Pensions and the Dynamics of Inequality in Italy: Initial Evidence, 1987-2014

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Abstract

As certified by Eurostat, in 2015 Italy was among the European countries with the most pronounced income inequality, with a "20:20 ratio" of 5.8. That is, the income share of the richest 20% of households is 5.8 times that of the poorest 20%. Only Serbia, Romania, Lithuania, Bulgaria, Spain, Greece, Latvia, Estonia and Portugal displayed a higher inequality ratio that year. Even in the broader group of all OECD countries, including the US and the UK, Italy is among the most unequal. The main difference between Italy and the US or Britain is that in Italy inequality had gradually decreased through the 1980s, scoring a minimum in 1991, before then rising dramatically (Fiorio, 2011; Brandolini and Smeeding, 2008). In the US and the UK, by contrast, inequality has increased steadily. The social costs of income inequality can be substantially aggravated or mitigated by a country's welfare system, so it is important to analyze the structures that the various nations have adopted. The main differences concern both amount of expenditure and the form in which benefits are delivered. For Italy, between 2000 and 2008 the bulk of social expenditure went for old age pensions (59.1% compared with an average of 43.7% in Europe). The article examines trends in inequality in Italy from 1987 to 2014 and analyzes the changing distribution of individual incomes by source (payroll employment, self-employment, pension) and by geographical area.

1. Inequalities in Italy: a brief introduction on the determinants

According to the World Values Survey (WVS),[1] Italians assign greater weight to inequality issues than people in many other countries. Meanwhile, the most widely held idea among Italians is that personal commitment is much less important in achieving economic success than family fortune and connections. What are the key elements of household income and wealth in Italy? What factors determine them? Inheritances and gifts from one's family are seen as the basis of the individual's wealth. According to WVS estimates, in 2002 a substantial share of household net wealth was accounted for by transfers in the form of inheritance and donations. Also important is the role of stock market capital gains: the financial remuneration of individuals who risk in the financial market has contributed significantly to household wealth.

A crucial component of household income and wealth in Italy, particularly important for our research, is earnings from labor and pension income. A number of studies (e.g. Della Sala, 2002) have shown that labor income (thus including pensions) depends on a set of factors that determine family conditions and on "early life conditions," which means that an important part of success in work is due one's childhood environment and conditions. It has been shown by many authors (Della Sala, 2002) that the children of the well-educated will be well educated themselves, and they are likely to choose the same occupation as their parents, benefiting from an environment that forms them at an early age and enables them to leverage the network of their parents' connections. Finally, another factor in high wealth levels (hopefully for only a small part of the population) is tax evasion or outright criminal activity (Ascoli, 1984).

[1] The WVS is a global research project on values and faiths, how they change over time, and their social and political impact. An international network of social scientists from almost 100 nations has been working on the project since 1981. The WVS is the only source of empirical data on the behavior of the majority of the world population. Further details in www.worldvaluessurvey.org/wvs.jsp

To conclude this brief overview of the determinants of inequality in Italy, let us note the country's very low degree of social mobility (Ascoli and Pavolini, 2015; Franzini and Pianta 2015). Among the factors that hinder mobility we find:

- The role of family;
- The broad diffusion of small, family-run businesses;
- The presence of professional orders restricting or blocking access to outsiders;
- Career advancement based on seniority and not merit.

As one can easily infer from this brief list, family plays a crucial role: it is at one and the same time the main source of income and wealth and the main obstacle to intergenerational mobility. This article enquires into the role that pensions have played in reducing or increasing income inequality. Our interest in this aspect of the question stems from the repeated pension reforms enacted since the early 1990s for the purpose of ensuring fiscal sustainability. It is not clear whether future pensions will be of the same amount as those of the past, insofar as this depends on a number of factors that vary from individual to individual (Gronchi and Manca, 2013: 246). One major determinant is the individual's lifelong employment history. The fact that the post-2008 recession has hit the younger generation of Italians extremely hard, driving the youth unemployment rate up to 40%, makes it questionable whether this generation of workers, when they retire, will be able, like past generations of pensioners, to support themselves and their children. In fact, as we shall see further on, since the early 1990s the most stable component of family income, partially offsetting the effects of recession and worsening inequality, has been pension income, above all in the southern regions. It seems unlikely that pensions will continue to be able to play this role for future generations.

2. Welfare state, pension systems and income inequality: A theoretical and historical perspective

In recent years the economically advanced countries have wit-

nessed sharply increasing interest in inequality of wealth and income. In any country, inequality can be greatly attenuated by welfare state institutions. We begin this section with a summary of the main traits of welfare systems in Europe. More than two decades ago Maurizio Ferrera published his seminal paper on the "Southern Model" of European welfare state (Ferrera, 1996), identifying four main characteristics of the systems in place in Italy, Spain, Portugal and Greece. Since then the "Southern" or "Mediterranean" model has taken its place in the literature alongside the other three established models: the social-democratic (or Scandinavian, or Nordic), the liberal (or Anglo-Saxon) and the Continental (see also Esping-Andersen, 2001; Ferrera, 2010). The defining features of the Southern European welfare model, according to Ferrera, are:

1) an income support system characterized by high fragmentation, dualism and corporatism;
2) a universalistic National Health Service;
3) relatively low State penetration and a mix of public and non-public actors in the welfare sphere;
4) persistent nepotism and selective distribution of benefits based on "patronage machines".

The most important characteristic of such systems has been the great emphasis on old age pensions at the expense of unemployment, sickness and family benefit programs (Andreotti and Sabatinelli, 2004). To compensate for these imbalances, Southern European welfare systems depend very heavily on families as a "social clearinghouse" (Ferrera, 1996, 21). Decades after the original conceptualization of the Southern model, the debate continues. Indeed, it has been renewed and reinvigorated as a direct consequence of the economic turmoil in Europe, above all the South, since 2008.

Most industrialized countries have experienced dramatically declining birth rates and at the same time, thanks to higher living standards, improved public health and medical advances, lower death rates. The consequence has been unprecedented population ageing, with enormous distributional distortions. Accordingly, a crucial feature of modern welfare systems is the model governing the eco-

nomic life of the population during old age. And pension systems can have substantial impact on inequality as they regulate living standards after retirement. The key variables that governments can control are age at retirement and the pension award formula (i.e. defined contribution or defined benefit); a significant factor is the life expectancy tables computed by the relevant institutions.

The age at retirement controls the sharing of income between workers and retirees: the longer the working life of individuals, the smaller the contributions that must be deducted from current earnings to pay current pensions. Despite the importance of this issue, the literature on how pension reforms have affected income inequality is scanty. Exceptions are Weizsficker (1995), analyzing the German pension reform and evaluating its effect on the distribution of income; van Vliet et al. (2012), assessing the impact on income inequality of the shift from public to private pension plans after reforms of public pension systems in 15 European countries; Gough et al (2008), analyzing the links between pension reforms, retirement age, income, and retirement decisions with nationwide data from Italy and the UK; Andreou and Pashardes (2009), examining income inequality and poverty in Cyprus as affected by that country's pension reform.

Population ageing has put enormous pressure on the public finances in all the advanced countries, highlighting the issue of sustainability in the face of heavy pension liabilities. In the Mediterranean countries of Europe, the problem has been aggravated by the high debt-GDP ratio, which put them under unremitting pressure – as they entered the European economic and monetary union (EMU) – to comply with the rules imposed by the European Union treaties.

Consequently, practically all the advanced democracies had to reform their pension systems to ensure financial sustainability. The need for these reforms being undeniable, their distributive effects for the elderly have received little attention.

We will now briefly review Italy's two major pension reforms: the Dini reform of 1995 and the Fornero reform of 2011. With the for-

mer, enacted by Law 335/1995, Italy switched from the defined benefit system, in which the pension award was determined on the basis of earnings in the worker's last years of service, to a notional defined contribution scheme (based on career-long contributions). Workers with more than 18 years of contributions through 1995 continued to enjoy the defined benefit formula, those beginning work from 1996 on had a totally contribution-based pension, and the rest had benefits pro-rated between the defined benefit and the defined contribution formula.

The Fornero law went into effect at the end of December 2011. The main change worked by this reform was to raise the legal retirement age: the flexibility provided for by the Dini reform (people aged 57 to 65, both men and women, were eligible to retire) was replaced by a fixed minimum of 65 for men and 60 for women. The Dini law still allowed retirement after a minimum of 30 years of contributions regardless of age.

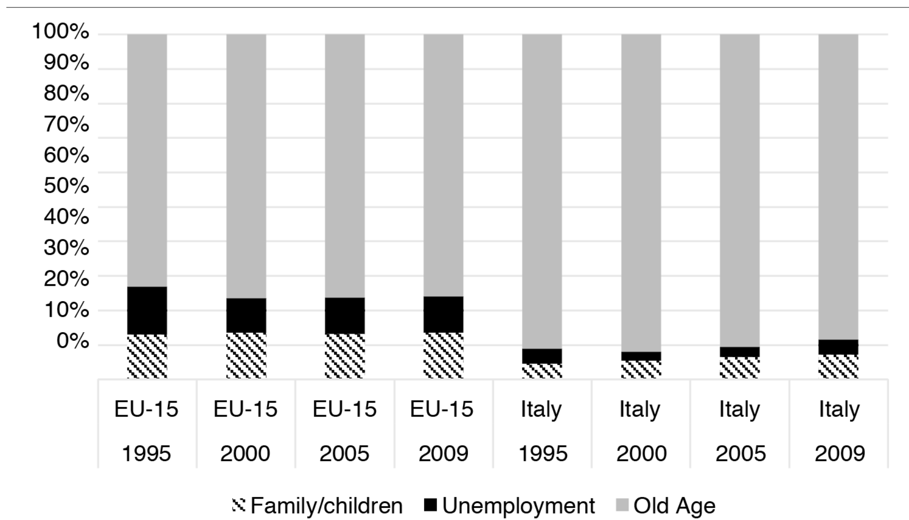
Fornero accelerated some of the reforms legislated in the 1990s (including one sponsored by Giuliano Amato, not described here), whose implementation had been slow for political reasons. The retirement age was raised and linked to longevity. There was also a move towards equalizing retirement ages between men and women, and an improvement in the mechanism for future benefit adjustments, linking them to gross domestic product. Finally, Fornero sought to eliminate early retirement rights.

The Fornero reform instituted universal and flexible rules in order to make the pension system sustainable in the long run. The effects will be fully felt only decades from now; and the instability from which Italy suffers continues to generate uncertainty over possible changes to pension rules in the years to come. Between 1992 and 2013, for instance, 21 changes to pension laws were enacted; and retirement rules were altered drastically three times between 2004 and 2011 (Gronchi and Manca, 2013: 245-246).

The 1990s saw some modification in the share of public expenditure allocated to the various sectors (see Figure 1). Within the social spending sector itself, however, it is worth noting that the

incidence of pensions decreased by just 4 percentage points 1995 and 2009, that of spending for family and children increased by just 1.5 points, while the share of overall social expenditure remained almost unchanged.

FIGURE 1
Social expenditure by function (% of total social spending), Italy and EU-15, 1995-2009

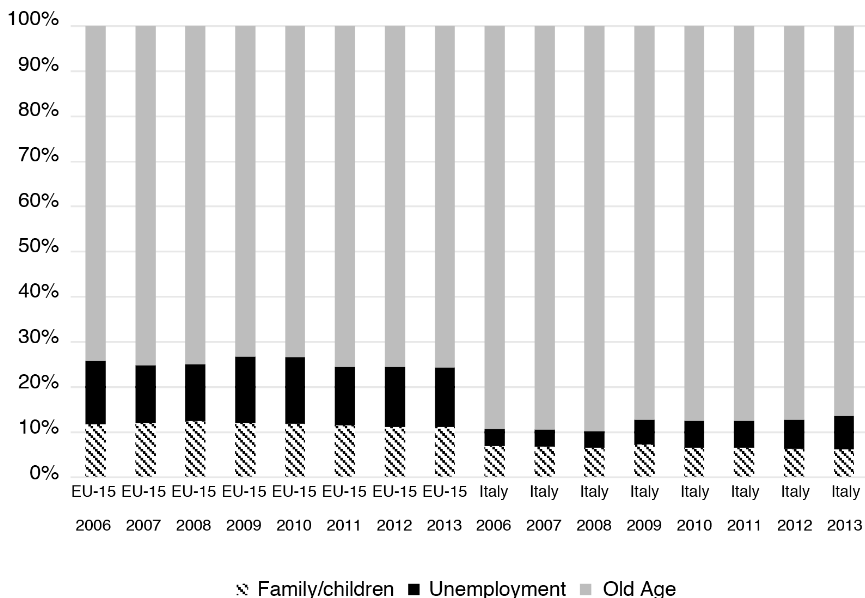


Source: Based on Eurostat online database.

The distortion of the Italian welfare system remains clear, insofar as, unfortunately, the weight of old age expenditure in relation to GDP remains high, even compared with the other euro-area (EU-15) countries (Figure 2). Meanwhile, other social expenditures (health, family and children, social exclusion, unemployment) have increased their GDP shares, though they are still heavily outweighed by old age spending.

This clearly indicates an economic model requiring a powerful institutional shift in order to offer hope to younger generations. But the recession that began in 2008 has significantly depressed economic growth and wealth in the euro-area countries, and particularly in Italy (Dagnes et al., 2018; Franzini and Pianta, 2015). This

Figure 2
GDP share of spending on Old Age, Family/Children, Unemployment: Euro area (EU-15) and Italy (2004-2013)



Source: Based on Eurostat online database.

has had an impact on GDP, which has decreased steadily in recent years, a development that cannot be ignored when it comes to assessing the relative trend in social expenditure.

Further, crisis dealt a severe blow not only to the economy but to Italian society more generally, highlighting once again the persistent structural weaknesses of the country's welfare model. As in 1995, the financial emergency caused serious political turmoil, resulting in the formation of a government of technocrats headed by Mario Monti, which enacted another pension reform at the end of 2011 (the Fornero reform mentioned above) in order to correct the anomalies in income distribution still present and to further curb the rise in expenditure for the coming decades.

After these brief introductory remarks on the role of pension income, we present the results of an empirical analysis that shows the

equalizing effect of pensions in the formation of household income. We make use of a very rich dataset, seldom used for similar studies.

3. Income components and the dynamics of inequality

The data for this article come from the historical database of the Bank of Italy's Survey of Household Income and Wealth (SHIW). In our work we use the waves from 1987 to 2014, because prior to 1987 self-employment income was not measured.

The SHIW is a biannual cross-sectional survey that provides income estimates for Italian households. The SHIW historical database is the only dataset permitting one to gauge changes in Italian household income distribution over the years and relate income to individual and household characteristics and to income components.

We exclude the data on capital, building and real estate income, which are often biased and suffer from significant measurement errors.

What we want to measure is the equivalent household income, i.e. total household income divided by the number of "equivalent adults" in the household. For our purposes here, total income is taken as the sum of labour income (i.e. income from payroll employment and self-employment) and pension income.

To analyze the role of each source on the dynamics of income inequality, we refer to Lerman and Yitzhaki (1985), in which the Gini coefficient for total income inequality, *G*, is factorized as:

$$G = \sum_{k=1}^{K} S_k G_k R_k \qquad k = 1,2,3$$

where *Sk* represents the share of source *k* in total income, *Gk* is the Gini index corresponding to the distribution of income from source *k*, and *Rk* is the Gini correlation of income from source *k* with the overall distribution of income.[2]

[2] $Rk = Cov\{yk, F(y)\} / Cov\{yk, F(yk)\}$, where $F(y)$ and $F(yk)$ are the cumulative distributions of total income and of income from source *k*.

The advantage of this approach consists in the possibility of measuring the influence of any given income component on total income inequality, as this depends on:

- the size of the income source with respect to total income (*Sk*);
- how unevenly distributed the income source is (*Gk*); and
- how the income source and the distribution of total income are correlated (*Rk*).

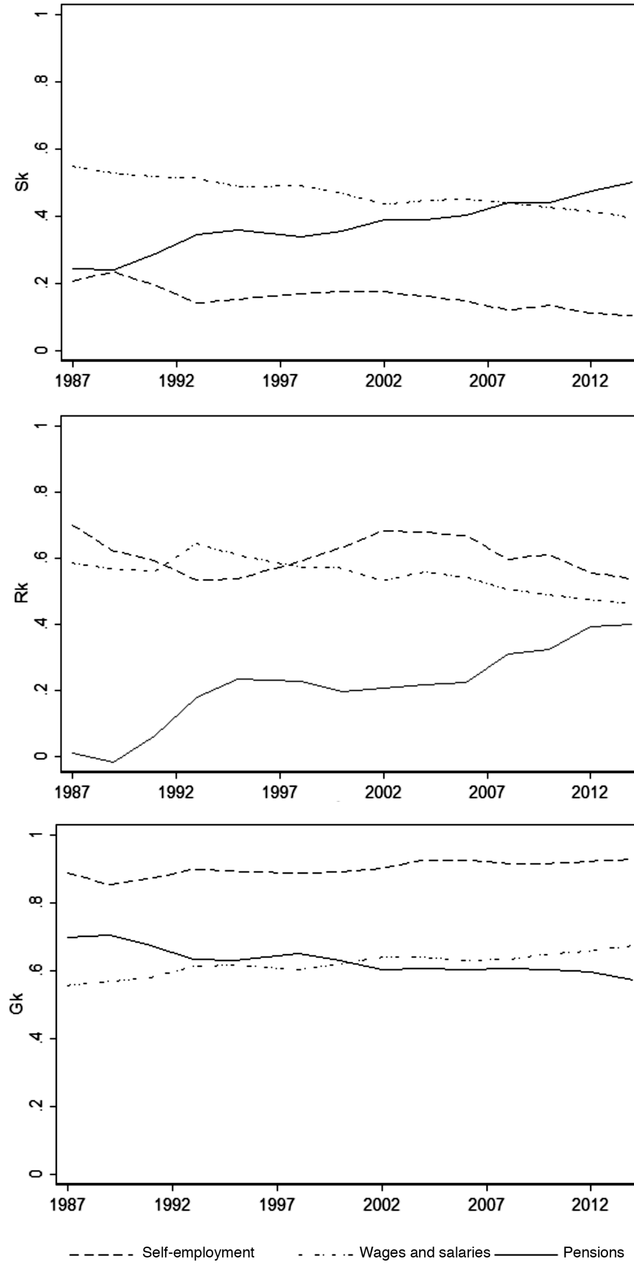
If a given source forms only a minor share of the total income, it cannot have a large impact on inequality, even if it is very unevenly distributed. On the other hand, if the source is equally distributed ($Gk = 0$), it cannot augment inequality, even if its magnitude is great. But if an income source is large and unequally distributed (both *Sk* and *Gk* large), then it will either increase or decrease inequality, depending statistically on the identity of its recipients. If the source is unequally distributed and flows disproportionately to the top of the income distribution (*Rk* is large and positive), it will heighten inequality. However, if it is unequally distributed but goes largely to lower-income households (*Rk* is large and negative), it will have an equalizing effect on the income distribution.

Figure 3 shows, for each of the three sources considered (self-employment income, pension income and salaried income), the dynamic of the components of the total Gini index. The top panel makes it clear that the importance of pensions has increased over time, contributing a steadily increasing share of households' equivalent income. Moreover, pensions have played an equalizing role in income distribution (central panel), though this effect has moderated with the years; pensions are in fact the most equally distributed source of income (bottom panel).

Geographically, a most interesting pattern emerges. The relative importance of payroll employment as a source of household income has decreased dramatically in the South ($S_{k,1987} = 0.5712$, $S_{k,2014} = 0.4643$), its place being taken by pensions. A similar development can been seen in the regions of the Centre.

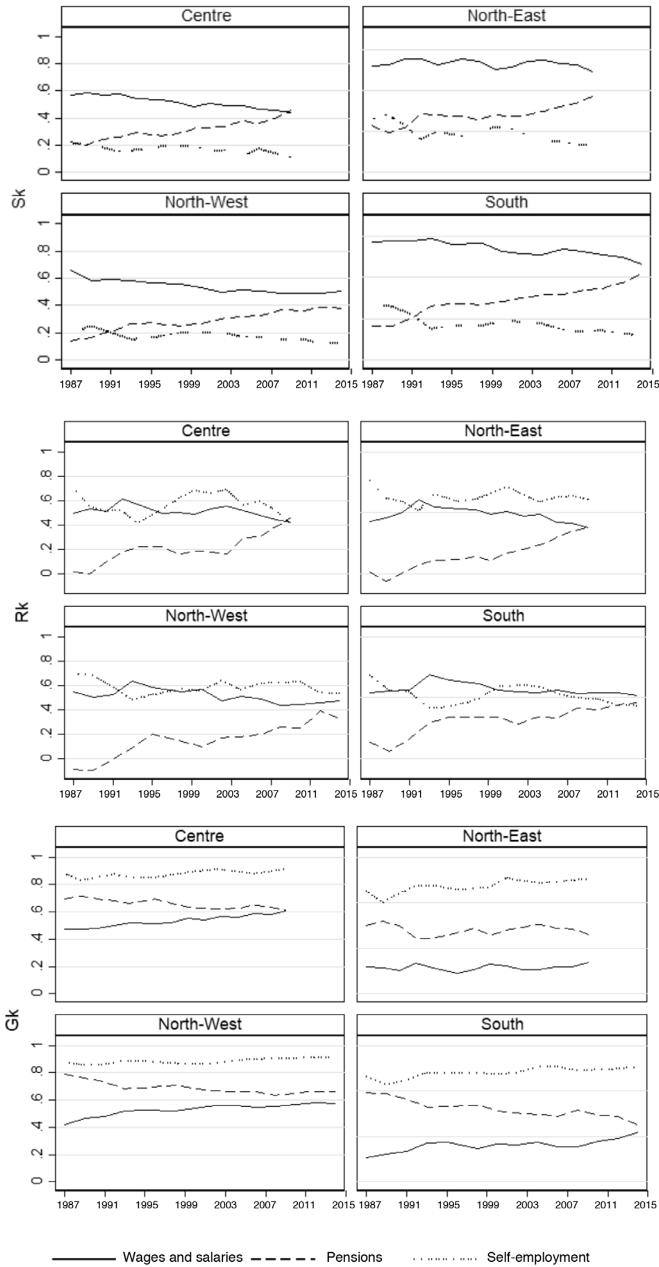
By income source (bottom panel in Figure 4), the Gini index indicates the same order in all three macro areas: self-employment is

FIGURE 3
Time series of S_k, G_k e R_k (1987-2014)



Source: Based on SHIW.

FIGURE 4
Time series of S_k, G_k e R_k by macro area (1987-2014)



Source: Based on SHIW.

the most unevenly distributed, followed by pensions; salaried income is the least unequally distributed. However, the actual levels of the inequality index vary sharply: income from salaried employment has a Gini index constantly above 0.4 in the Centre and in the North-West, while in the South and North-East it is around 0.2. In short, the figure attests to the considerable regional disparities that characterize the Italian economy and society.

The peculiarity of the Italian welfare system consists in the internal composition of social spending. In the period 2000-2008 the overwhelming majority was absorbed by the "old age" function, and in particular by the pension system. If the financial unsustainability of the Italian pension system made pension reform vital and urgent (as typified by the Dini and Fornero laws), it is still mandatory to gauge and understand the impact that the notional defined contribution award formula will have once it is fully phased in. For our study has made it clear that Italian household income has depended very heavily on old age pensions, especially in certain geographical areas.

Conclusions

We have examined the trend in income inequality in Italy during the period 1987-2014, as measured by the Gini index. Italy is one of the countries where income is most unequally distributed, but unlike the UK and the US, where inequality became progressively more severe, Italy recorded a gradual attenuation of inequality through the 1980s, registering a minimum in 1991, before it turned sharply back upward.

Using the Gini index, we disaggregate overall inequality into inequality of the three main sources of household income: pensions, wages and salaries, and self-employment. This analysis makes it evident that the importance of pensions has increased over time, contributing more and more to total equivalent household income. And pensions have played an equalizing role in overall income distribu-

tion, though this effect has moderated over time, as pensions are in fact the most equally distributed of our three sources. In conclusion, the great amount of Italian public expenditure consisting in old age pensions worked to produce greater overall equality in Italian household income, especially in the southern regions.

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