHDI depend on the behaviour of their respective deflators in small part, and only in certain sub-periods. Over the entire period, changes in terms of trade, which drive the difference between the two deflators, do not matter. See the difference between the two GDP lines in Figure 8.2.

unemployment rates, while keeping wages in check amidst a gradually shrinking working-age population.

In 1961 there were 7 individuals aged 15-64 for each person 65 or older, by 2016 the figure had more than halved. The potential labour shortage stemming from population ageing has been offset by the upsurge of migration inflows, the secular increase in female participation, and the sudden stabilisation, after a protracted fall, of male participation (Visco 2008). The number of resident foreigners, on average much younger than the natives, steadily grew from 1 per cent of the total resident population in 1993 to over 8 per cent in 2016, turning Italy from an emigration to an immigration country (Bonifazi et al. 2009; Cingano, Giorgi and Rosolia 2013). According to the labour force survey, 2.4 million foreign persons were employed in 2016, or 10.5 per cent of total employment. The employment rate of adult women (25-64 years) rose from about 35 per cent in the mid-1970s to 60 per cent in 2015; that of men in the same age group fell from nearly 90 per cent to about 80 per cent in the mid-1990s and hovered around that value ever since (Figure 3). The availability of foreign work for domestic services facilitated the employment of native women (Barone and Mocetti 2011),<sup>7</sup> though the latter's labour market participation remains among the lowest in Europe.

While the share of employed persons in the total population kept falling until the mid-1990s but then recovered quickly, real compensation per employee slowed down markedly. Real earnings increased by a mere 2 per cent from 1992 to 2016, after having risen by over 2 per cent annually between 1970 and 1992. Overall, this implied a fall in the share of incomes from labour (including self-employment) in total value-added, or a shift of resources from households to the corporate sector.<sup>8</sup>

In brief, the contribution of labour incomes to GHDI has gradually weakened over time, mostly as a result of the slowing down in real earnings (Figure 4). Property incomes, which include imputed rents from owner-occupied housing, have instead provided a more stable contribution to GHDI until the mid-1990s, when nominal interest rates stabilised on

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<sup>7</sup> Del Boca and Pasqua (2003) estimate that the rise in wives' work did not lead to higher income inequality between 1977 and 1998, particularly in the Northern regions where female employment is high in low-middle income groups. Somewhat differently, Fiorio (2011) finds that the change in female participation had mixed effects on the inequality of equivalent incomes in the period 1977-1991, whereas it made distribution more unequal in the period 1991-2004.

<sup>8</sup> Even if we consider here only the indistinct total income from labour, in fact the dynamics of wages and salaries and of self-employment incomes did not coincide. See for instance Brandolini, D'Amuri and Faiella (2013) for evidence based on tax returns for the period 2003-09.

lower levels.<sup>9</sup> Overall, net transfers (transfers minus taxes on income and wealth) played a modest role in supporting incomes, even during recessions, with the partial exception of the global financial crisis of 2008-09 (Brandolini 2014).

### **3. Data sources and definitions for distributive analysis**

In order to evaluate the distributive changes that have accompanied the aggregate income dynamics, we use the microdata from the Historical Archive of the Bank of Italy's Survey of Household Income and Wealth (SHIW-HA, Version 9.1). The SHIW has been carried out by the Bank of Italy since the mid-1960s and has been the main source of information on incomes at household and individual levels for many past decades (Bank of Italy 2016; Baffigi, Cannari and D'Alessio 2016). It collects information on after-tax incomes earned by all household members, although returns on financial assets such as interests and dividends have been available on a consistent basis only since 1989.<sup>10</sup> This forces us to restrict our analysis to the period 1989-2014, as we are interested in a comprehensive definition of income. Household income comprises the imputed rent of owner-occupied residential properties, including the household's main residence. We assume equal intra-household division of income and approximate individual living standards by assigning each individual the household income equivalised by the OECD-modified equivalence scale.

The SHIW income definition is broadly comparable to that used for GHDI in National Accounts, but there is less than complete alignment between the two sources, owing to methodological differences and the typical survey underestimation due to non response and underreporting biases (Baffigi, Cannari and D'Alessio 2016). Without carrying out any adjustments to increase comparability, the SHIW income estimates are on average about two thirds of the National Accounts aggregates. The patterns differ at the beginning of the period, but are qualitatively similar since 1998 (Figure 5, panel A). Over the whole period, per capita real income rises slightly according to the SHIW whereas it declines according to National

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<sup>9</sup> Interests accruing to households and disposable income are defined here as in National Accounts, hence gross of the purchasing power losses suffered on nominal wealth because of consumer inflation. Inflation, as measured by the household consumption expenditure deflator in National Accounts, soared to double-digit figures during the 1970s and was not kept in check until the early 1990s. Adopting the broader Simons-Hicks definition of income (Simons 1938; Hicks 1946), the amount required to maintain the real value of nominal non-indexed wealth should be subtracted from disposable income. As a result, both income growth and saving rates would be lower in years of high inflation, but the overall developments would be broadly unchanged, with only a milder fall in saving rates in the early 1990s.

<sup>10</sup> Specifically, the survey collects detailed information on the stock of financial assets and returns are subsequently estimated. See Gambacorta and Neri (2015) for details.

Accounts. Mean equivalent income per individual better tracks per capita GHDI than per capita mean income.

In the identification of socio-demographic groups, we focus on households' rather than individuals' characteristics. The socio-demographic characteristics of the head of household, taken to be the highest income earner, are applied to all members in a household. This choice is motivated by the assumption that it is the top earner who defines the socio-economic status of the household as well as the household's position in the life cycle. Thus the distribution of equivalent incomes by age class must be understood as referring to the age of the household's top earner, not to the actual age of each individual. The young group therefore comprises all independent households headed by a young person, whereas young people still living with their parents are mostly counted in older age classes. Results would differ by making a different choice (e.g. Brandolini and D'Alessio 2011).

#### **4. The household income distribution from 1989 to 2014**

It is common practice to concentrate on the distribution of equivalent household income among individuals because it better captures the distribution of individual well-being by accounting for age differences in needs and economies of scales in consumption (e.g. in heating). However, if family formation is seen as a choice which is reflected in the well-being of family members, "... it might be argued that the benefits of having children are such that in a country where birth control is widespread no allowance should be made for the cost of children" (Atkinson 1983, 51). Leaving aside this normative consideration, the distribution of (unadjusted) household income among households is of interest because it reveals how the purchasing power is spread among the different decision units, the households, regardless of their size and composition. While the *equivalent household income* is an analytical construct, the *unadjusted household income* is directly observable by people and may be closer to their perception of the distribution of economic resources.

During the period 1989-2014, the two distributions evolved in different ways. Both household and equivalent average incomes fell by similar amounts in the early 1990s recession (respectively, by -6.5 and -5.2 per cent between 1989 and 1995), but by 2006 the former had barely recovered the 1989 level while the latter was nearly 11 percentage points higher. In the next eight years, both dropped by 14-15 per cent, mostly during the sovereign debt crisis (Figure 5, panel A).

To single out the factors underlying this widening gap, let  $y_i$ ,  $f(s_i)$  and  $w_i$  be income, the number of equivalent adults according to equivalence scale  $f$ , and sample weight of household  $i$  of size  $s$ , respectively, and let  $r_i = s_i/f(s_i)$  be the ratio of household size to number of equivalent adults. By using the definition of covariance, the ratio between the mean equivalent income across individuals  $y^e$  and the mean (unadjusted) household income across households  $y^f$  equals  $y^e/y^f = (r^*/s^*)[1 + \rho(y_i, r_i)(\sigma_y/y^f)(\sigma_r/r^*)]$ , where  $r^*$  and  $s^*$  are the averages of  $r_i$  and  $s_i$ , and  $\rho$  and  $\sigma$  denote the cross-sectional correlation and standard deviation. Demographic patterns, such as shrinking household size and ageing, show up in the first term, the ratio  $r^*/s^*$ . Abstracting from household heterogeneity, this term is negatively correlated with household size and age. The number of equivalent adults falls less than household size, the more so if the fall is due to a lower number of children, who are assigned a smaller weight. The term capturing the correlation between household income and the ratio of size to equivalent adults may reflect long-term trends in labour market. For example, holding household structure constant, increased labour-market participation of adults other than the breadwinner implies a higher correlation and increased income dispersion, thus leading to a widening gap between equivalent and household incomes. Panel B of Figure 5 shows how the household structure  $r^*/n^*$  and the heterogeneity and correlation factor  $[1 + \rho(y_i, r_i)(\sigma_y/y^f)(\sigma_r/r^*)]$  contributed to the widening gap between equivalent and household incomes. While both factors contributed, the former was by far the major driver.

Household incomes are more unequally distributed among households than equivalent incomes are among individuals, reflecting the positive correlation between household size and income.<sup>11</sup> Their respective Gini coefficients follow similar patterns: they both increased sharply during the currency crisis, but they did not change much in the following two decades, including the years of the double recession (Figure 6).<sup>12</sup> If anything, the index for household incomes showed a descending trend since mid-1990s. In 2014 the Gini coefficient for equivalent incomes was at the same level as in 1993, but 3.4 percentage points more than in 1989 (Table 1). These tendencies are confirmed by examination of the whole equivalent income distribution (Table 2).

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<sup>11</sup> In his analysis of the equalising role of the family in Italy, Albertini (2008) finds that changes in household forms had no clear-cut effects on income inequality trends from 1991 to 2000.

<sup>12</sup> The SHIW Gini coefficients are about 5 percentage points higher than the correspondent values estimated on the Statistics on Income and Living Conditions (SILC), but their time patterns are strikingly similar: between 2006 and 2012, the Gini coefficient for equivalent incomes went up by 0.9 percentage points in the SHIW vis-à-vis 0.7 points in the SILC; in the next two years, they fell by 0.7 and 0.6 points, respectively (Istat 2017b).

To illustrate the changes in the distribution of equivalent incomes during the three distinct macroeconomic phases discussed earlier, in Figure 7 we display the difference in the cumulative distribution functions (CDF) between the end and the beginning of selected periods. We pool pairs of contiguous waves to smooth out variability and raise the precision of estimated CDFs. The overall change from 1989-91 to 2012-14 (thick solid line) is decomposed into the changes in the three sub-periods 1989-91 to 1993-95 (currency crisis of the early 1990s, long-dashed line), 1993-95 to 2004-06 (modest expansion, dashed line), and 2004-06 to 2012-14 (double recession, dotted line). The total increase in inequality is the result of a sizeable shift of population towards the bottom of the distribution that largely took place below the initial median. The decomposition by sub-periods shows that the overall change in the shape of the distribution occurred in the early 1990s while distributional changes in the other two periods basically offset each other.

To sum up, during the period 1989-2014 the fall of mean equivalent income per individual was less pronounced than that of mean household income per household, essentially as a consequence of a steady reduction in household size. This suggests a less rosy picture if no adjustment is made for economies of scale in consumption. The inequality pattern is, however, rather similar for both measures: a sharp increase in the early 1990s was followed by oscillations of the Gini coefficient without no clear trend, though the total rise in inequality is somewhat lower for household incomes than for equivalent incomes.

## **5. Macroeconomic phases and income-based social stratification**

These patterns can also be examined by taking an income-based definition of social class.<sup>13</sup> We divide the population into four classes: low-income class (with equivalent income below 60 per cent of the median), lower-middle class (60-120 per cent of the median), upper-middle class (120-300 per cent of the median), and the rich (above 300 per cent of the median).

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<sup>13</sup> Relying on income alone misses many critical aspects of the concept of social class (Atkinson and Brandolini 2013). In particular, the income-based notion deviates from the standard approach in sociology which defines social class on the basis of individuals' position in the labour market. Several studies decompose income inequality trends in Italy by looking at social classes identified from the occupational status of the head of household. They find that the modest variation of summary inequality statistics in Italy since the mid-1990s hides a significant horizontal redistribution, which before the double recession favoured the households of the self-employed relative to those of production workers (Boeri and Brandolini 2004; Quintano, Castellano and Regoli 2009; Albertini 2013).

The shares in population and equivalent income for each class are reported in Table 3, while Figure 8 displays these shares for the first three sub-groups. During the early 1990s recession, the lower-middle class shrank by more than 5 percentage points and its share of equivalent income fell by almost the same amount. The low-income population rose correspondingly by about 5 percentage points although its income share barely increased. The upper-middle class was little affected both in its size and its income share. The rich rose from nearly 2 to 3 per cent of the population but their income share soared from more than 6 to over 10 per cent. Limited variations characterise the next ten years of modest growth. In the double recession, changes were much less marked than in the earlier recession, and mostly affected the middle classes. The population share of the low-income class rose by little more than 1 percentage point, while the lower-middle class lost over 2 percentage points; the latter's income share also declined. Conversely, the upper-middle class increased in size and share of income. The proportion of the rich remained stable, but their income share dropped.

The evidence about the rich suggests that changes at the top of the income distribution were important in the early 1990s, but less so later on. Apparently, the income share of the rich was eroded during the double recession. This is consistent with the drop between 2007 and 2009 in the income share of the top 1 per cent of adult individuals estimated on tax returns. All in all, the steady rise in top-income shares from 1983 to 2007 is not at odds with the pattern suggested by the SHIW data, but there are significant differences in sub-periods.<sup>14</sup>

The main distributional change took place during the early 1990s recession, and mostly took the form of a shift from the lower-middle class to the low-income class. After that, the population and income shares of different classes hardly changed, despite macroeconomic developments.<sup>15</sup> In particular, since the mid-1990s there is no evidence of a gradually shrinking middle class (identified by using income alone), a recurrent concern in the recent public debate in Italy.

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<sup>14</sup> There are many reasons why estimates on top incomes are not comparable with the SHIW estimates, including the fact that they refer to pre-tax revenues liable to the progressive personal income tax, hence excluding interest and other incomes on financial assets. For top income estimates see Alvaredo and Pisano (2010) and updates available at [wid.world](http://wid.world).

<sup>15</sup> The same conclusion for the shorter period 1987-1998 was reached by Pittau and Zelli (2004) by conducting a non-parametric analysis of the distribution of real incomes in Italy. See also Pittau and Zelli (2006).

## 6. Demographic forces and labour market developments

The summary measures of inequality and class stratification discussed so far fail to reveal some deep changes that reshaped the distribution of income among Italians.<sup>16</sup> Two sets of forces drove the transformation: on one side, population ageing interacted with a never-ending process of reform of social security; on the other side, an employment growth dominated by the spreading of flexible contracts combined with stagnating real wages. These forces brought about a reallocation of resources along age/cohort lines. Changes in the distribution of wealth and its returns possibly played a role too, but the assessment of this channel is limited by the lower quality of available data.

Between the late 1980s and mid-2010s, ageing and a wave of pension reforms added about 3.5 million pensioners to the population. The currency crisis of the early 1990s started a process of reform of social security which aimed at curbing expenditure growth and correcting labour-market and redistributive distortions generated by the existing system (Franco 2002). Before the new National Defined Contribution scheme was finally approved in 1995, many chose early retirement to take advantage of the more generous existing rules: between 1991 and 1995 the average effective age of retirement fell from 61.9 to 59.6 years for men and from 59.1 to 57.4 for women.<sup>17</sup> The effective retirement age went up afterwards, to above 61 years in 2014 for both sexes, but very slowly, as a consequence of the extremely gradual phasing-in of the reforms. At the same time, the newly retired persons benefitted from better treatments than earlier cohorts, as “the increase in the age and contributory records at retirement for old-age and seniority pensions increased the average amount paid to new pensioners” (Franco, Marino and Tommasino 2008, 152).<sup>18</sup>

Over the same period, concerted (consumer) wage moderation and a wave of labour-market reforms, sometimes complemented by contractual agreements, contributed to raise the number of labour-income earners (including the self-employed) by 2.7 million persons. However, in the wake of the augmented flexibility of the labour market, fixed-term contracts accounted for a substantial part of employment growth, and a progressive decrease in real

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<sup>16</sup> See Pittau and Zelli (2004; 2006) and Massari, Pittau and Zelli (2009) for non-parametric analyses that try to detect movements in the Italian income distribution that might lie behind apparently stable summary inequality statistics.

<sup>17</sup> The average effective age of retirement is calculated by OECD (2017b) as a weighted average of the net withdrawals from the labour market at different ages over a 5-year period for workers initially aged 40 and over, abstracting from compositional effects in the age structure of the population.

<sup>18</sup> Fiorio (2011) estimates that pension income had an equalising effect on the equivalent income distribution from 1991 to 2004.

earnings at first employment, not compensated by a steeper career profile, contributed to wage moderation (Lilla and Staffolani 2009; Rosolia and Torrini 2016; Naticchioni, Raitano and Vittori 2016). Earnings instability rose and the weakest segments of the labour force like new entrants and low educated workers suffered especially (Rosolia 2010; Ballarino et al. 2014; Cappellari and Leonardi 2016).<sup>19</sup> This led to a worsening of the situation of young people in the labour market that “was due less to shrinking occupational chances ... than to declining earning levels and increasing uncertainty about career prospects” (Giorgi et al. 2011, 144). These developments helped to close the gap between pensioners’ and workers’ households: equivalent income grew from about 15,000 euros (at 2014 prices) in 1989 to just over 20,000 euros in 2008 for the former group, while it remained on average around 20,000 euros throughout the period for the latter group (Figure 9). The fall during the double recession was more pronounced for workers’ than pensioners’ households.

This implied a substantial change in the composition of each fifth of the equivalent income distribution (Figure 10). The number of pensioners in the top two fifths increased by 3.3 million persons, while that of labour-income earners by only 300,000; on the contrary, in the two bottom fifths an increase in the number of labour-income earners by 1.5 million persons was accompanied by a decline in the number of pensioners by 350,000 persons.

Figure 11 shows the evolution of main household income components. The average equivalent values are computed for each income source by including households which do not report any income from that source, so that their sum equals the average total equivalent income. Labour income dropped in the early 1990s in each fifth; wage moderation and rising work precariousness delayed its recovery until the early 2000s. Both the initial drop and the later recovery were weaker in higher fifths than in lower ones. Social transfers, mostly constituted by old-age pensions, developed differently across the distribution. Since the early 2000s social transfers expanded only in the top 40 per cent, nearly tripling throughout the period in the top fifth. In the bottom fifth, pension income basically stagnated until the mid-2000s, when it fell abruptly at the onset of the global financial crisis.

Not surprisingly, from late 1980s to early 2010s labour-income developments were the main factor compressing equivalent income growth across the whole distribution, with stronger drags exerted in the bottom and top fifths (Figure 12). As pensioners gradually

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<sup>19</sup> Studies based on the joint analysis of expenditure and income distribution find that the variance of permanent shocks has not changed significantly, while the variance of transitory income shocks has increased, largely because of the rise in earnings instability (Rosati 2003; Jappelli and Pistaferri 2010).

climbed up the equivalent income distribution, pensions restrained income growth in the bottom fifth but increasingly boosted it in the higher fifths. Property incomes provided a larger contribution to income growth for the middle 60 per cent; property income of Italian households reflect to a large extent developments in the real-estate market through imputed rents on owner-occupied housing, the largest wealth component for most Italian households.

## **7. Inequality in downturns: a comparison of two recessions**

The macroeconomic perspective adopted in this paper brought us to single out two economic downturns: the currency crisis of the early 1990s and the double recession of 2008-14. The former episode was the first major recession since World War II but was relatively mild in terms of output loss. It was however accompanied by a large fall in employment lasting till 1995 (1 million people). From 1989-91 to 1993-95, mean household equivalent income declined by 3 per cent and income inequality sharply increased. By fixing the poverty line at 9,000 euros (at 2014 prices), or approximately half of the mean equivalent income in 1989-91, the proportion of the poor rose from 13 per cent in 1989-91 to 19 per cent in 1993-95. Poverty growth was largely driven by people in the lower-middle class moving down the income ladder, as seen above, whereas those in the top 20 per cent of the distribution did not suffer losses in real incomes, and the richest ones even improved their condition. This can be seen by comparing the Pen's Parades between 1989-91 and 1993-95 (Figure 13).<sup>20</sup>

The double recession was different. It saw a far bigger and longer macroeconomic contraction than the previous downturn, despite the similar size of net employment losses (1 million persons from 2008 to 2013). While mean household equivalent income plunged in line with output, by 12 per cent between 2004-06 and 2012-14, this time inequality did not change much. Yet, the headcount poverty ratio soared again from 14 to 19 per cent (still keeping the poverty line fixed in real terms at 9,000 euros at 2014 prices). What distinguishes this second downturn from the earlier one is that there was a general impoverishment of the Italian population, as revealed by the whole downward shift of Pen's Parade from 2004-06 to 2012-14. This time the increasing hardship at the bottom of the distribution followed the overall income decline more than the rise in polarisation between the rich and the poor.

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<sup>20</sup> The Pen's Parade plots real income values on the vertical axis against the proportion of population arranged in ascending order of income on the horizontal axis (Pen 1971).

To shed further lights on these two economic downturns, we investigate the changes in the relative equivalent income positions of selected socio-demographic groups, identified from educational achievement, age, employment status, geographical area of residence, and country of birth, where all characteristics refer to the head of household. More precisely, to describe how the income distribution of every group varied relative to the overall median during each downturn, we use a visual tool derived as follows. Let  $m_t$  be the overall median real equivalent income at time  $t$ , and  $q_t^{dc}$  the  $d$ -th decile of the distribution of real equivalent income *within* socio-demographic group  $c$  at time  $t$ . The ratios  $p_t^{dc}=(q_t^{dc}/m_t)$  indicate the position of group  $c$ 's distribution relative to the overall distribution, as summarised by its median value, and  $\Delta^{dc}=(p_t^{dc}-p_s^{dc})$  says by how much this relative position changed between time  $s$  and  $t$ . For example, consider people living in households whose head has at least a high-school diploma (HS). In 1989-91, the overall median real equivalent income was 16,250 euros; the 3rd decile of the distribution for these educated households was about 17,100 euros, 5.2 per cent higher than the overall median, hence  $p_{1989-91}^{3,HS}=(17,100/16,250)=1.052$ . In 2012-14 the overall median dropped to 15,850 euros, but the 3rd decile of the high-school headed households fell to 14,960 euros, yielding  $p_{2012-14}^{3,HS}=(14,960/15,850)=0.944$ , with a drop in the ratio by around 11 percentage points. For a given group, the changes in these decile-to-median ratios can be plotted against their initial value. Points in the north-east quadrant indicate that the group-specific deciles were above the overall median to start with and, over the period, moved farther away from the overall median. On the contrary, points in the south-west quadrant indicate that the group-deciles were below the overall median at the beginning of the period and fell further below it over time; points in the two other quadrants indicate a convergence towards the median during the period. Visually, an upward (downward) sloping sequence of points means that the group-specific distribution became more (less) unequal over time, whereas a flat sequence suggests that the relative positions did not change; the position of the curve in the space informs instead on the position of the group relative to the overall median.

Figure 14 focuses on the period from 1989-91 to 1993-95 covering the currency crisis. During that period inequality increased within each socio-demographic group under consideration. Among low-educated households, this happened because the bottom half of the distribution lost ground, both relative to the overall median and relative to the upper end of the distribution, whose position relative to the overall median did not change significantly. On the contrary, three quarters of high-educated households had already equivalent incomes

above the overall median in 1989-91, but moved further away from it, the more so the higher the decile. At the end of the 1980s more than 60 per cent of retirees' households had an equivalent income below the overall median; by 1993-95, those between the 3rd and 6th deciles had partly closed the gap, and those in the upper deciles had moved even farther. The distribution of equivalent incomes among workers' households spread out around the median very much in line with the overall median. Among young households, the bottom four deciles fell back, while the top three deciles moved relatively upward among old households. Income distribution became more unequal both within the Centre-North and the South. The comparison by country of birth (Italy vs. abroad) is not significant because of the small sample size of the foreign population, and it is reported only for the sake of completeness. The generalised increase in within-group inequality went along with an opening up of differences along education levels, age groups, professional status, and geographical area of residence.

Figure 15 considers the period 2004-6 to 2012-14, which was marked by the double recession. Within-group inequality increased only among retirees' households and, more markedly, among old households. At the same time, the latter households improved with respect to the overall median at all deciles: the 2nd and 3rd deciles increased, relative to the overall median, by 10 percentage points; higher deciles improved even more. By contrast, the relative position of young households worsened uniformly at all deciles, which fell by between 10 and 20 percentage points with respect to the overall median, with no strong evidence of major increases of inequality within this age group. Inequality rose in the South, while in the Centre-North people at both ends of the distribution lost ground as the middle classes kept their positions. The income gap between the Centre-North and the South did not widen; if anything it slightly declined (see also Palmisano and Peragine 2017). Income differences narrowed among foreign households, but they bore the brunt of the downturn as their distribution parted from that of native households.<sup>21</sup>

To sum up, the increase in inequality was pervasive, both within and between socio-demographic lines, during the early 1990s recession. On the contrary, within-group inequality increased only among old households and, to a much lesser extent, households living in the South during the double recession. One striking feature of this downturn is the widening age

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<sup>21</sup> Bonifazi and Marini (2014) find that male foreign workers performed worse than native workers in the labour market during the double recession. This was largely due to individual characteristics that make them more vulnerable to the crisis.

divide. Even the early 1990s recession hit young households relatively more than old households, but the latter's median equivalent incomes were then well below those of the former. There is, however, a second salient feature: the concentration of income losses among the immigrant (resident) population. While the age divide has received considerable attention, the suffering of households of foreign-born heads has gone largely unnoticed.

## **8. Conclusions**

The currency crisis of 1992 is a watershed in Italy's economic development. It marks the start of a phase of weak economic performance and uncertain growth prospects, driven by the difficulty of the Italian productive system to modernise in the face of deepening European unification, growing integration of global markets, and spreading of new technologies. The need for an adjustment has overlapped with the task, not yet accomplished, of consolidating public finances. It would be misleading to investigate the changes in household incomes and their distribution in the last quarter of a century in isolation from this complex macroeconomic context.

Our analysis based on data from the National Accounts and the Bank of Italy's SHIW ascertained few facts. First, income inequality, as measured by the Gini coefficient, brusquely increased during the early 1990s recession but has not changed much since then, neither in the subsequent moderate expansion nor in the double recession. Thus, the main change in distribution in the last three decades occurred during the currency crisis, and mostly took the form of a shift from the lower-middle class to the low-income class. Except for this episode, there is no indication that the middle class, defined in terms of income, shrunk. Top incomes seem to have played a minor role in driving inequality changes, although this may follow from a relatively poorer coverage of financial property incomes as well as of the upper end of the distribution.

Second, the post-1993 apparent stasis of summary indices of distribution, including measures of income-defined social stratification, should not deflect our attention from the fact that significant changes were experienced by socio-demographic groups. This emerges neatly by comparing the two recessions. During the 1992 currency crisis the inequality increase was pervasive, within and between socio-demographic groups. During the double recession, inequality rose among the elderly but not much within other groups. As to between-groups differences, two changes stand out: the widening gap between the young and

the elderly; the fact that the worsening in living conditions was borne wholly by households of foreign-born heads.

Third, the previous conclusions relate to the *relative position* of people along the income distribution. There is a need to account for the *level of real incomes*, the more so when their aggregate dynamics languish. In particular, patterns differed between the early 1990s recession and the recent double recession. While “pseudo-absolute” poverty (i.e. estimated with respect to a threshold fixed in real terms) increased by the same amount in both episodes, this stemmed mainly from rising inequality in the former but a general impoverishment in the latter. Thus, during the double recession the middle-income class suffered a loss in purchasing power, but not in size.

The economic debate in advanced economies is increasingly concerned with widening inequalities and a disappearing middle class. Italy is no exception. However, the general perception about these phenomena in Italy appears to be at odds with the observed virtual stability of (synthetic) distributive measures – a point already made more than a decade ago by Boeri and Brandolini (2004). This dissonance likely hinges on the long-lasting poor dynamics of incomes. Stagnation is even more evident when incomes are measured by unadjusted-per-household values, which are directly observable, unlike the abstract equivalent incomes per individual. Moreover, the more pronounced impoverishment of workers versus retirees, of young cohorts relative to old ones might have further fostered the sentiment of a regression of new generations’ future prospects.<sup>22</sup>

The analysis in this paper reminds us the importance of focusing on the working of the productive system and the labour market to address inequalities in Italy. Creating the conditions for more and better-paid jobs is the difficult task for policymakers. The weakness of the Italian social safety net is well known as is its limited effectiveness in public redistribution for reducing market-income inequality (e.g. Immervoll et al. 2006). Amending the flaws of the tax-and-benefit system is important to achieve “inclusive growth”, but improving the household living conditions requires, first and foremost, restoring growth.

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<sup>22</sup> For instance, Simonazzi and Barbieri (2016, 380) observe that “... middle-class discontent is certainly related to the increased inequality and loss of absolute income ..., but it has equally to do with the perceived reduced opportunities for younger generations and a decreasing intergenerational social mobility”. Using the SHIW data, Berloffia and Villa (2010) estimate that, between 1989 and 2004, the equivalent incomes of households whose heads were born in the 1930s and 1940s increased by about 8 per cent over those of the preceding cohorts, while younger households lost about 5 per cent on average.

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## Appendix: tables and figures

Table 1: Distributive measures for equivalent and household incomes (per cent and euros at 2014 prices)

|      | Household Income |        |                |        |                | Equivalent income |        |                |        |                |
|------|------------------|--------|----------------|--------|----------------|-------------------|--------|----------------|--------|----------------|
|      | Gini coeff.      | Mean   | First quartile | Median | Third quartile | Gini coeff.       | Mean   | First quartile | Median | Third quartile |
| 1989 | 33.4             | 35,900 | 19,900         | 30,100 | 45,500         | 29.5              | 18,800 | 11,500         | 16,200 | 23,000         |
| 1991 | 32.5             | 35,400 | 19,700         | 30,300 | 46,100         | 28.8              | 18,500 | 11,300         | 16,300 | 23,000         |
| 1993 | 36.6             | 34,500 | 17,700         | 27,900 | 44,900         | 33.2              | 18,200 | 10,300         | 15,700 | 22,700         |
| 1995 | 36.6             | 33,600 | 17,200         | 27,500 | 43,200         | 33.5              | 17,800 | 10,200         | 15,300 | 22,200         |
| 1998 | 37.5             | 34,900 | 17,500         | 28,400 | 44,300         | 34.3              | 19,000 | 10,800         | 16,400 | 23,100         |
| 2000 | 36.2             | 34,700 | 17,900         | 28,500 | 44,400         | 33.0              | 19,200 | 11,100         | 16,700 | 23,600         |
| 2002 | 35.7             | 34,700 | 18,000         | 28,700 | 44,100         | 32.3              | 19,400 | 11,200         | 17,000 | 23,800         |
| 2004 | 35.4             | 35,200 | 18,900         | 28,400 | 44,000         | 33.1              | 20,000 | 11,300         | 17,300 | 24,500         |
| 2006 | 34.8             | 36,100 | 19,400         | 29,700 | 44,700         | 32.1              | 20,800 | 12,200         | 18,000 | 25,600         |
| 2008 | 35.3             | 34,700 | 18,500         | 28,100 | 43,600         | 32.6              | 20,300 | 11,400         | 17,700 | 25,000         |
| 2010 | 35.0             | 34,900 | 18,700         | 28,800 | 44,000         | 32.7              | 20,400 | 11,700         | 17,800 | 25,300         |
| 2012 | 35.7             | 30,600 | 16,300         | 24,800 | 38,900         | 33.1              | 18,200 | 10,400         | 15,700 | 22,700         |
| 2014 | 35.0             | 30,600 | 16,700         | 25,100 | 39,400         | 32.9              | 17,900 | 10,100         | 16,000 | 22,700         |

Source: Authors' elaborations on data from the Bank of Italy, SHIW-HA (Version 9.1).

Table 2: Equivalent income shares across equivalent income tenths (per cent)

|      | First tenth | Second tenth | Third tenth | Fourth tenth | Fifth tenth | Sixth tenth | Seventh tenth | Eighth tenth | Ninth tenth | Tenth tenth |
|------|-------------|--------------|-------------|--------------|-------------|-------------|---------------|--------------|-------------|-------------|
| 1989 | 3.5         | 5.1          | 6.1         | 7.0          | 8.1         | 9.3         | 10.7          | 12.3         | 14.8        | 23.1        |
| 1991 | 3.4         | 5.1          | 6.2         | 7.2          | 8.3         | 9.5         | 10.8          | 12.5         | 14.8        | 22.2        |
| 1993 | 2.5         | 4.5          | 5.6         | 6.8          | 8.0         | 9.3         | 10.8          | 12.5         | 15.3        | 24.7        |
| 1995 | 2.4         | 4.4          | 5.7         | 6.8          | 8.0         | 9.3         | 10.7          | 12.5         | 15.1        | 25.1        |
| 1998 | 2.1         | 4.4          | 5.7         | 6.9          | 8.0         | 9.2         | 10.6          | 12.2         | 14.8        | 26.1        |
| 2000 | 2.4         | 4.6          | 5.7         | 6.9          | 8.1         | 9.3         | 10.7          | 12.4         | 15.0        | 24.9        |
| 2002 | 2.6         | 4.6          | 5.8         | 6.9          | 8.1         | 9.4         | 10.6          | 12.3         | 15.0        | 24.7        |
| 2004 | 2.7         | 4.5          | 5.6         | 6.8          | 8.0         | 9.2         | 10.6          | 12.2         | 14.8        | 25.6        |
| 2006 | 2.9         | 4.6          | 5.8         | 7.0          | 8.1         | 9.2         | 10.6          | 12.3         | 14.8        | 24.7        |
| 2008 | 2.6         | 4.6          | 5.7         | 6.9          | 8.1         | 9.3         | 10.7          | 12.4         | 15.0        | 24.7        |
| 2010 | 2.5         | 4.5          | 5.7         | 6.9          | 8.1         | 9.4         | 10.9          | 12.5         | 15.1        | 24.4        |
| 2012 | 2.4         | 4.5          | 5.7         | 6.8          | 8.0         | 9.4         | 10.8          | 12.6         | 15.2        | 24.6        |
| 2014 | 2.1         | 4.4          | 5.7         | 6.9          | 8.2         | 9.6         | 11.1          | 12.7         | 15.2        | 24.1        |

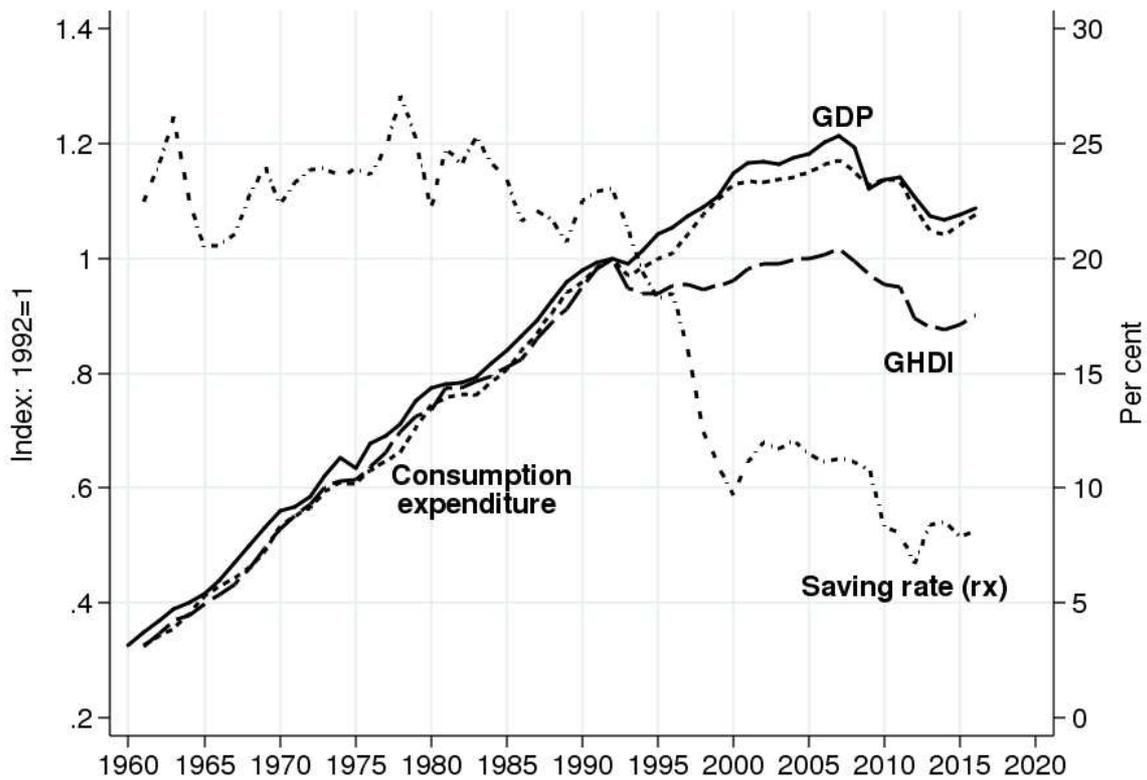
Source: Authors' elaborations on data from the Bank of Italy, SHIW-HA (Version 9.1).

Table 3: Shares in population and total equivalent income of social classes (per cent)

|         | Population share                           |  |   |                                 | Equivalent income share                    |  |   |                                 |          |  |
|---------|--|--|---|---------------------------------|--|--|---|---------------------------------|----------|--|
|         | Low income class (less than 60% of median) | Lower middle class (60-120% of median) | Upper middle class (120-300% of median) | The rich (above 300% of median) | Low income class (less than 60% of median) | Lower middle class (60-120% of median) | Upper middle class (120-300% of median) | The rich (above 300% of median) | The rich |  |
| 1989-91 | 16.1                                       | 47.1                                   | 35.1                                    | 1.8                             | 6.4  | 36.2                                   | 51.1                                    | 6.4                             |          |  |
| 1993-95 | 20.7                                       | 41.6                                   | 34.7                                    | 2.9                             | 7.2  | 31.7                                   | 50.6                                    | 10.5                            |          |  |
| 2004-06 | 20.1                                       | 43.6                                   | 33.8                                    | 2.5                             | 7.4  | 33.6                                   | 48.8                                    | 10.3                            |          |  |
| 2012-14 | 21.4                                       | 41.2                                   | 35.1                                    | 2.4                             | 7.4  | 32.1                                   | 51.6                                    | 8.9                             |          |  |

Source: Authors' elaborations on data from Bank of Italy, SHIW-HA (Version 9.1).

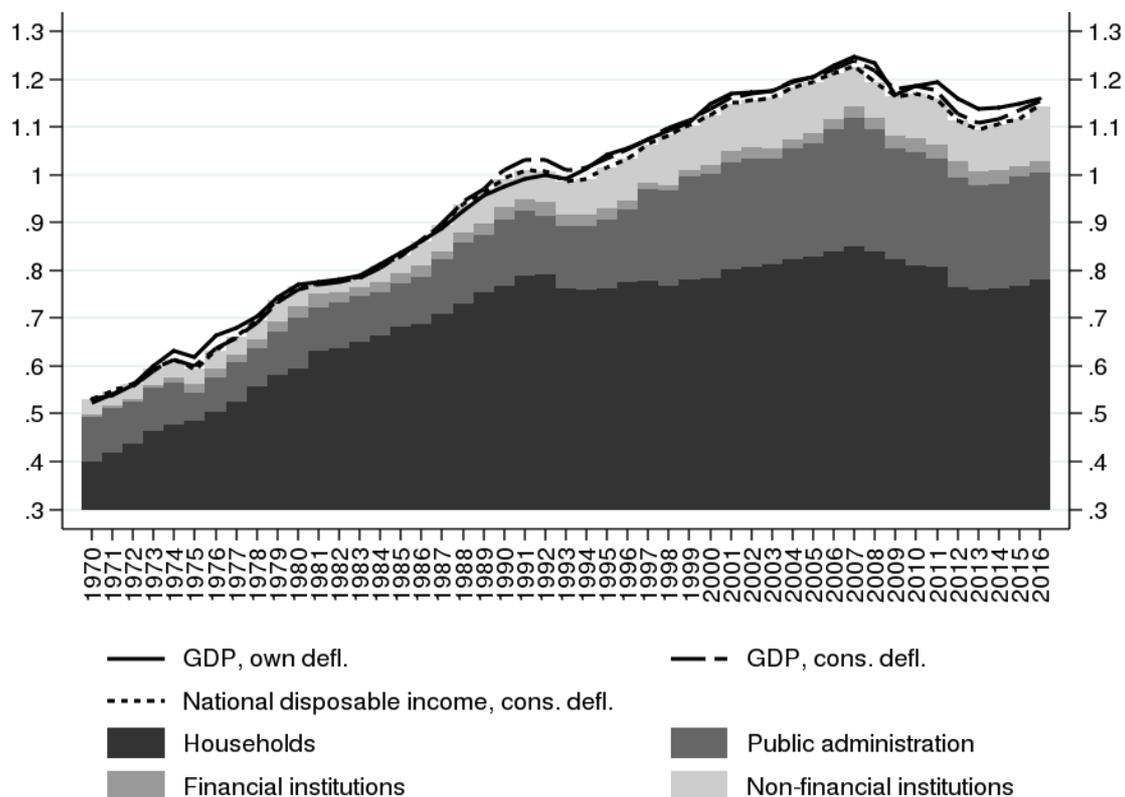
Figure 1: GDP and household finances, 1960-2016 (indices and per cent)



Source: Authors' elaborations on data from Istat, National Accounts (1973, 1991, 1997, 2017a) and Pagliano and Rossi (1992).

Note: GDP, GHDI and consumption expenditure are indices (1992=1) of per capita values at constant prices (left-hand axis); the saving rate is the ratio of total savings to GHDI (right-hand axis). Households include Non-Profit Institutions Serving Households. The time series are adjusted for breaks in National Accounts (1970, 1980, 1990, 1995).

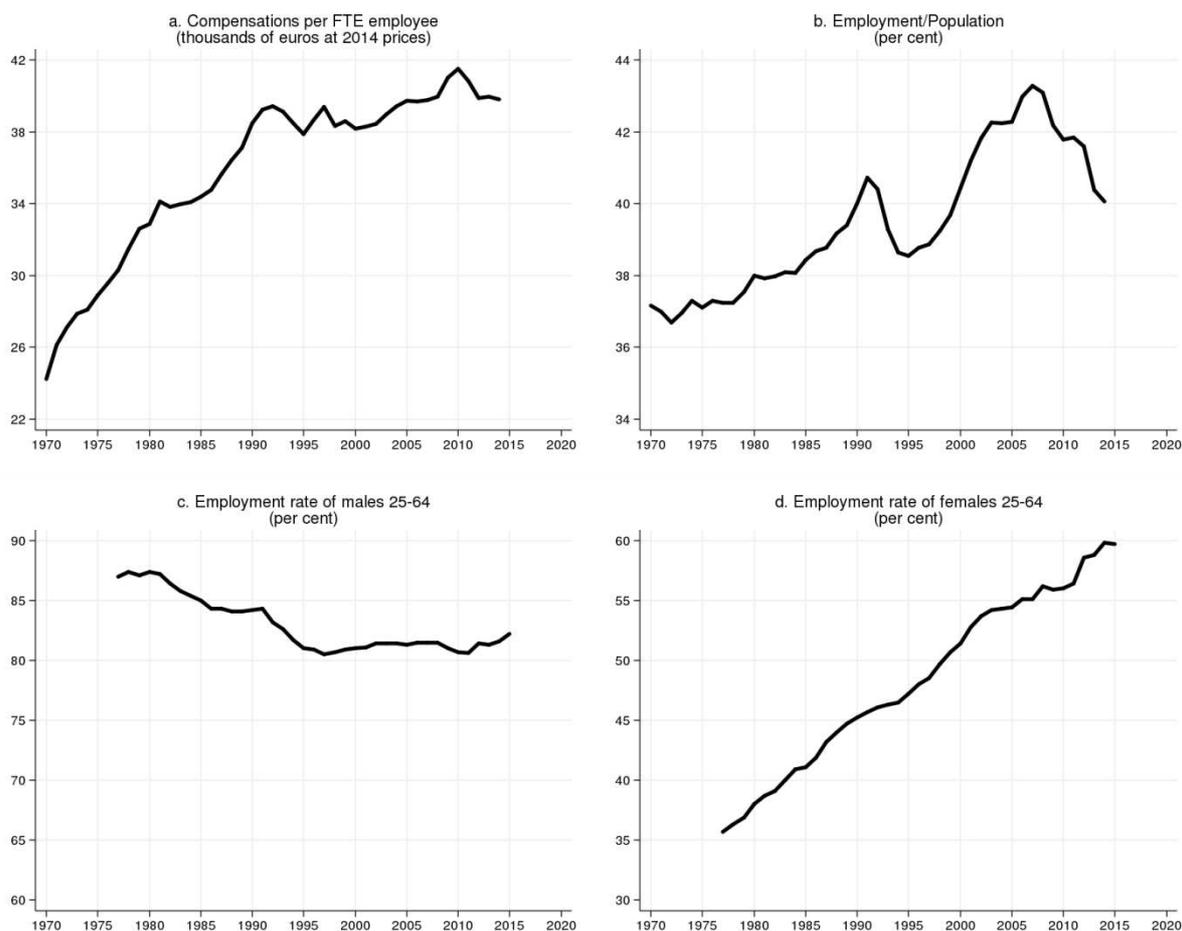
Figure 2: GDP, national disposable income and its distribution across institutional sectors (indices: GDP own deflator in 1992=1)



Source: Authors' elaborations on data from Istat, National Accounts (1991, 1997, 2017a) and Pagliano and Rossi (1992).

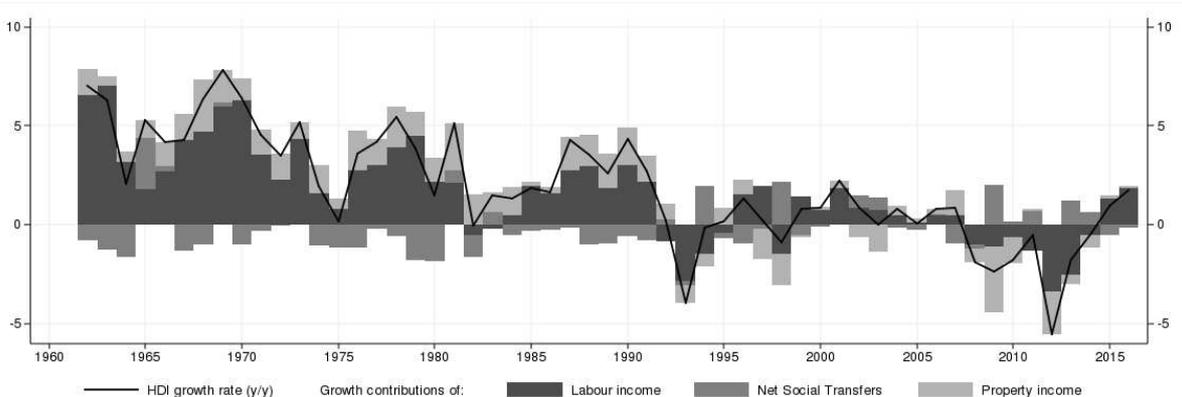
Note: All variables are divided by real GDP (own deflator) in 1992: thus, the series for real National disposable income (consumption deflator) shows how this aggregate evolved between 1970 and 2016, after being rescaled by the value of real GDP in 1992. The series for the disposable income of Households, Public administration, Financial institutions, and Non-financial institutions are divided by the consumption deflator and add up to the real National disposable income. Households include Non-Profit Institutions Serving Households. The time series are adjusted for breaks in National Accounts (1970, 1980, 1990, 1995).

Figure 3: Main labour market developments, 1970-2016 (thousands of euros at 2014 prices and per cent)



Source: Authors' elaborations on data from Istat, National Accounts and Labour Force Surveys.

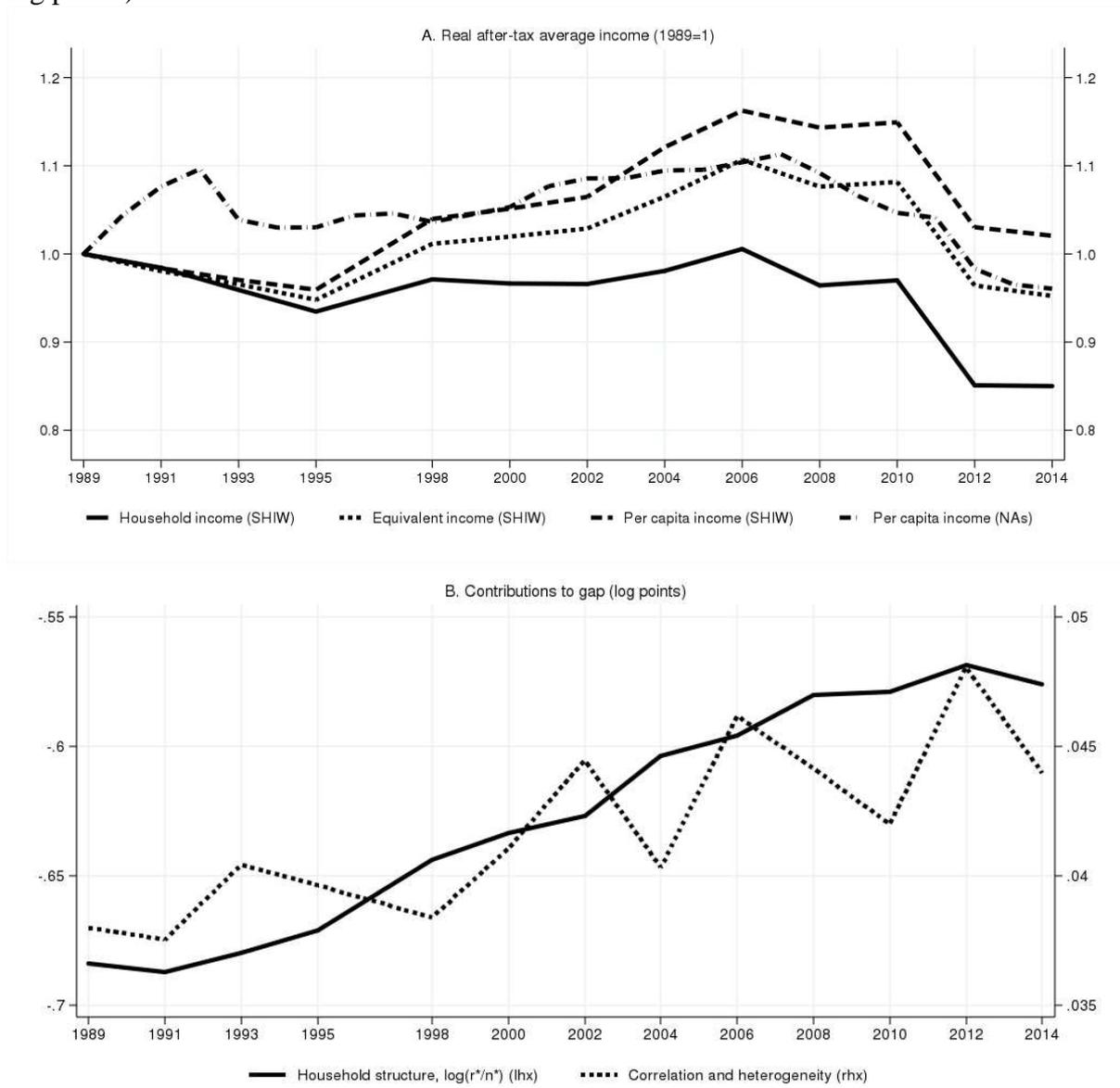
Figure 4: Decomposition of the growth of per capita real GHDI, 1961-2016 (percentage points)



Source: Authors' elaborations on data from Istat, National Accounts (1973, 1991, 1997, 2017a) and Pagliano and Rossi (1992).

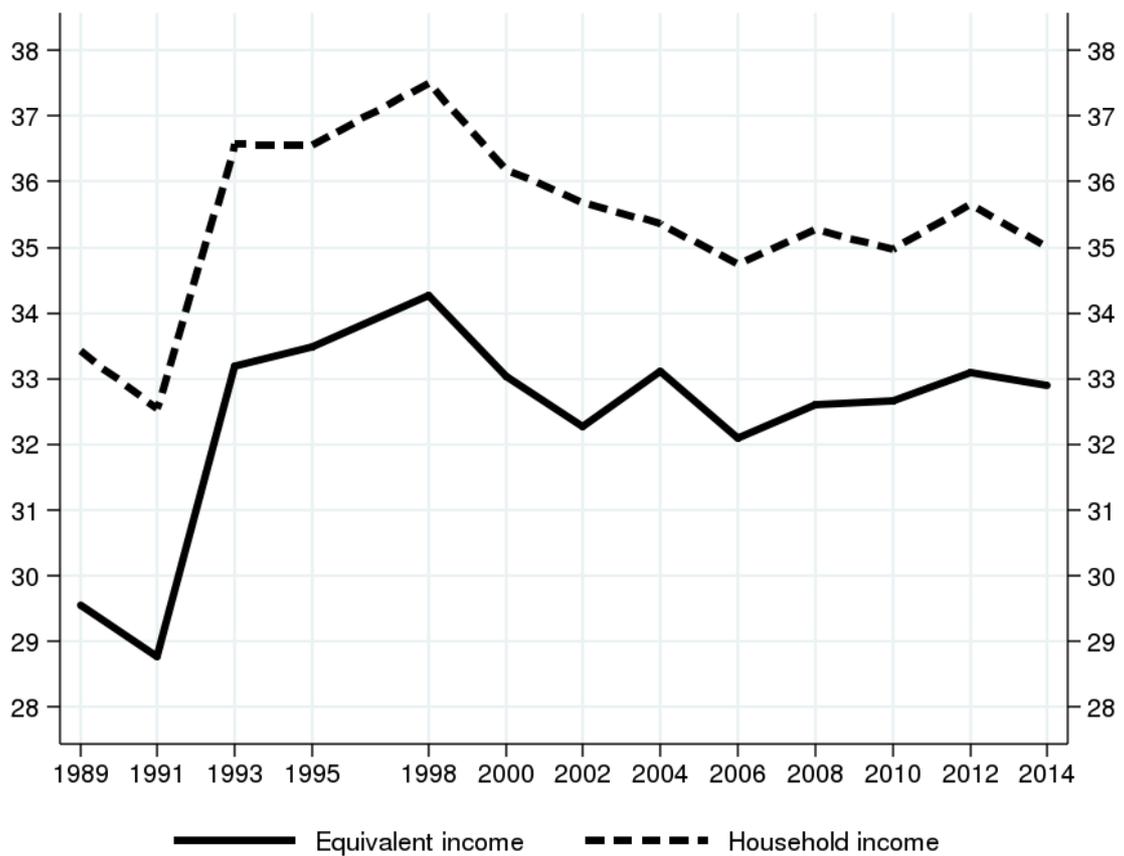
Note: Households include Non-Profit Institutions Serving Households. The time series are adjusted for breaks in National Accounts (1970, 1980, 1990, 1995).

Figure 5: Average household incomes in the SHIW and the National Accounts (indices and log points)



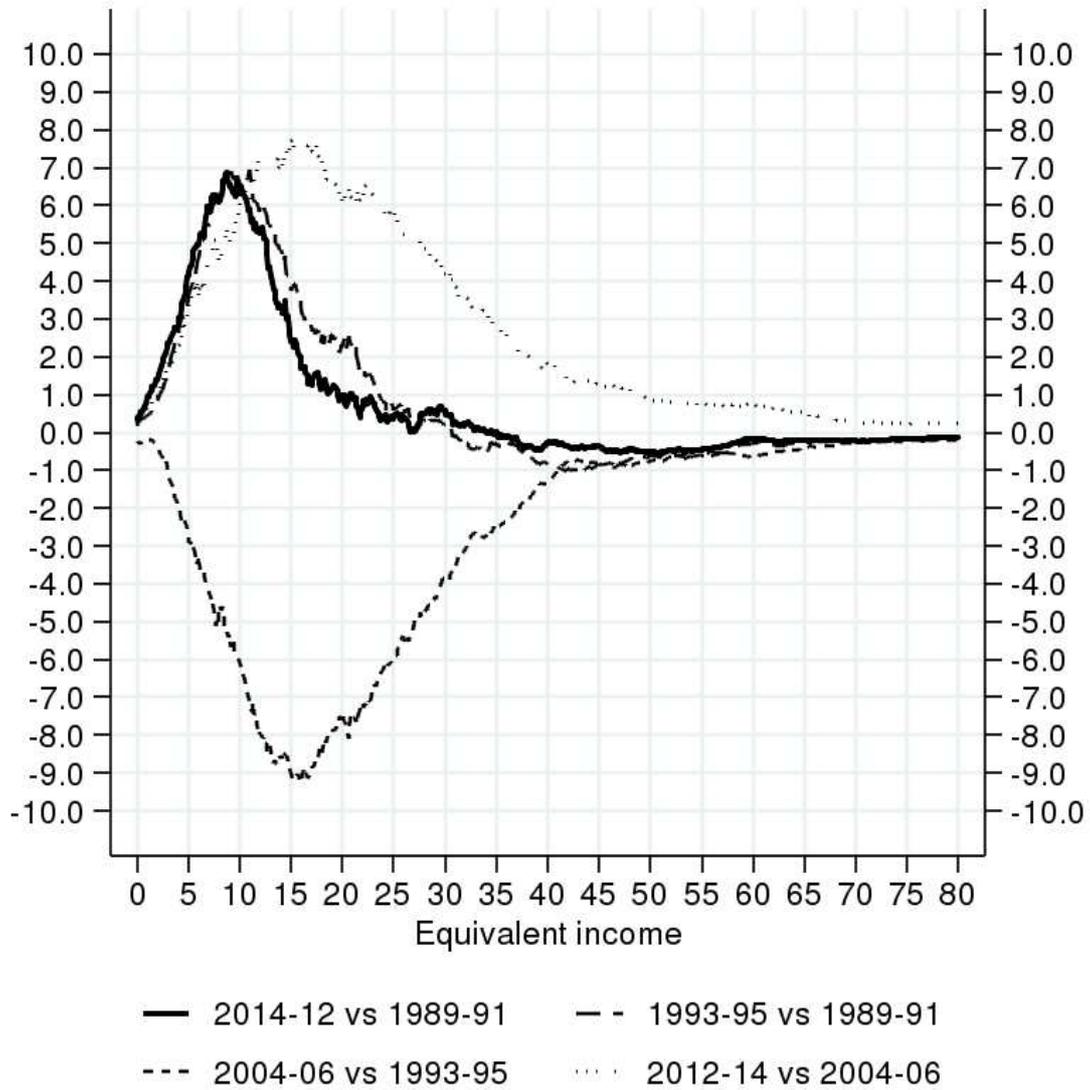
Source: Authors' elaborations on data from Bank of Italy, SHIW-HA (Version 9.1).

Figure 6: Gini coefficient of equivalent and household incomes (per cent)



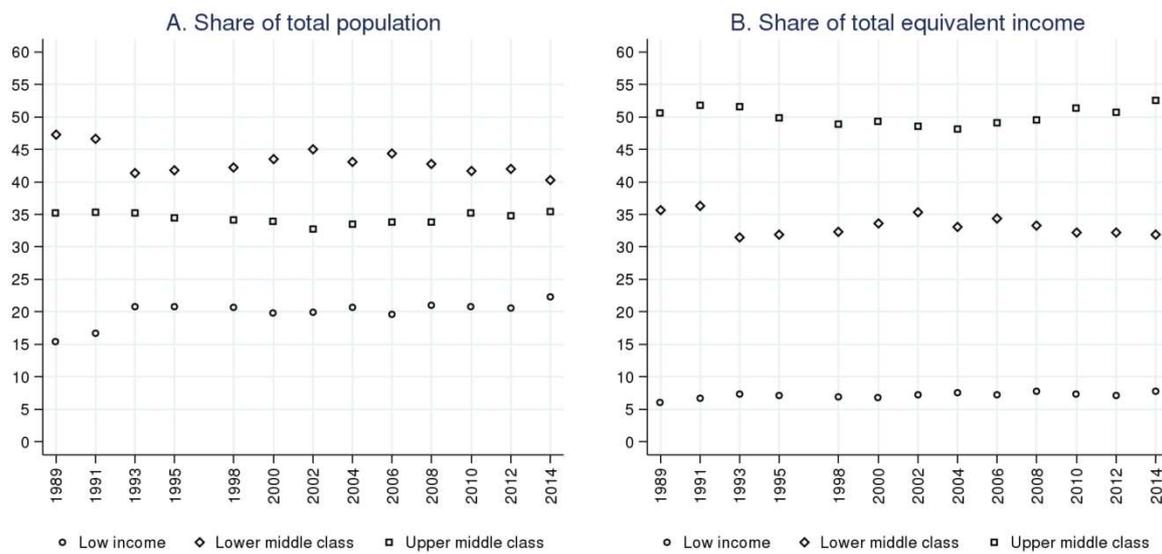
Source: Authors' elaborations on data from Bank of Italy, SHIW-HA (Version 9.1).

Figure 7: Changes in CDFs of real equivalent incomes in selected periods (percentage points)



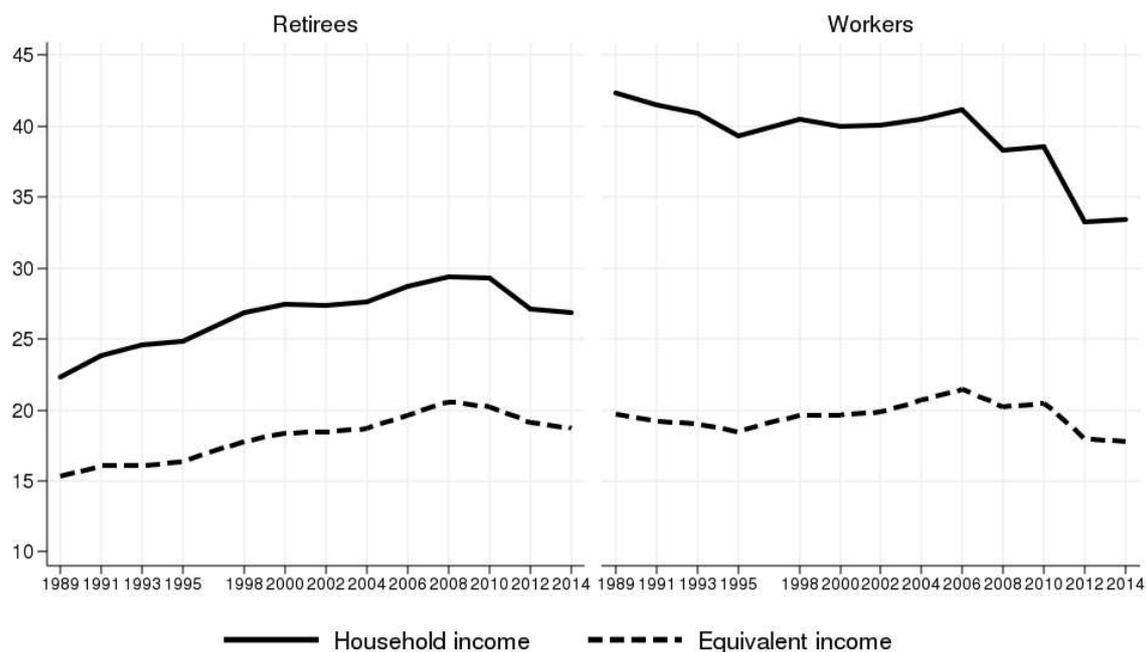
Source: Authors' elaborations on data from Bank of Italy, SHIW-HA (Version 9.1).  
 Note: equivalent income is in thousands of euros at 2014 prices.

Figure 8: Economic social classes over time (per cent)



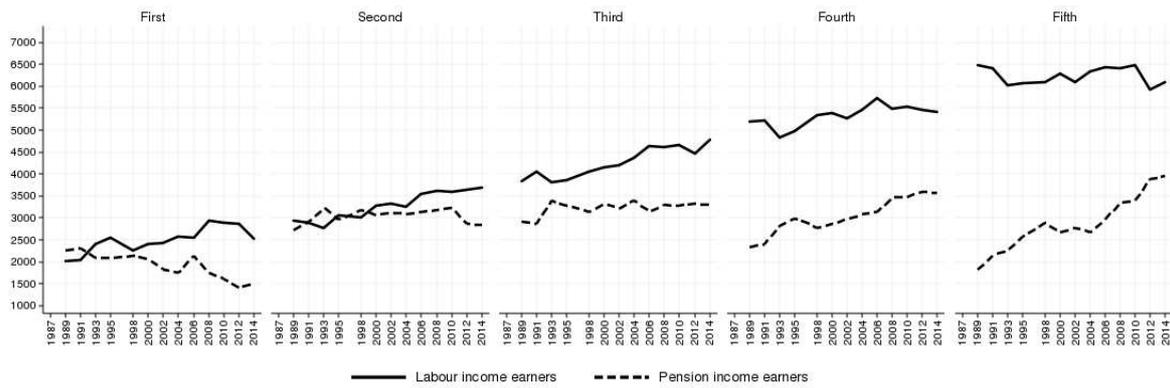
Source: Authors' elaborations on data from Bank of Italy, SHIW-HA (Version 9.1). Low income class: persons with equivalent income below 60 per cent of median; lower middle class: persons with equivalent income between 60 and 120 per cent of median; upper middle class: persons with equivalent income between 120 and 300 per cent of median.

Figure 9: Retirees' and workers' households: total and equivalent average income (thousands of euros at 2014 prices)



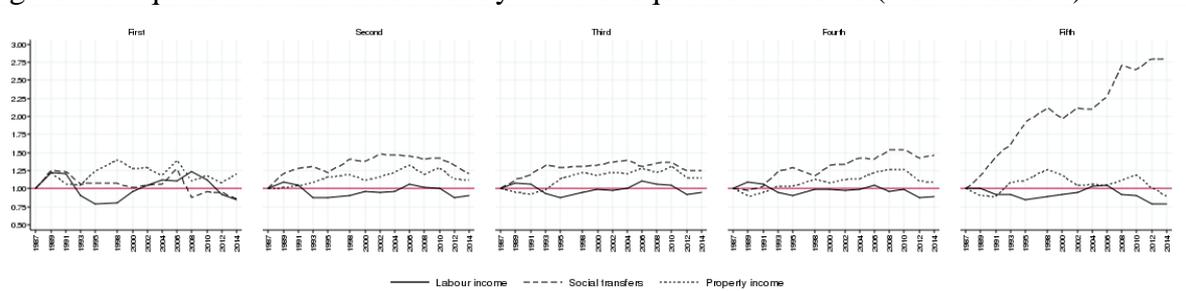
Source: Authors' elaborations on data from Bank of Italy, SHIW-HA (Version 9.1).

Figure 10: Workers and pensioners by fifths of equivalent income (thousands of persons)



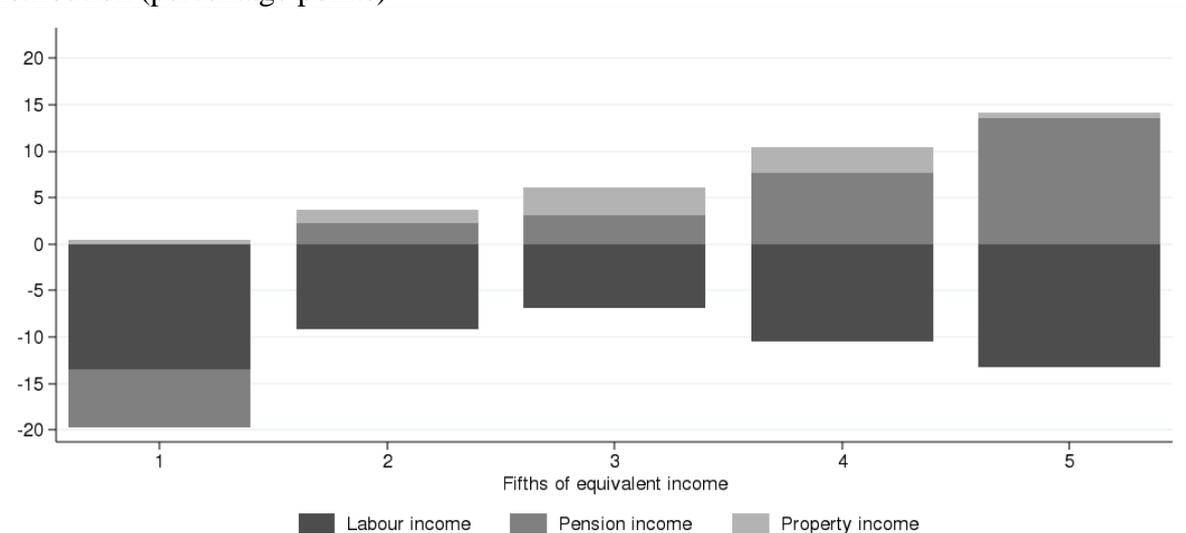
Source: Authors' elaborations on data from Bank of Italy, SHIW-HA (Version 9.1).

Figure 11: Equivalent income sources by fifths of equivalent income (index: 1989=1)



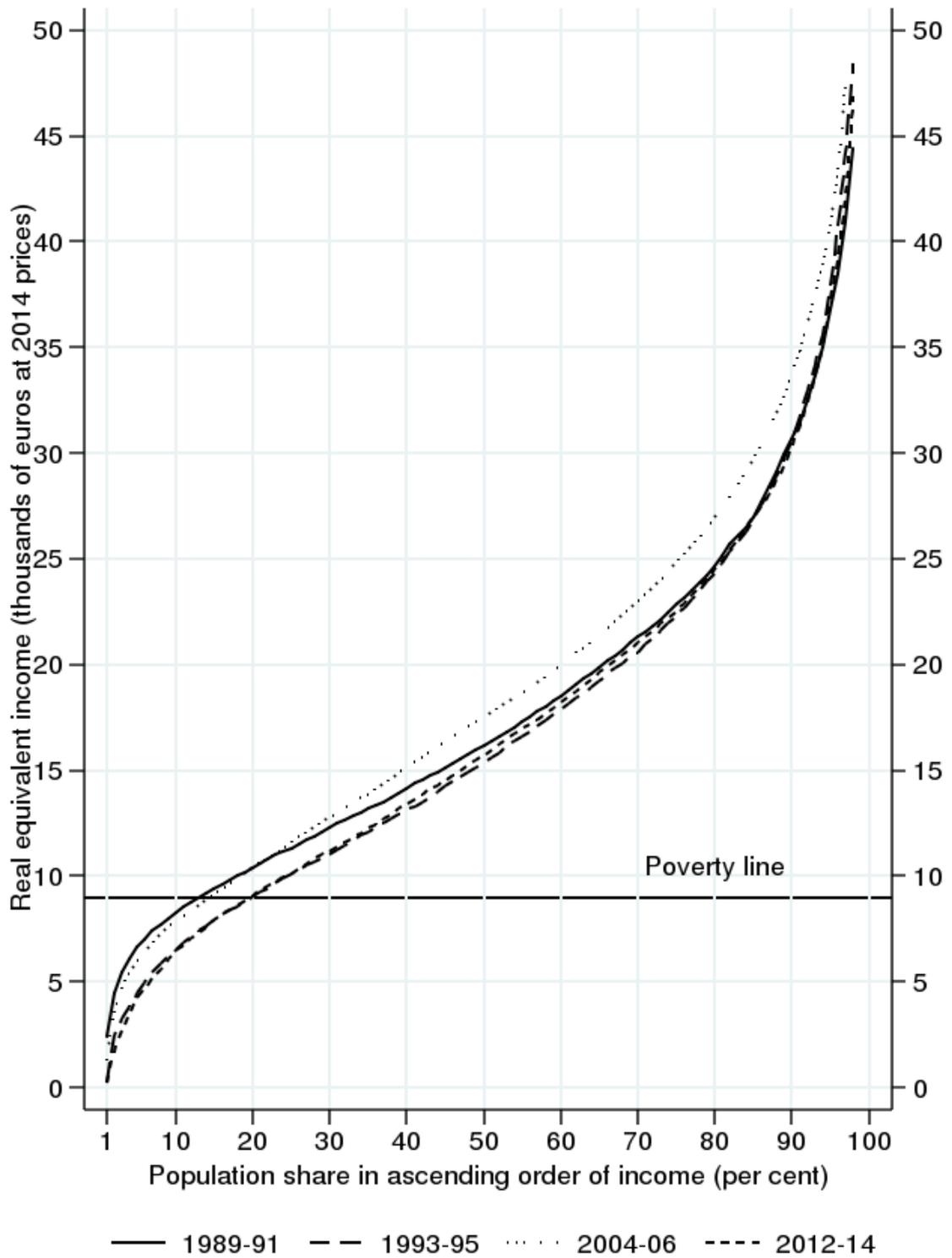
Source: Authors' elaborations on data from Bank of Italy, SHIW-HA (Version 9.1).

Figure 12: Contributions to equivalent income 1987-89/2012-2014 growth along the distribution (percentage points)



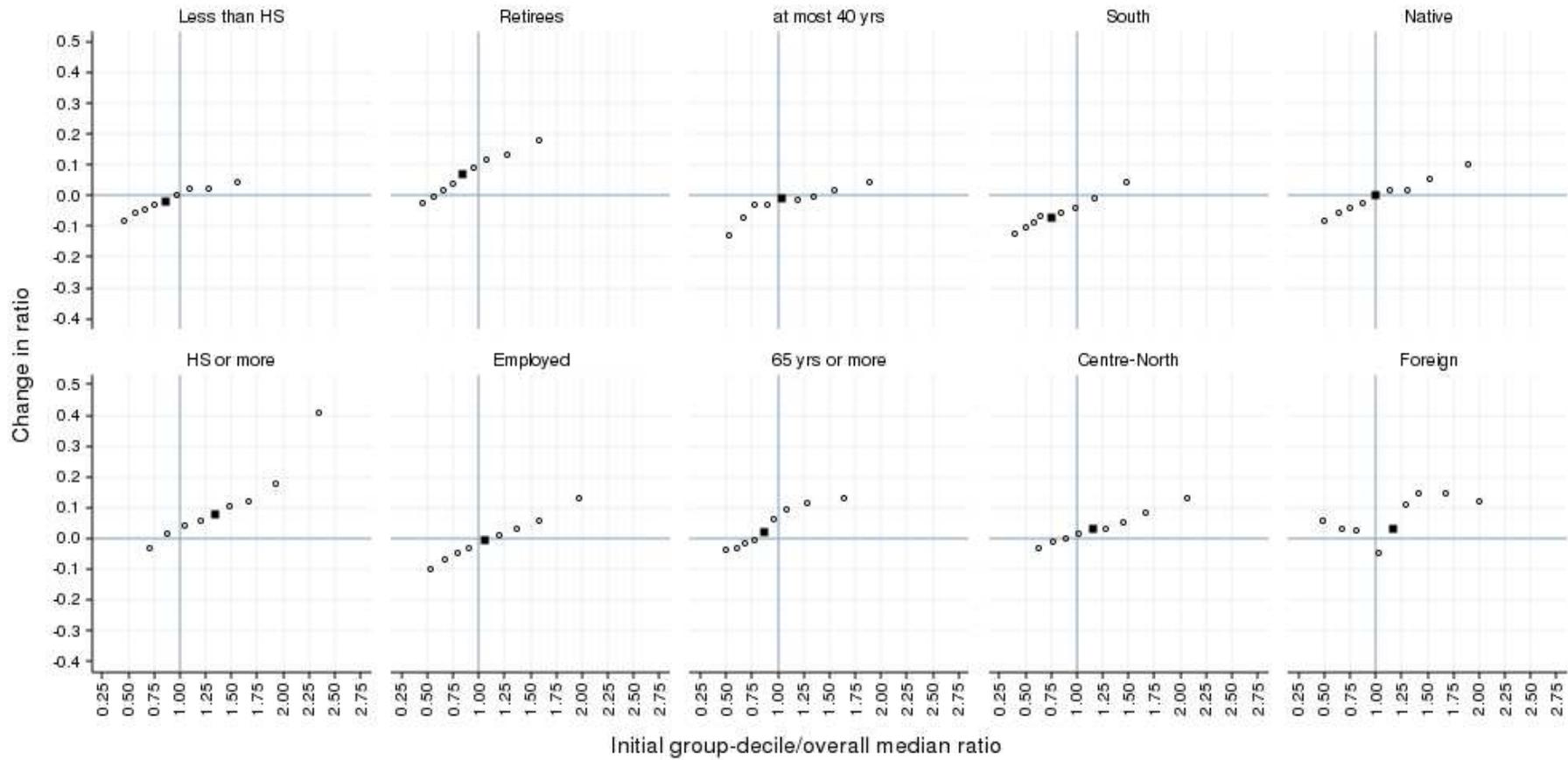
Source: Authors' elaborations on data from Bank of Italy, SHIW-HA (Version 9.1).

Figure 13: Pen's Parade of equivalent incomes (thousands of euros at 2014 prices)



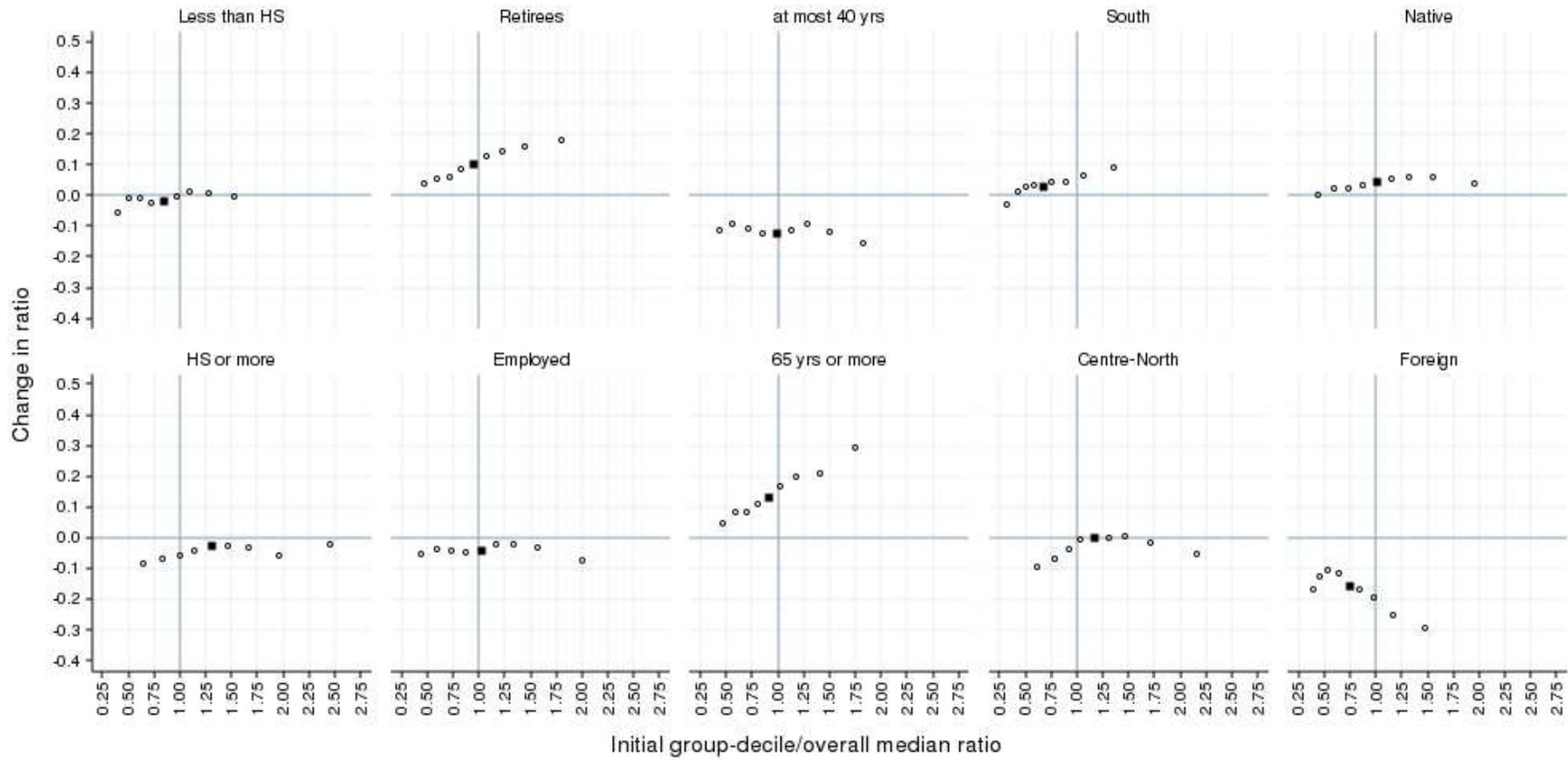
Source: Authors' elaborations on data from Bank of Italy, SHIW-HA (Version 9.1).

Figure 14: Relative equivalent incomes, 1989-91 vs. 1993-95 (units)



Source: Authors' elaborations on data from Bank of Italy, SHIW-HA (Version 9.1).

Figure 15: Relative equivalent incomes, 2004-06 vs. 2012-14 (units)



Source: Authors' elaborations on data from Bank of Italy, SHIW-HA (Version 9.1).