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Inequality trends in a slow-growing economy: Italy, 1990–2020

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Abstract

This paper presents stylised facts on the labour supply and income inequality of individuals aged 25–55, drawn from the 1989–2020 Bank of Italy Survey of Household Income and Wealth. Over the sample period, earnings inequality has increased considerably although the gap is smaller when considered in terms of household disposable income. We investigate the possible drivers of this increase using administrative data on employees. The evidence suggests that labour market reforms implemented since the start of the 1990s are the most plausible explanation for this growth in earnings inequality. Comparison between earnings and disposable income suggests that both government and households are important for reducing inequalities.

KEYWORDS
administrative data, inequality, mobility, survey data

JEL CLASSIFICATION
D31, H24, I24, J21

1 | INTRODUCTION

Over the last 30 years there have been dramatic changes to the Italian economy. Population ageing and falling fertility rates have been accompanied by a series of labour market reforms that have increased labour flexibility, financial reforms that have liberalised credit markets, and several reforms that have increased the retirement age and reduced retirement benefits for future generations. One of the major aims of the pension reforms was to increase labour market participation rates – currently among the lowest in Europe. There have also been dramatic changes to fiscal and monetary policies. A period of rising national debt was halted in the 1990s with debt stabilisation and convergence to the Maastricht

criteria, and in 1999 responsibility for monetary policy was delegated to the European Central Bank (ECB), signalling the end of an era of sustained inflation.

The new millennium was marked by several distinct shocks:

(i) a technological shock induced by the information and communication technology (ICT) revolution, which caused skills mismatches in the labour market and led to the reallocation of capital and labour across firms, sectors and countries;
(ii) a severe economic crisis following the collapse of the financial system in 2008;
(iii) the sovereign debt crisis in 2011 caused by the high public debt accumulated in previous decades;
(iv) climate change and the need to rethink production methods (especially in energy-intensive sectors), consumption patterns and urban housing provision;
(v) the COVID-19 pandemic and shock in 2020–21, which were accompanied by social distancing measures;
(vi) the war between Russia and Ukraine, which is likely to affect European countries for many years to come.

To some extent, each of these shocks was 'new' and could not have been predicted, affected individuals and households differently, and put severe stress on the population in both the short term (depending on their income, occupation, family structure and wealth buffer) and the long term by affecting labour supply and investment in education. These new inequalities overlapped the older structural inequalities that characterised the Italian economy such as the South–North divide, gender differences, and intergenerational and intragenerational divides. In short, the current economic environment, in which Italian households choose whether to work, how much to work, where to work, and how much to consume and save, has changed radically from the environment of only 10 or 20 years ago.

This paper summarises some stylised facts on labour supply, earnings and income inequality among the working-age population using data from the Bank of Italy Survey on Household Income and Wealth (SHIW), which is a representative survey of the Italian population that has been conducted for several decades. The paper builds on existing work using administrative data, and updates the analysis in Jappelli and Pistaferri (2010) to the last decade.

From a comparative perspective, Italy is an interesting case; it has one of the highest income inequality rates among the group of OECD countries, making it one of the most unequal among the developed countries. Figure 1 depicts Italy's ranking based on the Gini index of equivalised disposable income – a measure of income inequality in OECD countries calculated using the Luxembourg Income Study (LIS) database with 2016 as the reference year. Data are standardised to the Italian reference value (0.336). Figure 1 shows that for inequality Italy is ranked immediately below the United States (and slightly below Spain). The Gini indices for Germany, France and most other European countries are 10–20 percentage points lower than Italy. Using cross-country administrative data on earnings, Guvenen, Pistaferri and Violante (2022) show also that, over the last three decades, Italy experienced a rise in inequality.[1]

The paper is organised as follows. In Section 2, we describe the macroeconomic context in Italy for the period under analysis. The stylised facts on labour supply, earnings and disposable income discussed in Section 3 rely mostly on SHIW data. These data allow the construction of relatively long time series of income and inequality measures from 1989 to 2020. In Section 4, we present data on labour force characteristics and dynamics. In Section 5, we compare trends in earnings inequality from different data sources, and with trends of inequality in disposable income. We also compare the main

[1] Brandolini (1999) is the first comprehensive analysis of income inequality in Italy and its historical trends (1947–95) based on data from surveys conducted by the Doxa Institute in 1947–48, the Bank of Italy SHIW, the Euro Panel (ECHP) and the Italian Central Statistical Office (ISTAT). The findings suggest a slow decline in income inequality (measured by the Gini index) from the early 1970s to the end of the 1980s, and increasing inequality in the 1990s. Brandolini (2023) shows that inequality trends in Italy differ according to the data source, the variables and the sample definition.

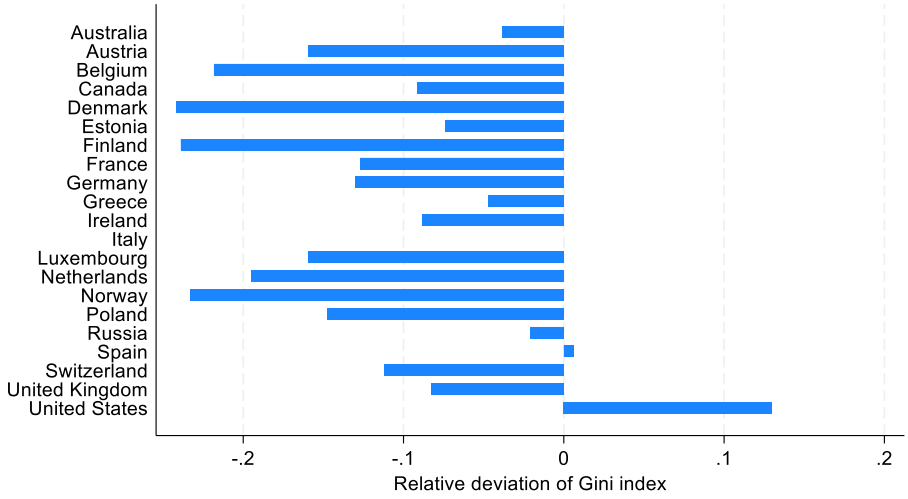

FIGURE 1 International comparison of income inequality. *Note*: The figure plots the relative deviations of the Gini index of disposable household income, adjusted for household size. Values refer to 2016. Deviations from the Italian value are divided by the Gini index in Italy (0.339 in 2016). *Source*: Luxembourg Income Study, www.lisdatacenter.org/data-access/dart/. [Colour figure can be viewed at wileyonlinelibrary.com]

trends using administrative data from the Italian National Social Security Institute (INPS).[2] Previous research investigating the pattern in income inequality in Italy suggests that it increased considerably in the 1990s and remained at this high level until 2015, before increasing further in 2020. The most likely explanation for this rise in income inequality is the increased labour market flexibility that has resulted from the labour market reforms implemented over the last 30 years. In Section 6, we discuss the high inequality and low rates of mobility in Italy, which are the result of unequal opportunities combined with low levels of intergenerational mobility. Section 7 provides the final summary of our findings.

2 | MACROECONOMIC BACKGROUND

During our sample period 1989–2020, Italy suffered three sharp recessions and some less dramatic economic fluctuations, ending a period of sustained growth during the 1980s. The first of these episodes occurred in the 1992–93 financial crisis, when for the first time since the end of World War II consumption fell in real terms (see Figure 2). This was followed by some milder fluctuations before a second recession episode in 2008–11. This shock was due to the combined effect of the global financial crisis and the sovereign debt crisis, and saw gross domestic product (GDP) falling by over 5 per cent in 2008 and (after a recovery) by around 3 per cent in 2012. The third shock was caused by the 2020 COVID-19 pandemic when GDP fell by 10 per cent.[3] Figure 2 plots GDP growth rates from 1989 to 2020 and shows that throughout the 1990s and at the start of the new millennium the Italian economy was characterised by slow or stagnant growth. During the period studied, the unemployment rate first climbed steadily (peaking at 12 per cent in 1997), and then experienced a series of swings, declining to 6 per cent in 2007, increasing to almost 14 per cent in 2014, and then declining to around 7.5 per cent in 2023.

[2] INPS stands for *Istituto Nazionale della Previdenza Sociale*.

[3] Our survey and administrative data are not available after 2020, so we cannot study the consequences of the COVID-19 pandemic on economic inequality.

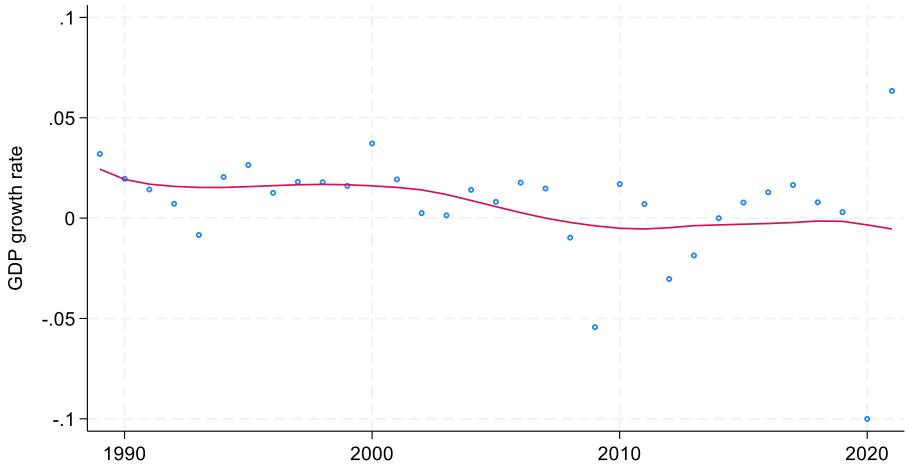

FIGURE 2 GDP growth. *Note*: The figure plots actual GDP annual growth rates from 1989 to 2021 in Italy, and smoothed means of the same series. *Source*: ISTAT, National Accounts. [Colour figure can be viewed at wileyonlinelibrary.com]

At the same time, Italy has experienced a rapid demographic transition with an accelerated rate of population ageing due in part to an increase in life expectancy and in part to a dramatic fall in fertility rates (from 2.5 children per woman in 1965 to 1.3 in 1990) coupled with increased female labour force participation. The demographic transition has affected the structure of the population, inducing dramatic changes to family size and composition, and to the size of new cohorts entering the labour market. The share of couples with children has declined, while the proportion of single households has quadrupled from 2.5 per cent in 1980 to 10 per cent in 2020. These trends have resulted in a decrease in the average household size from 3.9 in 1980 to 3 in 2020, with relatively younger cohorts having smaller families. At the same time, the share of working household members has risen from 0.55 in 1989 to 0.69 in 2020 (Fiorio, 2011).[4] A persistent characteristic of the country is that young individuals live with their parents. In Italy, over 60 per cent of young people aged 18–34 live at home with their parents, whereas this share is around 45 per cent for the European Union as a whole.[5]

Labour market reforms that increased labour market flexibility are the most important institutional change affecting earnings and income dynamics.[6] In the 1990s, policy measures introduced in the 1970s and 1980s aimed at wage compression and reduction of inequalities were replaced by measures that increased income disparities and wage instability. In the decades following World War II, and in 1973 in particular, labour markets were tightly regulated and wage indexation meant that all employees received the same absolute increase in their wages in response to price changes.[7] The first labour market reforms in 1992 abolished wage indexation and were followed by a wave of reforms aimed at increasing labour market flexibility. The 1997 so-called Treu reform, followed in 2003 by the Biagi

[4] Over the last decade there has also been a significant increase in citizen registry cancellations (emigration) and a volume of entries that does not balance the exits (overall 980,000 expatriations and 400,000 repatriations). Consequently, the migration balances of Italian citizens abroad are negative, especially starting from 2015, with an average of 69,000 fewer units per year. The balance is negative especially for young citizens with college degrees (see ISTAT, 2024).

[5] Recent data from Eurostat indicate that in 2014 the estimated average age of young people leaving the parental household was 30.1 years, and 30 in 2023; see https://ec.europa.eu/eurostat/databrowser/view/yth_demo_030/default/table?lang=en.

[6] Another important institutional change was the sequence of pension reforms starting in 1992, aimed at reducing the imbalance in the social security system induced by the progressive ageing of the population. There was also a banking reform and financial liberalisation process, which culminated in accession to the euro area in 1999.

[7] Manacorda (2004) argues that the indexation mechanism induced wage compression and reduced wage inequality. Erickson and Ichino (1995) explain the decline in wage inequality in Italy between the late 1970s and late 1980s similarly.

reform, reduced protection related to temporary employment, and increased the maximum number of repeated temporary contract renewals with the same employer and the variety of contracts (Boeri and Garibaldi, 2007). These two-tier reforms were followed by the 2015 Jobs Act, which reduced the costs related to firing in the case of open-ended contracts (Daruich, Di Addario and Saggio, 2022). This sequence of reforms produced a significant increase in employment accompanied by stagnating real wages, because new employment opportunities were in sectors with low productivity growth (Checchi, 2012).

3 | DATA

The SHIW is an important source of microeconomic data on Italy and includes detailed information on demographics, labour supply, income, consumption and wealth (distinguishing between real and financial wealth).[8] The availability in the same survey data of information on income, consumption and wealth (and a panel component) makes the SHIW a unique reference source for macroeconomic researchers interested in income, consumption and wealth inequalities and how they change over time.[9]

Because earnings data are available only from 1989, we use data from the 1989–2020 surveys. The SHIW is usually administered every two years with the exceptions of 1998 (a three-year gap) and 2020 (a four-year gap caused by the COVID-19 pandemic). The SHIW includes a representative sample of the Italian resident population. The sample design is consistent with the Labour Force Surveys conducted by ISTAT (the Italian National Institute of Statistics).[10] Data are collected through personal interviews in the first few months of the calendar year – meaning that earnings flows and disposable income refer to the previous fiscal year (in Italy, the fiscal year and calendar year coincide). The wealth and debt variables are end-of-period values. Questions concerning the whole household are answered by the household head or the person most knowledgeable about the family's finances; wherever possible, questions on individual incomes are answered by the relevant household member. The unit of observation is the family, defined as all people living in the same dwelling who are related by blood, marriage or adoption. Individuals described as 'partners or other common-law relationships' are also treated as families.

We chose to use SHIW data rather than alternative datasets that have more detailed data on hours worked and earnings but include less information on household characteristics and incomes of household members. Also, the variables in the SHIW have been defined in the same way for over 30 years. In comparison, the INPS provides complete and reliable administrative information on earnings but no information on household composition or education, and no link to the earnings of other members of the household. Furthermore, before 2014, INPS data exclude the self-employed and public employees, who together represent more than a third of all workers in Italy (Hoffmann, Malacrino and Pistaferri, 2022).[11] Similarly, ISTAT's labour force survey provides no information on consumption or wealth, or the earnings of cohabiting household members.

When constructing the sample, rather than using a minimum earnings threshold, we defined the employment rate as the fraction of the population that is employed according to their self-reported

[8] The full dataset is publicly available (with documentation in English) at the Bank of Italy website, see https://www.bancaditalia.it/statistiche/tematiche/indagini-famiglie-imprese/bilanci-famiglie/index.html.

[9] The SHIW is harmonised with similar surveys in other euro-area countries within the ECB-sponsored Household Finance and Consumption Network (HFCN), which allows international comparisons.

[10] Sampling comprises two stages. The first stage consists of municipality selection and second household selection. Municipalities are categorised into 51 strata, defined by 17 regions and three classes for population size: over 40,000, 20,000–40,000 and less than 20,000. The sample includes all municipalities in the first class; those in the second and third classes are randomly selected with a probability proportional to their population size. In the second stage, households are randomly selected from registry office records.

[11] The INPS data used in Hoffmann et al. (2022) cover the period 1985–2016. Statistics come from a 6.6 per cent sample of the INPS universe based on workers born on 24 randomly selected birth dates. INPS data do not include public-sector jobs or self-employment, which account for 16 per cent and 20 per cent of total employment, respectively.

employment status, including self-employment. Nominal earnings are converted into real earnings for the 2015 calendar year using the CPI deflator. Hours of work are defined as the 'usual/ typical' paid hours worked per week including paid overtime, and wages are individual real net hourly wages (weekly net employee earnings divided by weekly hours worked as defined above) excluding self-employed workers. Disposable household income is the sum of three main components: net labour earnings, net public transfers (pensions and other forms of government benefits) and income from capital (real and financial assets). Household earnings and disposable income are normalised according to the modified OECD equivalence scale. Given the focus on labour supply and earnings, we exclude individuals aged under 25 or over 55; that is, we select individuals who have completed education and who are still of working age (not yet retired). The sample includes 313,257 individuals who were interviewed in 16 waves of the SHIW between 1989 and 2020.

Jappelli and Pistaferri (2010) compared SHIW income data with corresponding aggregate National Accounts data. They concluded that these two data sources are well aligned in terms of estimating growth rates but that SHIW data understate disposable income considerably. Compared to National Accounts data, SHIW slightly overestimates wages and salaries, and underestimates levels of self-employment income by 50 per cent. Similarly, SHIW estimates of pensions are a third lower than the corresponding National Accounts figures. SHIW data also grossly underestimate interest derived from financial assets. However, data on rents are generally in line with National Accounts data. Brandolini, Gambacorta and Rosolia (2018) compared SHIW and National Accounts data and concluded that the SHIW income definition is broadly comparable to that used for gross household disposable income in National Accounts. However, they found that there is less than complete alignment between the two sources, owing to methodological differences and the typical survey underestimation due to non-response and under-reporting biases. Without carrying out any adjustments to increase comparability, the SHIW income estimates are on average about two-thirds of the National Accounts aggregates.

4 | EMPLOYMENT AND EDUCATION

Figure 3 captures the overall increase in education over three decades, plotting the population from 1989 to 2020 by level of education: individuals with no high school degree (fewer than 13 years of schooling), high school graduates (13 years of schooling) and college graduates (16+ years of schooling). In the early part of the sample, 60 per cent of the Italian adult population had at best completed middle school education, 30 per cent had attended high school and only 10 per cent had a college degree. The fraction of the population with a college degree more than doubled (21.6 per cent) over the sample period, and the fraction that completed high school increased to about 40 per cent. Nevertheless, the share of college graduates is below the level in other OECD countries.

Figure 4 plots employment rates for the 25–55 age group separately for males and females. Between 1989 and 2020, the male employment rate fluctuated around 85 per cent while female employment rates increased considerably from 44 per cent in 1989 to 64 per cent in 2020, although still well below the male employment rate. Figure 5 includes the youngest and oldest population segments (age groups extended to include those aged 20–25 and those aged up to 70) and plots employment rates by age. This highlights two other Italian labour market characteristics: relatively low rates of participation among the youngest and oldest segments of the population. On average, over the entire sample period, the employment rate for those aged 20–25 is around 50 per cent, and drops sharply after age 60 when the individual becomes eligible for a generous pension. In the last decade of our sample, the ongoing retirement of cohorts affected by the 1990s pension reforms increased participation considerably, including for those aged over 60. Employment rates differ across Italy, with the male employment rate roughly 10 percentage points higher in the North than in the South of Italy and over 20 per cent higher in the case of female employment. For both men and women, education is strongly associated with employment opportunities, with rates for college graduates around 20 per cent higher than for individuals with lower levels of education. If we split the data by education and

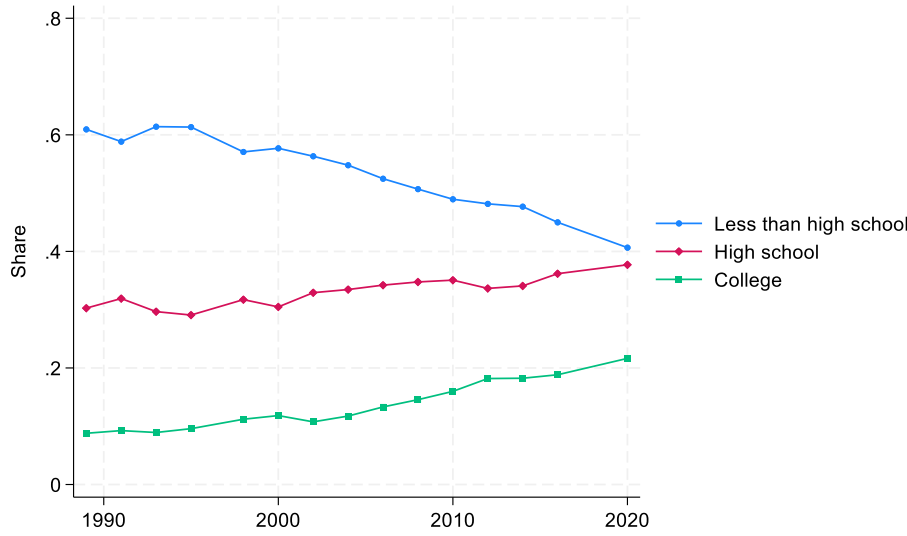

FIGURE 3 Educational attainment. *Note*: The figure plots the educational attainment of the population of individuals aged 25–55. *Source*: SHIW, 1989–2020. [Colour figure can be viewed at wileyonlinelibrary.com]

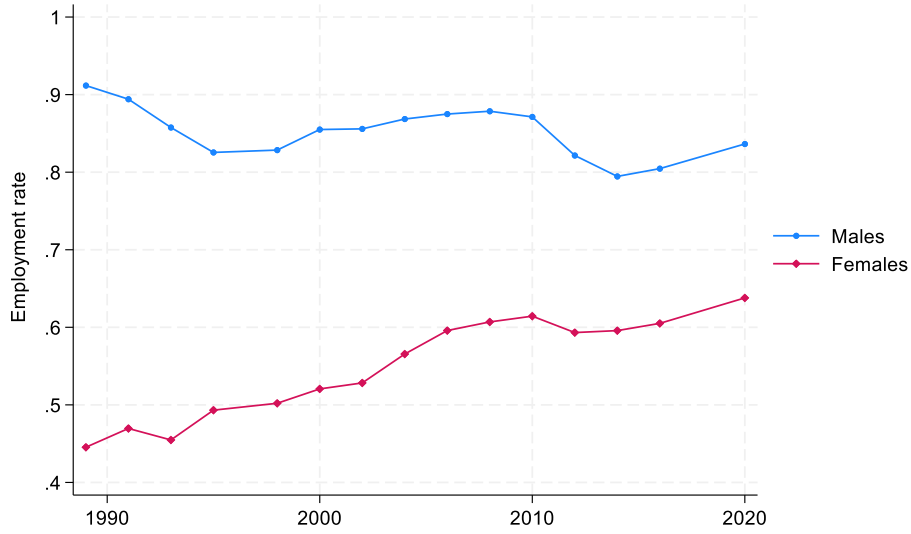

FIGURE 4 Employment rates. *Note*: The figure plots the employment rate of the population of individuals aged 25–55. *Source*: SHIW, 1989–2020. [Colour figure can be viewed at wileyonlinelibrary.com]

gender, we can see that employment rates are higher for men than for women at every education level, but the difference narrows across the education distribution (smaller gap in the case of individuals with a college degree). In sum, heterogeneity in employment rates reflects gender, age, education and geographical differences.

Figure 6 shows that the proportion of people who report being employed part-time is much higher for females, and has increased considerably over the sample period, by about 7 percentage points for males and by 25 percentage points for females. These trends can be explained by the labour market reforms described in Section 2, which eased entry to the labour market for groups with low labour

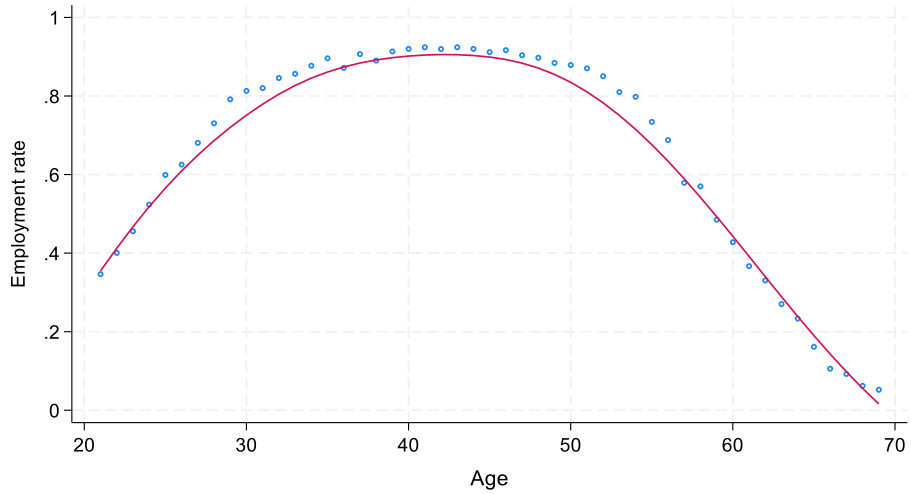

FIGURE 5 Employment rates, by age. *Note*: The figure plots the employment rate of the population of individuals from age 20 to age 70. *Source*: SHIW, 1989–2020. [Colour figure can be viewed at wileyonlinelibrary.com]

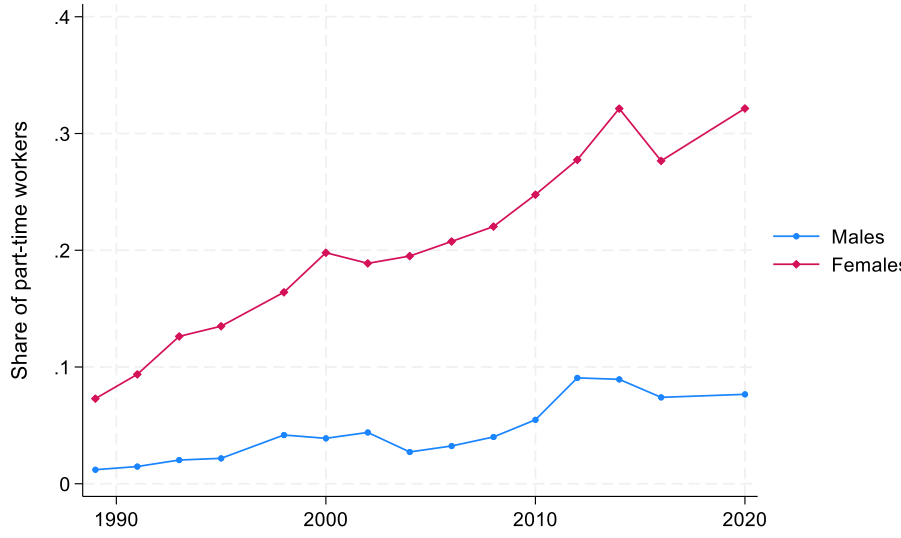

FIGURE 6 Part-time employment. *Note*: The figure plots the fraction of part-time workers in the population of individuals aged 25–55. Part-time workers are those who indicate that they work fewer hours than the standard full-time hours, which can be due to personal choice, circumstances or the nature of the job market. *Source*: SHIW, 1989–2020. [Colour figure can be viewed at wileyonlinelibrary.com]

force attachment and precarious jobs. It should be noted also that almost two-thirds of female part-time employment is involuntary.[12]

[12] Pre-2020, ISTAT data distinguished between voluntary and involuntary part-time, and underemployment (see http://dati.istat.it/Index.aspx?QueryId=56084).

5 | EARNINGS AND INCOME INEQUALITY

Because individual earnings have stagnated over the 30 years examined, household earnings increased only modestly. The overall change in the Gini index for net earnings for employees and the self-employed aged between 25 and 55 is notable and increased from 0.25 in the early 1990s to 0.32 in 2020, an increase of almost 7 Gini points (see Figure 7).

Measures frequently used to estimate labour market premia include the gender premium (ratio of male to female average wages), the education premium (ratio of average wage received by college graduates and non-graduates), the experience premium (ratio of average wage received by males aged 45–55 to males aged 25–35) and the regional premium (ratio of the average wage in some regions relative to others). In Figure 8, the SHIW data suggest no clear trend in relation to a gender premium over the sample period, with the average ranging between 3 per cent and 6 per cent in most years, with the exception of 2020 when it was 14 per cent. This large increase in 2020 shows that the impact of the COVID-19 pandemic was greater for women, who tend to have part-time employment and to be employed in more precarious jobs compared with men.

The education (college) premium is about 60 per cent across the sample, declining between 2000 and 2010 and then increasing up to 2020. It might be that the larger supply of college graduates worked to offset the increased demand, resulting in the constant education premium observable in the data. Both the experience premium and the regional premium increased across the sample. However, in both cases, these dynamics might reflect different compositional factors and correlations with other variables.

In Figure 9, we report the annualised rate of growth of wages between 1989 and 2020 by wage percentiles, showing the median wage in the same percentile for 1989 and 2020. The results are interesting. Although some people might be in a different wage distribution percentile (e.g., in the 50th percentile 1989 and in the 60th in 2020), we consider the median wage to be in the same percentile for both years and compute the percentage difference. It can be seen that the lower half of the distribution suffered a constant decline in wages, while the upper half of the distribution has experienced modest

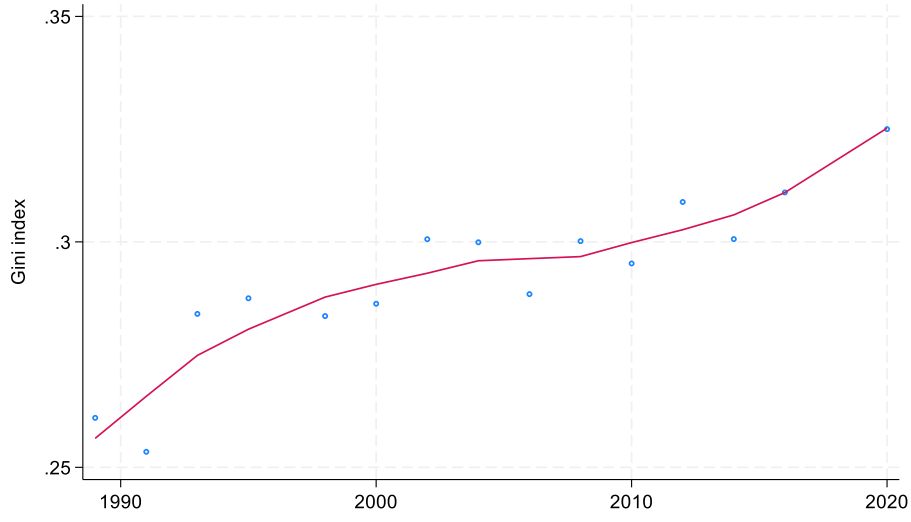

FIGURE 7 Gini index of net earnings. *Note*: The figure plots the individual Gini index of earnings net of taxes, and smoothed means of the same series. The sample includes private and public employees in the 25–55 age group. *Source*: SHIW, 1989–2020. [Colour figure can be viewed at wileyonlinelibrary.com]

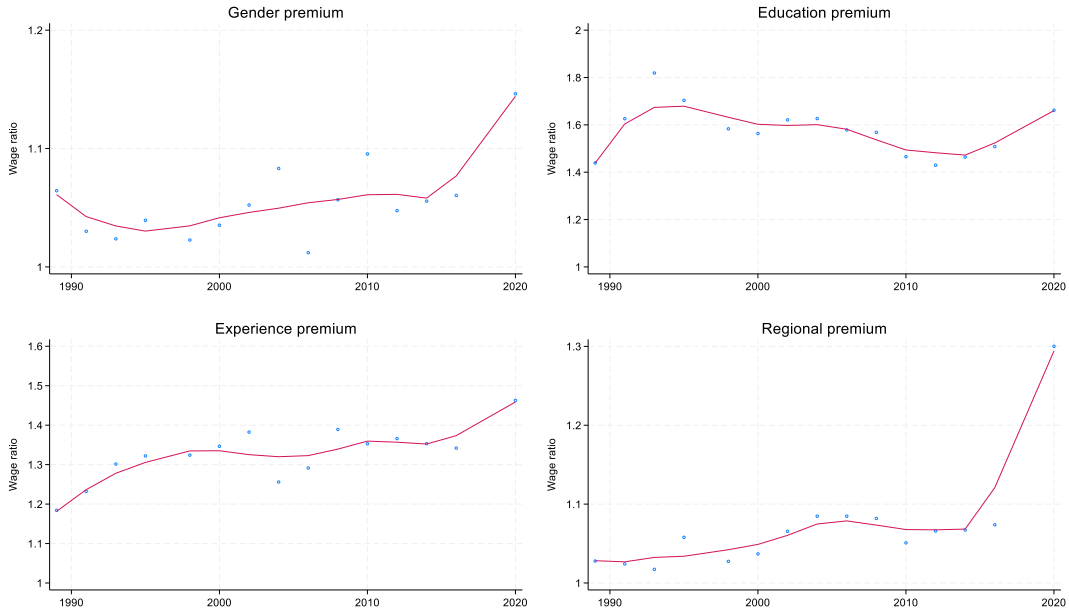

FIGURE 8 Gender, education, experience and geographical premia. *Note*: The figure plots the gender premium (ratio of male to female average wages), the education premium (ratio of college graduate average wage to non-graduate wage), the experience premium (ratio of average wage received by males aged 45–55 to males aged 25–35), and the regional premium (the ratio between the average wage received in Northern–Central regions relative to Southern regions). The sample includes working individuals aged 25–55. *Source*: SHIW, 1989–2020. [Colour figure can be viewed at wileyonlinelibrary.com]

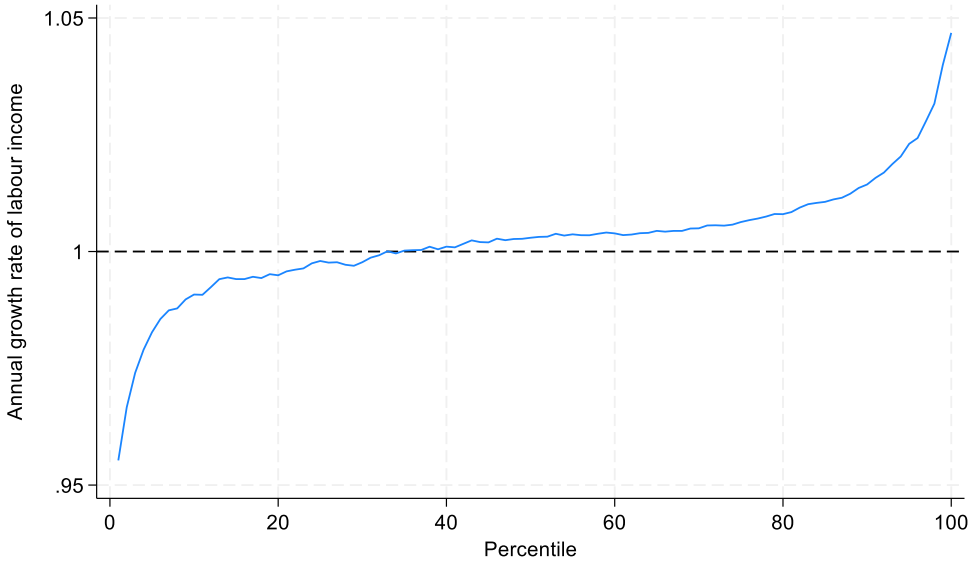

FIGURE 9 Growth incidence curve, 1989–2020. *Note*: The figure plots the ratio of the annual growth rates of earnings percentiles in 1989 and 2020. *Source*: SHIW, 1989 and 2020. [Colour figure can be viewed at wileyonlinelibrary.com]

growth but less than 0.5 per cent per year. The analysis of INPS data in Biasi and Checchi (2022) confirms this finding.[13]

Rising inequality may be caused by an increase in income differences persisting over time, or by greater income instability. An example of persistent variation is when the difference between the earnings of a college graduate and a high school graduate widens throughout their career. An example of a transitory variation is one in which the income of everyone is less stable, for example because it alternates periods of work and periods of unemployment. Jappelli and Pistaferri (2010) show that much of the increase in income variability, and therefore inequality, is due to greater income instability. They estimate a flexible income process given by a permanent and a transitory component, and conclude that the three-fold increase in the transitory component is related to labour market reforms, which increased the degree of instability of earnings and incomes.[14]

One way to check if the rise in inequality also reflects structural factors is to estimate the fixed effects of earnings in the panel component of SHIW (that is, average individual earnings). In each period, we compute a Gini index of the fixed effects. The index changes over time if average earnings of new entries differ from the average earnings of workers who retire and exit the sample. We calculate that the Gini index increases by 0.08 points between 1989 and 2020, suggesting that the increase in inequality reflects compositional changes as well. Results are similar when controlling for business cycle effects via year dummies, changes in timing of entry and exit via age effects, and hours of work (if part-time jobs become more easily available). We also find that the youngest cohorts (born after 1980) record much higher structural inequality than cohorts close to retirement (born in 1960–69).

Income inequality is also a cumulative process that begins at birth.[15] Del Boca and Rosina (2009) argue that, compared with other European countries, the inequalities between men and women in Italy are greater, and the injustices in the relationships between the generations are more significant. Territorial disparities have also widened recently. A major structural problem in Italy is the large inequality in access to childcare, particularly in the South, coupled with regional variations in education attainment and education quality, and the associated probability of dropping out of school. Italy also has the largest fraction of young people not in education, employment or training (NEET): 23.1 per cent in 2021 compared to the EU27 average of 13.1 per cent.[16] Therefore, many young workers in Italy receive non-standard labour offers and are more likely to become members of the working poor: the rate of in-work poverty is 12.3 per cent in Italy compared to the EU average of 9.6 per cent (Raitano et al., 2019). In-work poverty, combined with citizenship differences and being an immigrant, leads to geographical segregation within cities and explains why redistributive interventions such as the 2019 income guarantee for the poor (the so-called *reddito di cittadinanza* or citizens' income) could have a limited impact on reducing inequalities.

It is useful also to compare earnings inequality trends based on different data and time periods. The upper-right panel of Figure 10 plots the Gini index for private employees' gross earnings from 1989 to 2016 using INPS administrative data (rather than net earnings for employees and the self-employed).[17] For comparison, the upper-left panel plots the same Gini index for net earnings drawn from SHIW data (Figure 7).

[13] Brandolini et al. (2018, figure 8.7, p. 201) point out that this dynamic is mostly due to the 1992 recession which affected the two tails of the distribution differently, while subsequent shocks were associated with a generalised reduction of all income.

[14] Rosati (2003) comes to a similar conclusion, by exploiting the joint dynamics of income and consumption in the SHIW.

[15] See Saraceno (2022) and other contributions published in the same issue of the journal *Il Mulino*.

[16] NEET data are from Eurostat, and are available at https://ec.europa.eu/eurostat/databrowser/view/edat_lfse_20$DV_1101/default/table?lang=en.

[17] INPS administrative data do not capture the informal economy, which plays a significant role in Italy. This sector, which is characterised by unregulated and untaxed economic activities, encompasses a wide range of operations, from street vending and freelance work to unregistered small businesses and agricultural labour. ISTAT estimates that currently there are about three million irregular workers, and that the value of the informal economy is approximately constant in recent years (about 10 per cent of GDP). See https://www.istat.it/it/files/2023/10/Report-ECONOMIA-NON-OSSERVATA-2021.pdf.

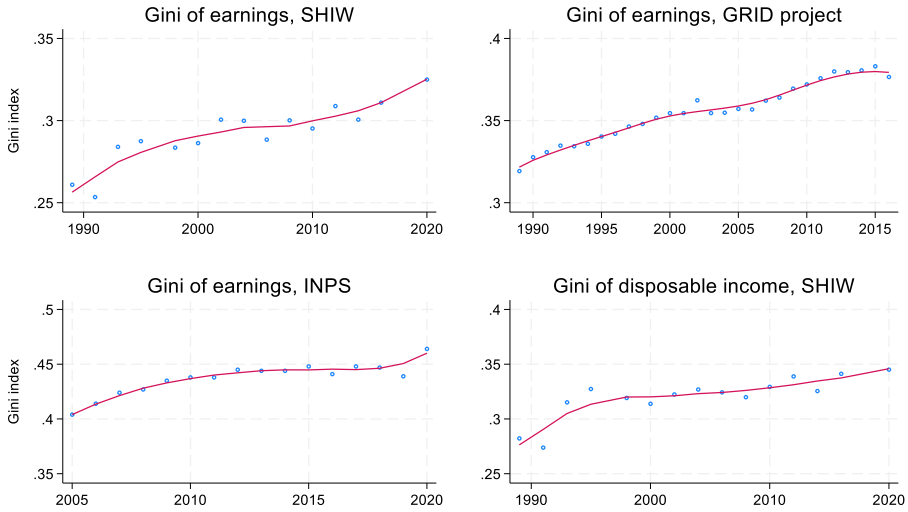

FIGURE 10 Comparison of Gini index of earnings and disposable income. *Note*: The upper-left panel plots the Gini index of earnings net of taxes, and smoothed means of the same series. The sample includes private and public employees in the 25–55 age groups. The upper-right panel plots the Gini index of earnings gross of taxes from 1989 to 2016. The sample is drawn from INPS administrative data and includes working individuals aged 25–55. The lower-left panel plots the Gini index of the gross earnings of private employees (including agricultural salaried and caregivers/cleaners) from 2005 to 2020. The lower-right figure plots the Gini index of disposable income. The sample includes households with heads in the 25–55 age group. *Source*: SHIW, 1989–2020 (upper-left and lower-right panels); GRID project, https://www.grid-database.org (upper-right panel); INPS administrative data and INPS (2022) (lower-left panel). [Colour figure can be viewed at wileyonlinelibrary.com]

The data are from the Global Repository of Income Dynamics (GRID), an open-access international database that provides micro-statistics on income inequality and income dynamics at the individual level (Guvenen et al., 2022).[18] The Italian GRID project data sample 6.6 per cent of the Italian population based on 24 randomly selected birth dates. Public-sector jobs and self-employment are excluded but account for 16 per cent and 20 per cent of total employment, respectively. Hoffmann et al. (2022) provide a summary of the evidence for Italy and suggest that in the 30 years considered in our analysis earnings inequality and earnings volatility increased for both men and women. 'The wave of labor market reforms implemented since the late 1990s is the most likely explanation for both trends. The dramatic rise in part-time and fixed-term employment increases inequality in earnings through a dramatic change in the dispersion of annual hours worked across jobs' (Hoffmann et al., 2022, p. 1666).[19]

While Hoffmann et al. (2022) consider a sample of private employees in their analysis, the 2022 INPS Annual Report includes all private employment during the period 2005–20 (INPS, 2022). The lower-left panel of Figure 10 shows that if the entire employed population is considered (including wage earners in agriculture and caregivers), the Gini index increased from 0.40 to 0.46 during the period of the pandemic. Microdata for public employees are available starting from 2014; if these are included in the sample, the Gini index increases from 0.42 in 2014 to 0.44 in 2020. The INPS report also shows that if individuals working less than four weeks per year and those in the lowest 0.5 percentile are excluded, the Gini index drops by only 0.02. If wage earners in the agriculture

[18] All the statistics in the database are computed from administrative data on earnings histories for each country and harmonised to allow comparability.

[19] Briskar et al. (2023) use INPS data and suggest that there is no distinct geographical pattern to the increase in inequality.

sector, public employees and caregivers are excluded, the Gini index still averages 0.40 for a sample of 14.3 million private-sector employees, which is in line with the estimates for the total sample.

Earnings inequality does not translate automatically into disposable income inequalities as many households include more than one individual receiving an income and other income components are included in the definition of disposable income (income from real and financial assets and from government transfers, including pensions). SHIW provides income data for every individual in the household, allowing a measure of household-level disposable income as the sum of household members' earnings, transfers, pensions, and income from capital. To examine earnings inequality, the lower-right panel of Figure 10 plots the Gini index of the disposable income for the 25–55 age group.[20] It shows, first, that disposable income inequality is of the same order of magnitude as net earnings inequality and, second, that between 1989 and 2020 disposable income inequality increased by 6 Gini points (from 0.28 in 1989 to 0.34 in 2020), related mostly to the 1992–93 recession.[21] Finally, the COVID-19 pandemic in 2020 caused an increase in inequality, as already observed in the earnings inequality dynamics.

6 | MOBILITY AND INEQUALITY

Italy is characterised by both comparatively high inequality and low intragenerational mobility. The rank–rank slope or rank–rank persistence coefficient measures the strength of the correlation between an individual's position in the initial income distribution (year t) and the same individual's position in the distribution $t + n$ periods ahead. Figure 11 plots the rank–rank correlation of disposable income over the long run (10 years apart). The 45° line indicates perfect immobility while a horizontal line would indicate that the quantile at time t does not predict the quantile $t + 10$ years later.[22] This is just one of many ways to show lack of mobility.[23]

Limited intragenerational mobility goes hand in hand with low intergenerational mobility. Checchi, Ichino and Rustichini (1999) document the degree of persistence in education attainment, while Acciari, Polo and Violante (2022) estimate intergenerational income mobility in Italy using administrative data from tax returns. Their estimates of mobility are higher than those in prior work using survey data and indirect methods. In particular, the rank–rank slope of parent–child income is 0.22, compared to 0.18 in Denmark and 0.34 in the United States. However, the sample used by Acciari et al. also includes young people at the early stage of their career.

In a study measuring inequality of opportunities (i.e., the share of inequality due to circumstances that do not change over time, such as gender, age, parental background and place of birth), Bussolo, Checchi and Peragine (2023) found that this began to reduce in the early 2000s compared with the 1990s. Overall, Italy does not show significant improvement over time: the value of inequality of opportunities is the same at the start and end of the period. A suggested interpretation is that the educational system and the labour market are working in opposite directions: educational opportunities have widened, thus contributing to reducing inequalities. Conversely, possibly due to the reduced signalling value of education, employers put more weight on family background when hiring among applicants.

[20] The findings are similar if we use an equivalised measure of disposable income based on the OECD equivalence scale. The scale is defined as $E = 1 + 0.5 \times$ (number of children) $+ 0.7 \times$ (number of adult members $- 1$). A child is any household member aged under 17.

[21] Our graph differs slightly from figure 8.6 of Brandolini et al. (2018) because focusing on the working-age population reduces the equalising effect of pensions paid to retired household members. Also, our sample captures the increase in inequality after the 2008 financial crisis and the sovereign debt crisis, whereas the sample used by Brandolini et al. ends in 2014.

[22] In the short run (two-year interval) the slope is 0.77, and in the long run the slope is still 0.62.

[23] Subioli and Raitano (2022) produce similar graphs using SILC 2014–17 and showing reduced mobility among younger cohorts.

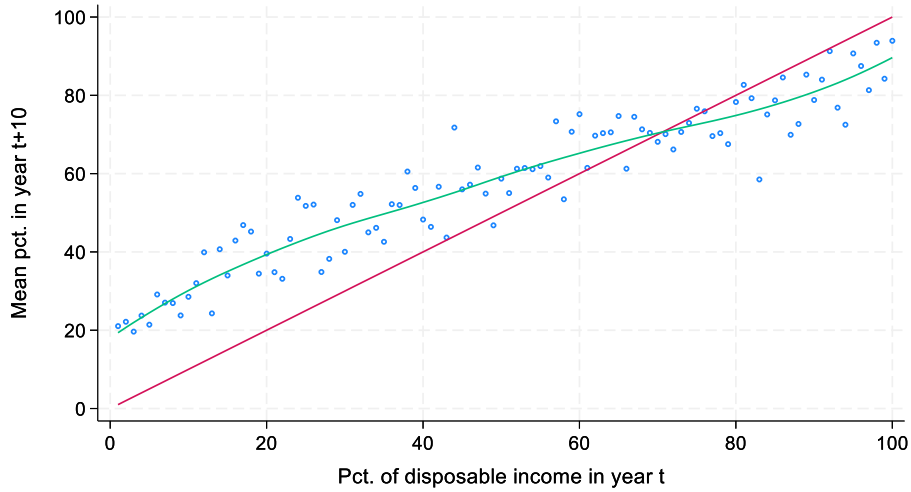

FIGURE 11 Mobility of disposable income. *Note*: The figure plots the rank–rank slope measuring the association between the rank in the disposable income distribution in period t, and the rank of the mean disposable income in year $t + 10$. The sample uses SHIW panel data from 1989 to 2020, with the requirement that households must be interviewed for at least ten consecutive years (because the survey is biannual, this requires at least five interviews). [Colour figure can be viewed at wileyonlinelibrary.com]

7 | SUMMARY

We have reviewed trends related to inequality in Italy, one of the most unequal countries among OECD countries. Over the 30 years from 1989 to 2020, Italy experienced four recessions related to four different shocks: debt stabilisation following the Maastricht treaty; the 2008 global financial crisis; the sovereign debt crisis; and the COVID-19 pandemic. Each of these recessions was followed by a limited recovery, resulting overall in a period of stagnant growth, reflected by lack of productivity growth and stagnant real wages.

Over the period analysed, the country experienced increased labour market participation as the result of more flexible labour market regulation and fragmentation of working hours. The recessions that occurred between 2000 and 2010 were related to a geographical divide which persisted over the period of analysis. Because overall demand for labour did not increase, fragmentation of work opportunities increased the share of working poor.

Despite income immobility, the labour income share experienced significant redistribution. Increased participation in education promoted increased labour market participation especially among females, although at the end of the sample period the employment rate gender gap remained at 20 percentage points. The increase in labour market participation was accompanied by an increase in part-time jobs – either working fewer hours per week or working fewer months per year.

Bank of Italy biannual SHIW data show that net earnings inequality among the working-age population measured by the Gini index has grown from 0.25 in 1989 to 0.32 in 2020. We also observe a rising trend in the dynamics of the Gini index of working households' disposable income (from 0.28 to 0.34), though this is attenuated across the entire population due to the role played by pensions. An analysis of gross earnings for the entire employed population based on administrative INPS data shows similar trends but at higher levels (the Gini index increases from 0.40 in 2005 to 0.46 in 2020). An analysis by group (gender, education, geographical divide) mostly shows no clear-cut trends along any of these dimensions with the exception of a generalised upward turn during the pandemic.

When decomposing income dynamics by income position, we see that in the period analysed the bottom half of the distribution experienced a significant decline in real earnings, while the top half of

the distribution experienced modest growth of less than 0.5 per cent per year. The increasing earnings polarisation is consistent with limited intra-generational mobility demonstrated by the rank–rank correlation observed for the panel component of the SHIW. Research using administrative and survey data show that much of the increase in income inequality and volatility was due to the labour market reforms implemented since the late 1990s. Overall, the high and rising inequality among earnings and income observed in Italy appears to be a structural phenomenon that is likely to persist in future years, unless stronger redistributive policies are implemented and/or GDP growth resumes at significant rates.

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DATA AVAILABILITY STATEMENT

Most of the data used in this article are drawn from the Survey on Household Income and Wealth, which is publicly available on the Bank of Italy website (https://www.bancaditalia.it/pubblicazioni/indagine-famiglie/index.html?com.dotmarketing.htmlpage.language=1).

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