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Inequality in Portugal: 1986-2020



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1. Executive summary

Employment, wages, hours and individual earnings

Since the 1990s, the employment rate among prime-aged men (aged 25–60) has been stationary at around 90%, while female employment has seen sustained growth, from 66% in 1992 to 82% in 2020, leading to a long-term reduction in the employment gender gap. The economic catastrophe that was the Great Recession, however, brought about a very sharp decline in employment across the board, which took as long as a decade to recover from – the unemployment rate reached 17% at its peak. The drop in employment was greater for the less educated but, while a college degree granted near-immunity to job loss in previous economic crises, higher-educated individuals were almost as exposed as other workers during the Great Recession.

This was also a result of the significant development of schooling since the 2000s – the school leaving age was raised, with a strong expansion of upper secondary (ISCED 3–5), as well as higher education (ISCED 6–8). This upsurge in education levels was compensated by a sharp decline in the share of prime-aged individuals with lower secondary education or less (ISCED 0–2), from 81% in 1992 to 44% in 2020. The trends have been similar for men and women, although the share of college-educated women has risen faster than the share of men – by 2020 there was a 10 percentage point gender gap in higher education attainment rates.

When Portugal was first hit by the COVID-19 pandemic in 2020, both employment and unemployment were rather unaffected, largely due to job retention policies implemented by the Portuguese government. Official numbers show that it remained that way over 2021 and 2022.

The Portuguese median real hourly wage grew steadily during the late 1980s and 1990s, rose at a slower rate until 2009, and suffered a significant drop during the Great Recession – only recovering to pre-crisis levels in the late 2010s. Between 1986 and 2019, it grew at an average of less than 1% a year, mainly due to the prolonged wage stagnation of the first two decades of the twenty-first century. That stagnation has been much more pronounced for men, leading to a substantial reduction of the gender wage gap, from 35% to 20% over three decades. After entering the European Union in 1986, there was high demand for and short supply of skilled workers in Portugal, leading to a very significant rise in the wages of more educated workers. But those gains started to recede as more and more workers obtained better qualifications – the median wage among higher-educated men saw a 50% real rise between 1986 and 1995, which had fully disappeared by 2015. Average hours worked among employees declined from 43 hours per week in 1988 to 39 hours in 1999 due to working week reforms in 1991 and 1996, especially in the lower half of the wage distribution, and have suffered almost no change since then.

Wage inequality since 1986 can be clearly split into three periods. During the late 1980s and early 1990s wage inequality increased sharply, mostly at the top of the distribution: while workers at the bottom saw their wages grow by little more than 1% a year, workers at the top – the more educated – experienced growth rates of 5% a year. Between the mid-1990s and the mid-2000s, inequality remained high. From the mid-2000s, it started to rapidly fall, and that was mainly due to a compression of the distribution at the bottom – wages of workers at the bottom grew at around 2% a year, while workers at the top saw no wage growth at all. Furthermore, women's wages have also been growing faster than men's since the mid-1990s.

Regarding all workers' incomes, there has been a general stagnation in the median annual income since 1990, which has been fluctuating between €9,000 and €10,000 per year. Alongside this, there has been a sharp reduction in the gender earnings gap – while women used to earn nearly half of what men earned in 1990, they now make 85 cents for each euro a man makes – as well as a sharp drop in the college premium. Earnings inequality has fared similarly to wage inequality, rising in the early 1990s, staying high until the mid-2000s, and falling since then. During the 1990s women experienced significant earnings growth across the distribution, while only the men at the very top saw any real growth. On the other hand, between 2004 and 2019 there was a very large decrease in inequality for both men and women, with individuals in the bottom decile enjoying income growth of the order of 5% a year, while those at the top of the distribution actually saw their earnings decrease. By 2004, the lower half of the income distribution was already very concentrated – the median income was twice the income of someone at the 10th percentile – but the rising minimum wage was able to narrow it further, with the median income being just 58% above the income at the 10th percentile by 2019. The 90:10 ratio fell from 5 in 2004 to 3.3 in 2019.

Labour market institutions

In symmetry to wage inequality, the bite of the minimum wage presented a U-shaped trajectory between 1986 and 2019. Its importance in the labour market declined strongly during the 1980s and 1990s, was generally stagnant until the mid-2000s, but has been rising fast since 2006 – by 2019, the minimum wage exceeded 60% of the median. Union density, however, which displayed rates above 70% after the democratic revolution of 1974, later fell to remarkably low levels, to just 15% in 2016. That decline has been attributed to the consistently high levels of collective contract coverage.

The Portuguese tax and benefits system has become more prominent in the wake of the Great Recession. Benefits as a proportion of gross income increased significantly in the lower half of the distribution as unemployment rose and many families had to resort to state benefits. Direct taxes as a share of gross income also increased during the crisis, but primarily at the top of the distribution. As the economy recovered, the reliance on benefits decreased, but direct taxes remained higher, leading to a gradual compression of disposable income as a share of gross income, with the most significant contraction observed at the top of the distribution.

Household incomes

Marriage/cohabitation rates have declined since the 1990s, from 80% to 70%. This was first driven by individuals with medium to high levels of education, and later by the less educated. Between 1990 and 2014, the likelihood of men being married or cohabitating decreased significantly, especially for non-working men, although the likelihood of men having a partner who works increased significantly. For women, however, marriage/cohabitation rates remained stable at around 70%. Still, a clear gender difference has persisted: while the likelihood of being in a couple is uncorrelated to income for women, high-earning men have a much higher likelihood of being in a couple than lower-earning men. Moreover, the position of a married/cohabiting person in the income distribution is almost directly proportional to their partner's position, and that has not changed through the years. The combined impact of these phenomena is to push up inequality in household earnings. Looking at family structure more broadly, the share of single adults increased by 9 percentage points between 1990 and 2014, compensated by an identical

decline in the share of adults in couples, and this occurred mostly among men, particularly the higher educated – single parenthood rates increased from 3% to 6%.

Median gross household earnings for working households have displayed a positive trend in recent years, rising from €11,200 to €12,800 a year between 2007 and 2019. The trend in disposable household income was similar (rising from €9,300 to €10,400), but smoother during the Great Recession, as the tax and benefits system smoothed out economic shocks. However, there was a very different behaviour in the upper and lower half of the household income distribution – households in the lower half of the distribution saw an annualised growth rate of 1% in gross and disposable income between 2007 and 2019, but growth was even smaller for households in the upper half – the top 20% of households have actually seen a real decline in their disposable income since 2007.

When considering all households, the median real disposable income of households has risen by about 2% a year over the last three decades, driven by lower-educated households – while lower-educated households saw a steady increase in their real income, from €4,400 to €7,800 a year between 1990 and 2019, households with at least one member with a college degree had, in 2019, a median income that was just 6% higher than in 1990. Household income inequality was generally increasing between 1990 and the mid-2000s, and has been decreasing since then, especially during the Great Recession. While inequality at the top of the household income distribution reflects that pattern, inequality at the bottom has been more stable over time, with a slightly decreasing trend. Generally, the Great Recession was a turning point for household income inequality in Portugal. After more than a decade of rising income inequality, especially at the top, the severe compression of incomes in the upper half of the distribution caused inequality not just to drop sharply, but to reverse its decade-long trend.

Immigration

Portugal retains a relatively low number of immigrants compared to other European nations, though there has been a slight increase from 8% to 11% of the adult population over the last decade. This immigrant demographic is predominantly composed of individuals coming from other European countries, from Portuguese-speaking African countries, and from Brazil. In terms of income distribution, immigrants are fairly evenly spread, with a more notable presence in the higher income brackets, likely due to the arrival of affluent, older individuals from central and northern Europe. In comparison to native Portuguese, immigrants generally show similar characteristics, with the notable exception of higher-education attainment, where migrants tend to have higher levels of education.

2. Institutional background

Portugal is a relatively small nation on the European periphery with a population of 10.6 million and a GDP per capita of around €24,000. Its economy is comparable in size to those of Greece and Czechia, and more closely aligned in structure to southern European countries, with shared challenges in terms of fiscal sustainability, low productivity and innovation levels, and an ageing population. The country's low wage level makes it competitive on labour costs in comparison to other western European countries, and its strategic location serves as a gateway to the Atlantic, crucial for trade relations and tourism. The services sector accounts for over two-thirds of GDP, and tourism alone has accounted for up to 20% in recent years.

Emerging from a protectionist economic model under the *Estado Novo* regime, Portugal's journey towards economic liberalisation commenced after the 1974 revolution, transitioning towards a more diversified and service-oriented economy, particularly after joining the European Community in 1986. The late twentieth century brought about rapid economic growth, but the new millennium has posed several challenges for the Portuguese economy, the culmination of which was the catastrophic Great Recession. The introduction of the euro in 2002 marked a significant era, albeit leading to a debt-fuelled domestic demand boom, followed by a period of protracted growth and escalating debt until global economic crises pushed Portugal into a severe recession. The subsequent recovery since around 2016 has been characterised by improved fiscal deficits, reduced unemployment, and greater GDP growth. Like other southern European countries, the COVID pandemic led to a significant economic contraction, driven by the strong reliance on tourism, but from which the country recovered relatively quickly.

Welfare state

Portugal has developed a welfare state model closely aligned with the southern European welfare regime, but its expansion started relatively late due to prolonged dictatorial governance (*Estado Novo*). After the 1974 Carnation Revolution, Portugal began a journey to construct its welfare state, providing a blend of social insurance and social assistance schemes.

The social security system is based on contributions from employees, employers and the self-employed (as of today the contribution rate for employees stands at 11% of gross wages, while employers contribute 23.75% and the self-employed contribute at varying rates depending on their income and activities). It covers sickness, maternity, paternity, adoption, unemployment, occupational diseases, disability, old age and death. Most benefits are proportional to one's contribution record, barring a few non-contributory benefits aimed at supporting citizens with no contributory record and whose household income is below the established poverty line. Social security is crucial in the Portuguese welfare model and compares more closely to Italy and Spain than to the more universal models of Nordic countries and the UK.

Regarding social protection, Portugal offers a family allowance (*Abono de Família*) to families with children and young people, with the amount varying depending on the child's age and the family's income. This is somewhat similar to the UK's Child Benefit but is means-tested. Additionally, there are benefits for single-parent families and for families with multiple children. The important *Rendimento Social de Inserção* (Social Insertion Income) is a means-tested minimum income scheme aiming to support individuals and families in severe economic need.

Beneficiaries receive a monthly cash benefit and must participate in activation measures such as vocational training, community work, and job searches. State benefits are generally not taxable.

Unemployment protection in Portugal consists of unemployment insurance (for those who have contributed to social security) and unemployment assistance (for those with exhausted rights or those ineligible for unemployment insurance). Unemployment benefits are tied to one's earnings and contribution record. To qualify, one must have made contributions for at least 360 days in the 24 months before becoming unemployed. The amount received is based on the average earnings over the last 12 months, with benefits starting at 65% of the reference earnings and gradually reducing over time. This is somewhat more generous than the UK system but less so than countries like France and Germany. The maximum duration for unemployment benefits ranges from 180 days for those under 30 to 900 days for those over 40. The replacement rate is relatively high in the first few months but decreases thereafter.

Similarly to other southern European countries, Portugal has a pay-as-you-go pension system. The Portuguese system calculates pensions based on the individual's contribution record and earnings. Reforms in the 2000s introduced a sustainability factor that links life expectancy to retirement age, which currently stands close to 66 years but is reviewed periodically. To receive a full pension, a person must contribute for at least 40 years. Those with fewer contributions receive proportionally less. Additionally, private pension schemes have been growing, but the majority of the population still relies primarily on the state pension system. Outside of pensions, in recent decades Portugal has seen an increasing focus on providing support for the elderly and those with disabilities. There is the *Complemento Solidário para Idosos* (Solidarity Allowance for the Elderly) for low-income elderly individuals. For those with disabilities, there is the *Prestação Social para a Inclusão* (Social Benefit for Inclusion), which aims to promote autonomy and social inclusion.

Portugal's healthcare system is a mix of both public and private provisions. The National Health Service (*Serviço Nacional de Saúde*, SNS) is the backbone of the public health system, providing comprehensive healthcare services to residents. Funded predominantly through general taxation, the SNS offers a broad range of services either free of charge or at subsidised rates, ensuring universal access to essential health services. Despite its inclusivity, some services under the SNS do have co-payments, although these can be waived for specific vulnerable groups, such as low-income individuals, the elderly, or children. In addition to the public system, there are also private healthcare providers and insurance schemes available, offering a variety of services and facilities. Challenges remain, particularly in ensuring an even distribution of healthcare resources across urban and rural areas.

Education system

The Portuguese education system is segmented into pre-primary, basic (primary and lower secondary), upper secondary, and higher education and comprises 12 years of compulsory education, aligning with other European countries. Basic education is compulsory and lasts for 9 years; it is further divided into three cycles, each with distinct curricular specifications. Upper secondary education in Portugal is multifaceted, allowing students to choose between the general track, which prepares them for higher education, or the vocational track, offering specialised training. Higher education in Portugal is offered by both public and private institutions and includes polytechnic education and universities. Polytechnic institutions tend to be more practice-oriented, providing undergraduate and master's courses, while universities offer a

broader range of degrees, including doctorates. Portugal is part of the Bologna Process, ensuring standardisation and recognition of its degrees across Europe, and university admissions rely on national examination scores and high school grades.

Educational reforms over the past few decades have significantly impacted the Portuguese education system. The mandatory schooling period was extended to 12 years, and there has been a concerted effort to reduce early school leaving rates, which have historically been high in comparison to other EU countries. These efforts have been extremely successful, with more young people completing upper secondary education. There has also been a sharp rise in higher education attainment.

Tax system

Taxes are generally perceived to be quite high in Portugal, and top rates tend to be at the higher end of the spectrum among Western countries. The top marginal personal income tax rate reaches 53% when we account for the mandatory solidarity contribution for higher incomes, the corporate income tax rate can reach 31.5%, one of the highest rates on business profits in Europe, and the standard value-added tax (VAT) rate of 23% is also above the OECD average. However, average tax rates are not as high as top rates would appear to indicate and, in the end, the tax-to-GDP ratio in Portugal of around 35% (2021) is very close to the OECD average.

Aside from the VAT, the two main state revenue sources are social security and the personal income tax (PIT). As explained, social security is funded by contributions from employees, employers and the self-employed. The PIT is a progressive tax, with rates ranging from 14.5% to 53% in 2023, applied to income sources including employment, self-employment, rental and other passive incomes, as well as capital gains (although capital income is subject to a flat rate of 28%). A major source of contention, however, is the non-habitual resident regime, which allows individuals who have not been tax residents in Portugal for the previous 5 years to pay a flat tax rate of 20% on all their income for 10 years. There are also property taxes, administered at the municipality level, which tax real estate ownership and transactions, although at relatively low rates.

Labour market institutions

In Portugal, the national minimum wage is legislated at the national level and has been updated on 1 January almost every year since its initiation in 1974. It covers virtually all workers in the country – the few exceptions, such as youth and agricultural minimum wages, have tended to disappear over time. In 2023, the national minimum wage was €760 per month. The Portuguese labour code states that the minimum wage 'shall be determined [by the government] after consultation with the Standing Commission for Social Concertation', and that 'in the determination of the minimum monthly salary, the needs of the workers, the increase in the cost of living and the evolution of productivity shall be taken into consideration, among other factors', meaning that, at least partially, it is the result of a tripartite negotiation between the government, employer's associations and unions.

Collective bargaining in Portugal follows the Continental European tradition of sectoral bargaining, where firms or employer associations negotiate with unions to establish collective bargaining agreements (CBAs). These agreements set out a grid of wage floors by occupational category among other terms and conditions. The main type of CBA in Portugal is the *Contrato*

Colectivo de Trabalho, negotiated between one or more employers' associations and one or more unions, which is often extended to the entire workforce by the Ministry of Employment through a near-automatic extension mechanism, irrespective of the workers' union membership. Despite the relatively low levels of union membership, most employees have historically been covered by CBAs, leading to approximately 30,000 occupation-specific minimum wages, which are usually updated annually.

Employment protection legislation in Portugal is structured by a mix of international conventions, local law, notably the Labour Code, CBAs, and established labour practices. Many international organisations have historically put Portugal at the top of their strictness of employment legislation rankings, although that has largely changed since the significant reforms to labour law included in bailout negotiations with the Troika during the Great Recession. Either way, the Portuguese labour market has generally had a relatively high degree of flexibility, especially due to the prevalence of temporary contracts.

COVID economic policy response

Portugal organised a broad policy approach to mitigate the economic impact of the COVID pandemic, initiating several measures in 2020 to maintain income flow for workers and provide liquidity to businesses. These measures saw extensions or reintroductions in early 2021 and summer 2021, amidst a second national lockdown and a fourth pandemic wave, respectively. While direct aid in the form of subsidies or tax cuts was employed less than by other European countries, a significant portion of policy support was routed through guarantees and moratoria. Job retention was prioritised, with schemes such as the simplified lay-off, which covered 100% of lost earnings of affected workers up to three times the minimum wage, as well as benefits for self-employed and informal workers. Liquidity sustenance measures such as moratoria on bank loan repayments and interest-free credit for rent payments were instituted to cushion firms and households. Furthermore, large sums were allocated for state-guaranteed credit lines, alongside capital injections for private entities such as the national airline. The tax domain saw extensions to deadline payments and VAT relief in certain sectors.

3. Notes on measurement and definitions

Unit of analysis and sample:

- The sample is individuals aged between 25 and 60 inclusive, except where otherwise indicated. For figures on wages and earnings, the sample is further restricted to individuals (or households where applicable) with strictly positive wages or earnings, respectively.
- Individuals are the unit of analysis throughout. For example, for equivalised household income, each individual is allocated their respective equivalised household income, so that income is counted as many times as there are individuals aged 25–60 in the household.
- In the figure where we winsorise (Figure 40), we allocate all observations above the 99th percentile the amount equal to the 99th percentile. Otherwise, distributions are not trimmed.

Outcome definitions:

- **Employment rate:** the fraction of the population that is employed according to self-reported employment status. The data come from the Labour Force Survey.
- **Earnings:** gross annual real individual earnings (includes self-employed), among those who are employed and have strictly positive real earnings.
 - The data come from the Survey on Income and Living Conditions, available for the period 2004–19, or from the Household Budget Survey, available for selected years between 1990 and 2014, depending on the figure. Survey on Income and Living Conditions data are generally of better quality, but the Household Budget Survey covers a longer period so, in some instances, data from the two surveys may be combined.
 - If an employee has multiple jobs, earnings from all jobs are summed together.
 - Most figures include employee taxes but not employer taxes, pension contributions or other contributions. A few figures explicitly compare trends in gross earnings with and without employer taxes.
 - The period to which earnings data refers will vary across countries. In Portugal, the data on employee and self-employed earnings are obtained by asking respondents the amount they were paid over the reference year.
 - Nominal earnings are converted into real terms in calendar year 2019 or financial year 2019–20 prices, using the Consumer Prices Index.
- **Hours of work:** usual/ typical paid hours worked per week, among those who are employed and have strictly positive real earnings. Excludes self-employed workers. The data come from the administrative personnel records.

- **Wages:** individual real gross hourly wages (monthly gross employee earnings divided by monthly hours worked as defined above). Excludes self-employed workers. We convert nominal wages into real terms in calendar year 2019 or financial year 2019–20 prices, using the CPI.
- **Disposable household income (household equivalised income after deducting taxes and adding benefits and tax credits):**
 - The main measure of household income used in this report is income after direct taxes and transfers have been deducted from or added to household income.
 - Income includes: usual earnings from employment, profit or loss from self-employment, state support (all benefits and tax credits), income from occupational and private pensions, investment and rental income, maintenance payments, income from educational grants and scholarships, and cash value of forms of income in kind.
 - Income is net of: tax payments on income or property, social insurance contributions, and regular inter-household cash transfers paid.
 - Incomes are equivalised using the modified OECD equivalence scale, normalised to a single individual.

Splits:

- **Sex:** female, male
- **Education:** We split education levels into three groups, based on qualifications, which map onto three International Standard Classification of Education (ISCED) groups as follows:

Qualification obtained	ISCED	Group
Up to lower secondary education	ISCED 0–2	Low
Up to short-cycle tertiary education	ISCED 3–5	Medium
Above bachelor's degree or equivalent	ISCED 6–8	High

- **Household type:** Single without dependent children; single with dependent children; couples without dependent children; couples with dependent children; other. Adult children go in the 'other' category. A dependent child is a child aged 0–17.

4. Individual employment and earnings

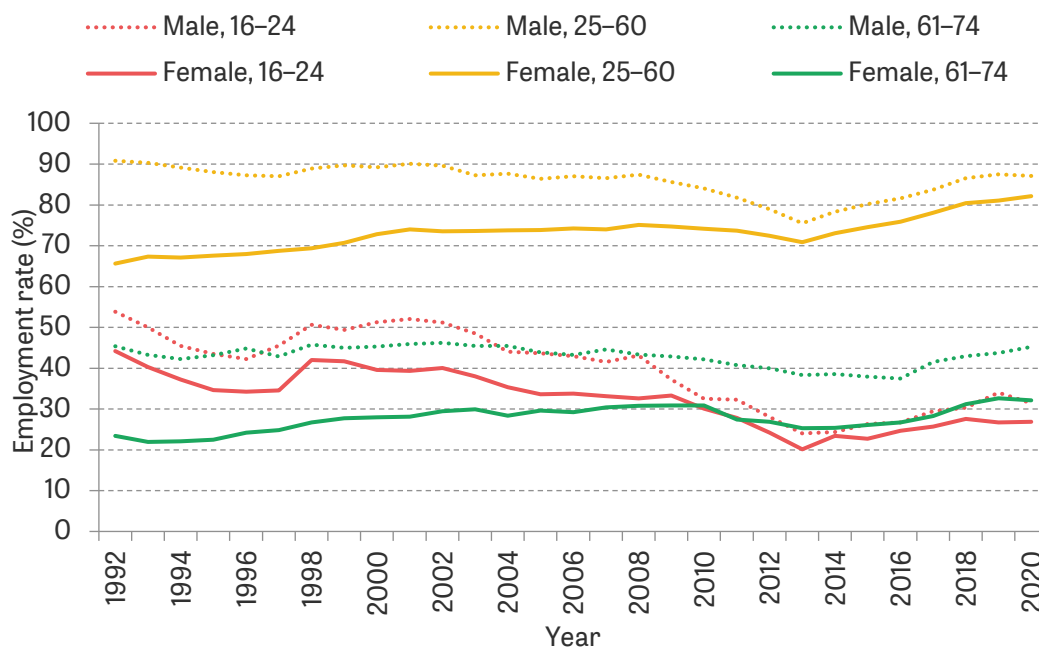
This section looks at trends in individual employment and earnings. With respect to earnings, we first look separately at hourly wages and hours worked, before bringing them together in a set of charts on earnings inequality. Due to a lack of reliable data on hours worked for the self-employed in Portugal, we restrict the analysis of wages and hours to employees but include both employees and the self-employed in the analysis on total earnings. Finally, we look separately at self-employed individuals.

4.1 Trends in employment

Figure 1 shows that since 1992, Portugal has seen sustained growth in the employment rate of prime-aged (25–60-year-old) women, from 66% to 82% in 2020, and a rate anchored at around 90% for prime-aged men such that, by 2020, the prime-age employment rate gender gap had reduced to 5%, from 25% in 1992. During the period of the Great Recession, there was a very sharp decline in employment rates across the board, which took as long as a decade to recover from (e.g., for prime-aged males, employment fell by 12 percentage points between 2008 and 2013, only recovering to pre-crisis levels in 2019). The dynamics was very similar for older workers (aged 61–74), at lower levels, although female employment did not increase as much.

Employment rates among young people (16–24) have declined for both men and women since 1992, due to exceptional progress in schooling levels, from increases in the school leaving age to the expansion of higher education. Either way, youth employment has remained very low throughout time, when compared to prime-age employment or other countries, suffering an even more severe shock during the Great Recession (a decline of 18 percentage points for young males and 10 percentage points for young females).

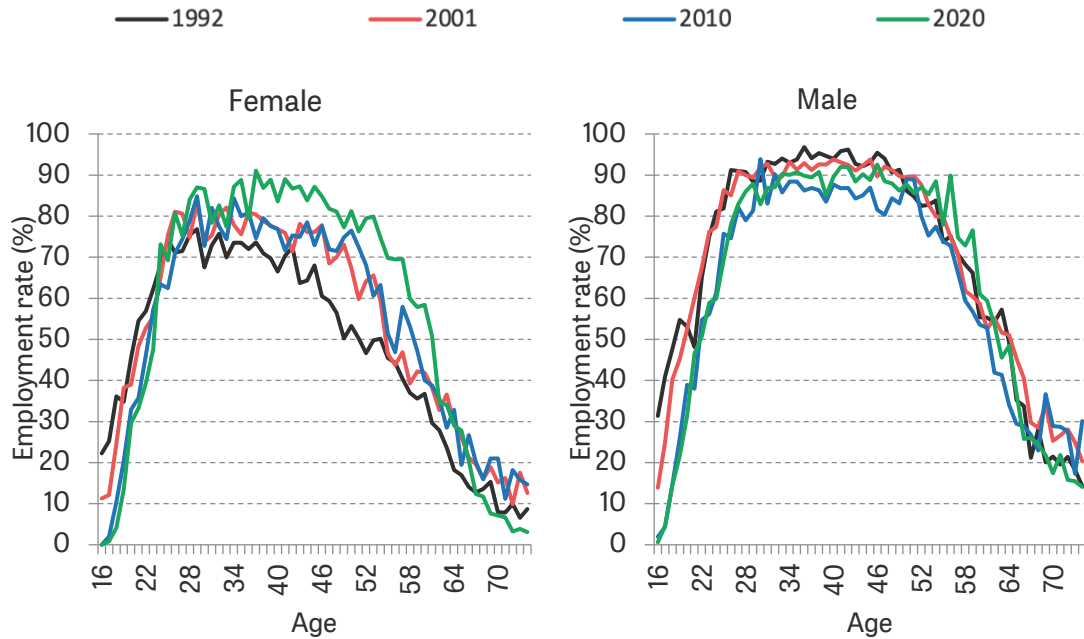
Figure 1. Employment rates by age and sex, over time



Source: Portuguese Labour Force Survey.

Figure 2 shows the decline in youth employment across the years, for both men and women, due to the increase in the school leaving age and levels of education. It also illustrates the sharp rise in employment of prime-aged women over time. On the other hand, for men above 25 there was no significant change in employment rates over the years, with the exception of 2010, when employment was at its lowest due to the financial crisis.

Figure 2. Employment rates over life cycle by sex, selected years

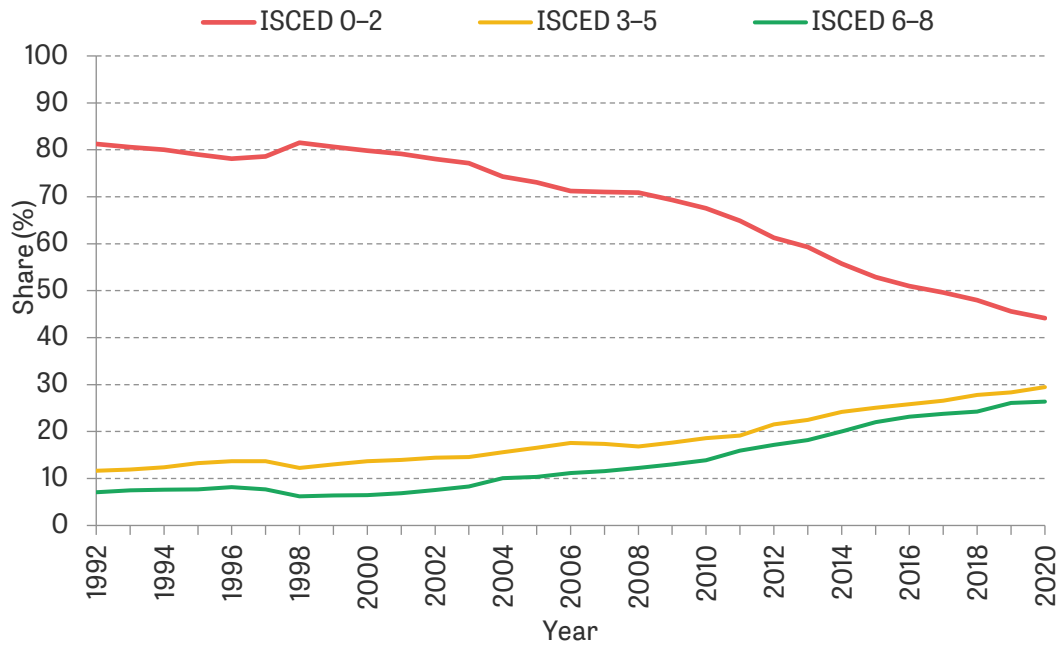


Source: Portuguese Labour Force Survey.

We now focus on individuals in their prime working years (aged 25–60). Since the 2000s, there has been a significant development of education in Portugal. The school leaving age was raised to 18 in 2009, with a strong expansion of upper secondary as well as higher education (a rise of around 20 percentage points in the share of individuals with each of those levels of education). This upsurge in schooling was compensated by a sharp decline in share of individuals with lower secondary education or less, from 81% in 1992 to 44% in 2020 (Figure 3).

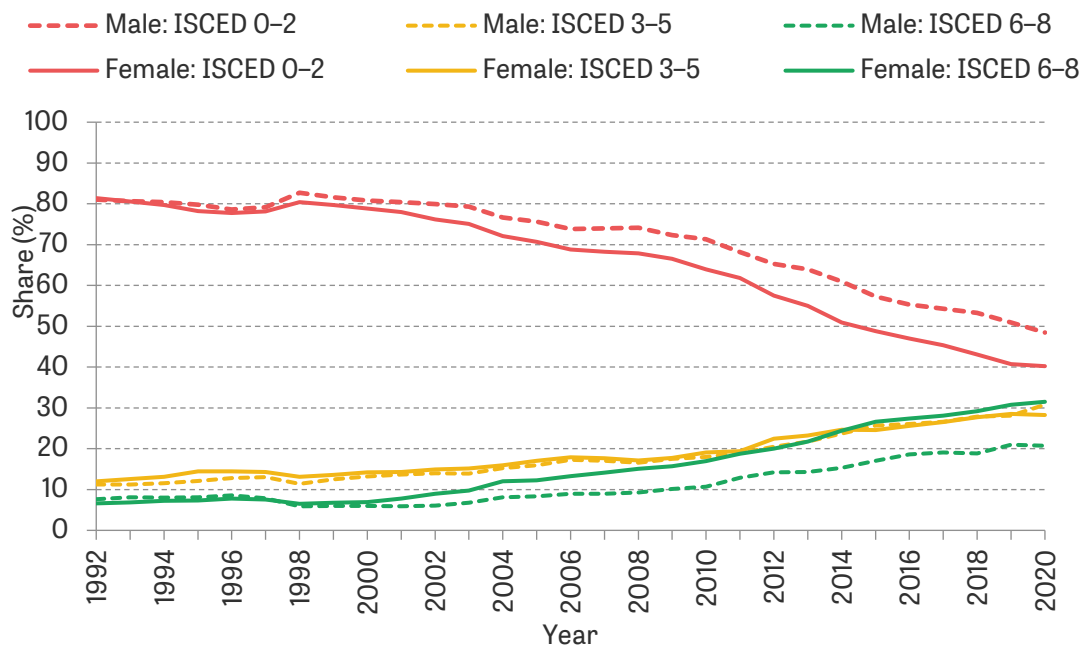
These trends have been similar for both men and women (Figure 4), although the share of women with higher education has risen significantly more than the share of men, compensated by the decline in the share of women with lower secondary education or less. While in 1992 there was virtually no gender difference in schooling, in 2020 there was a 10 percentage point gap in higher education attainment rates between women and men.

Figure 3. Educational attainment over time



Note: Sample is individuals aged 25–60.
Source: Portuguese Labour Force Survey.

Figure 4. Educational attainment by sex, over time



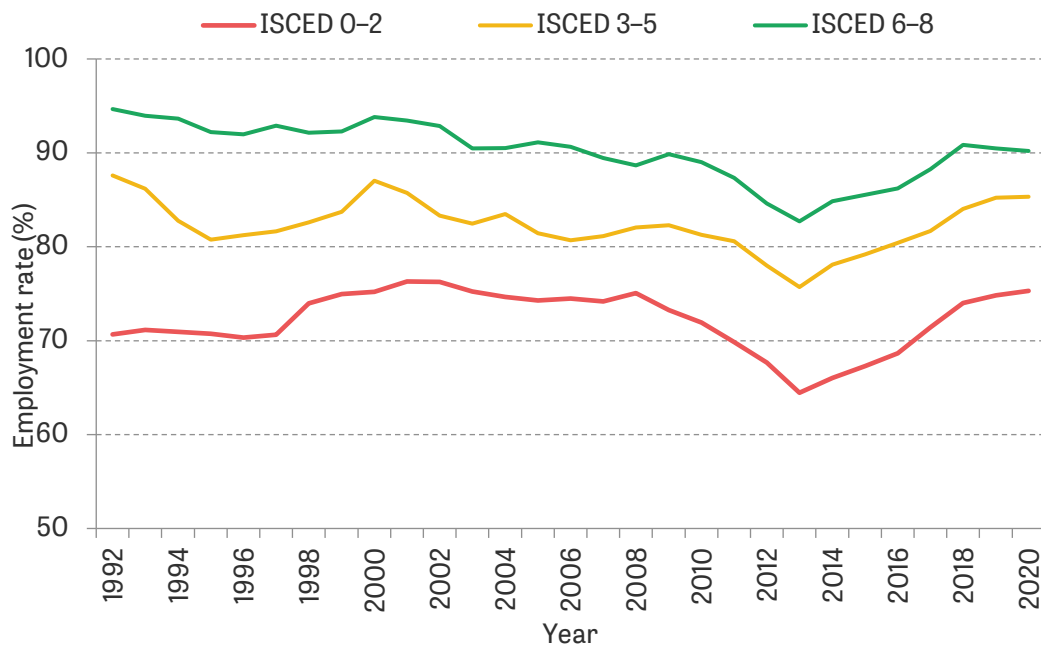
Note: Sample is individuals aged 25–60.
Source: Portuguese Labour Force Survey.

Figure 5 shows how trends in employment have differed by educational background. After recovering from a recession in the early 1990s, employment rates were stable across education levels, although slightly decreasing over time. Again, that is with the exception of the Great Recession period, which affected employment across the board, but the less educated most

severely. It is also worth noting that, while a college degree granted near-immunity from the economic crisis in the 1990s, during the 2008 financial crisis higher-educated individuals, now rather greater in number than before, were almost as vulnerable as anyone else.

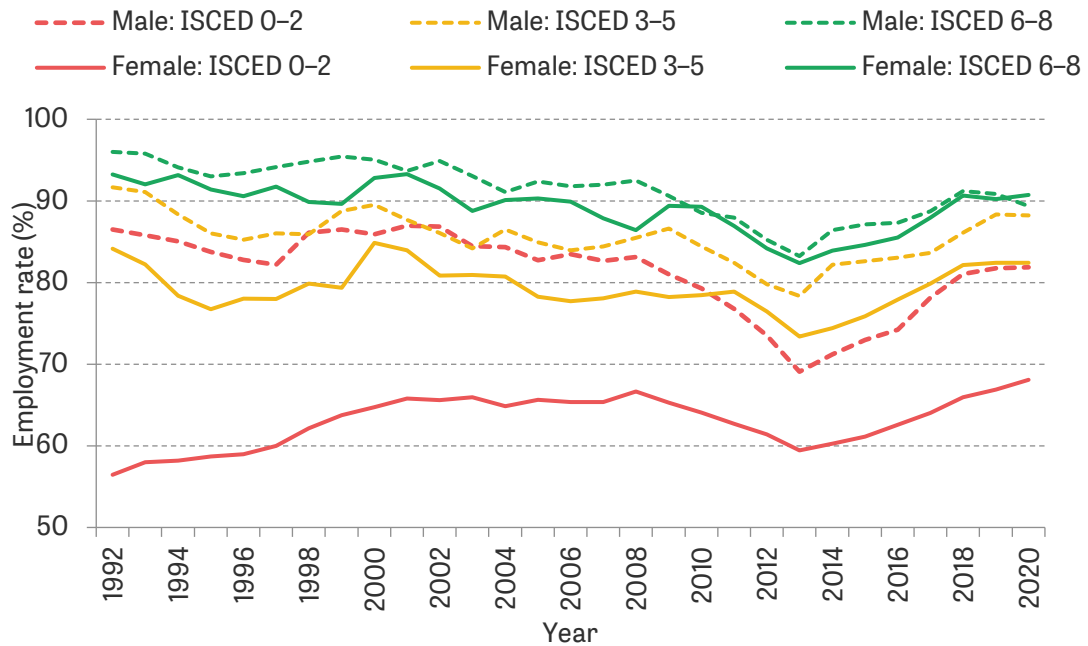
Out of all gender-education groups, women with lower secondary education or less were by far the most disenfranchised, with an employment rate of 56% in 1992, while all other groups were above 80% that year (Figure 6). However, that was also the only group with positive growth between 1992 and 2020, reaching 68% in the latter year. On the other hand, uneducated men were the most affected by the financial crisis, with a drop in employment of 14 percentage points from which they had still not recovered in 2020.

Figure 5. Employment rates by education, over time



Note: Sample is individuals aged 25–60.
 Source: Portuguese Labour Force Survey.

Figure 6. Employment rates by sex and education, over time



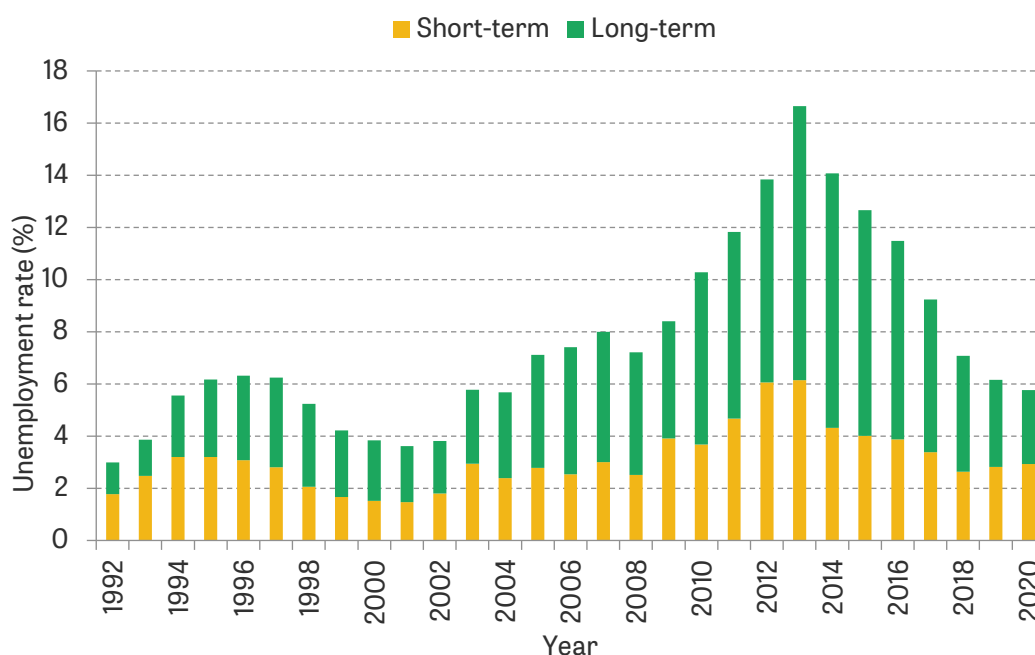
Note: Sample is individuals aged 25–60.

Source: Portuguese Labour Force Survey.

Between the 1990s and the mid-2000s, the unemployment rate in Portugal fluctuated with the business cycle at relatively low levels, around 4–6%. However, the economic catastrophe that was the Great Recession caused an unprecedented surge in unemployment to all-time-record numbers. The unemployment rate reached 17% in 2013 (Figure 7), at the peak of the crisis, only recovering to its pre-crisis levels a decade after its beginning. The share of unemployed that are considered long-term has been generally high over the years, around 50–60% and reaching as high as 70% during the crisis.¹

¹ For more on the particularities of the Portuguese unemployment rate, see Blanchard and Jimeno (1995) or Blanchard and Portugal (2001).

Figure 7. Unemployment rate by duration of unemployment over time



Note: Sample is individuals aged 25–60. Unemployment rate is calculated as the fraction of the labour force aged 25–60, split between short-term (less than 1 year) and long-term (more than 1 year) duration of unemployment.

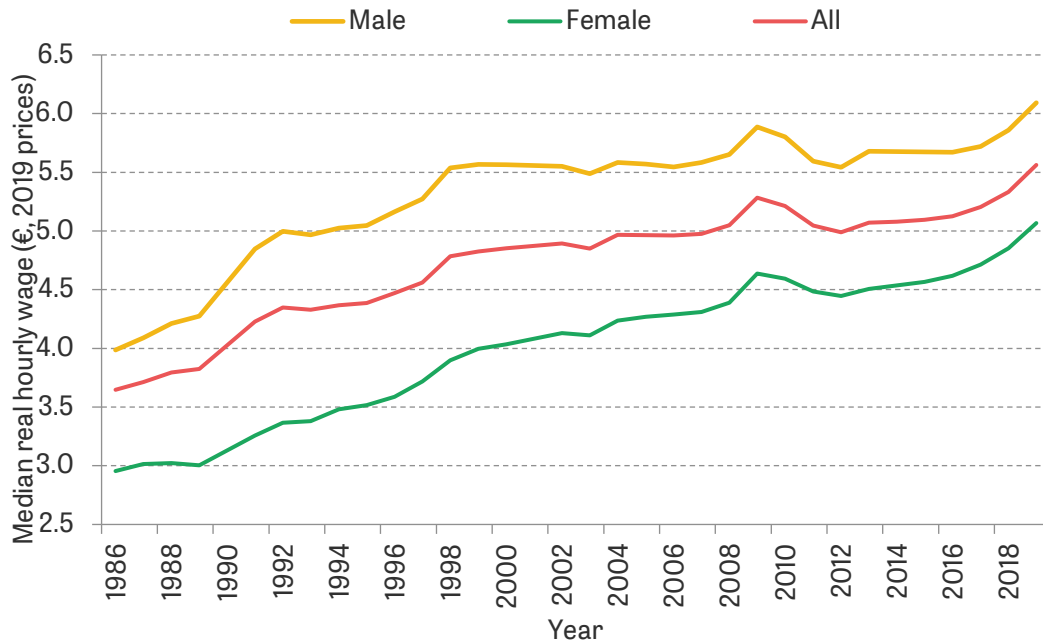
Source: Portuguese Labour Force Survey.

4.2 Trends in hourly wages (employees only)

Real median hourly wages grew steadily during the late 1980s and 1990s, rose at a slower rate until 2009 – especially for men – and suffered a significant drop during the Great Recession, which took long to recover from – growth only picked up again in the late 2010s (Figure 8). Overall, the median hourly wage in Portugal grew by just 50% in real terms over 33 years, especially due to the prolonged wage stagnation of the first two decades of the twenty-first century. That stagnation, however, was much more pronounced for men, as was the impact of the Great Recession, leading to a substantial reduction of the gender wage gap, from 35% to 20%.

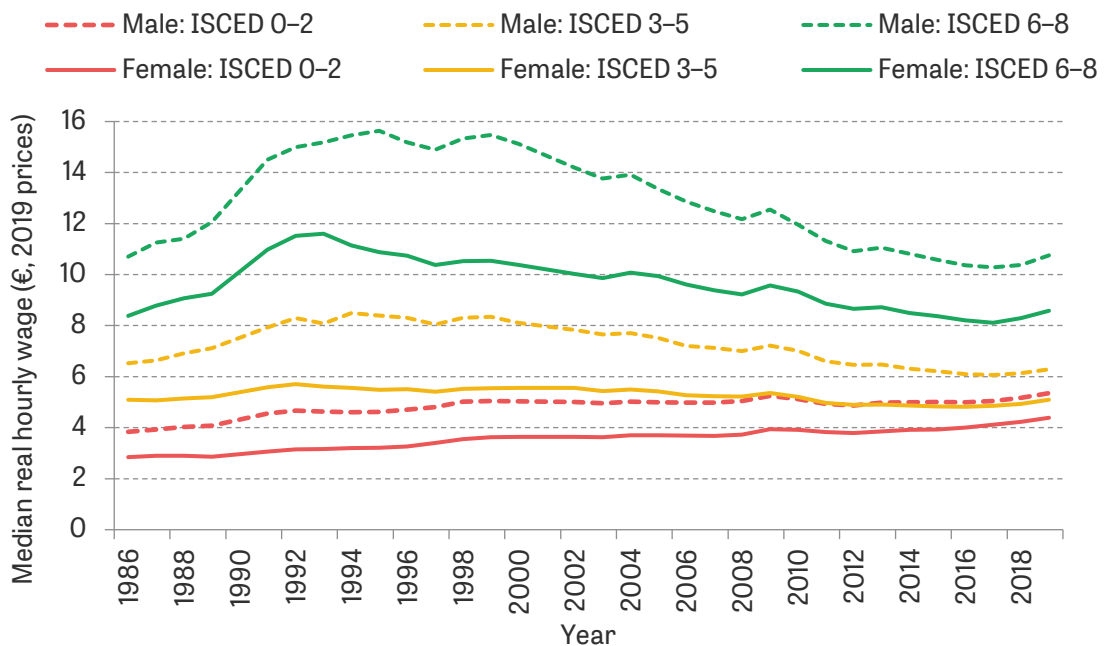
Still, this masks significant heterogeneity across gender-education groups (Figure 9). During the 1980s and 1990s the strong demand and short supply of skilled workers led to a very significant rise in the wages of higher-educated workers (ISCED 6–8), as well as males with upper secondary education (ISCED 3–5). But as more and more workers achieved greater qualifications, together with a stagnating economy, those gains started to recede. The wages of higher-educated men, in particular, saw a 50% real rise between 1986 and 1995, which was fully reversed by 2015. At the opposite end of the spectrum, the wages of uneducated (ISCED 0–2) females experienced consistent growth across the years.

Figure 8. Median real hourly wage among employees, overall and by sex, over time



Note: Sample is employees aged 25–60 with strictly positive wages. Wages are in 2019 prices.
Source: Personnel Records.

Figure 9. Median real hourly wage among employees, by sex and education, over time

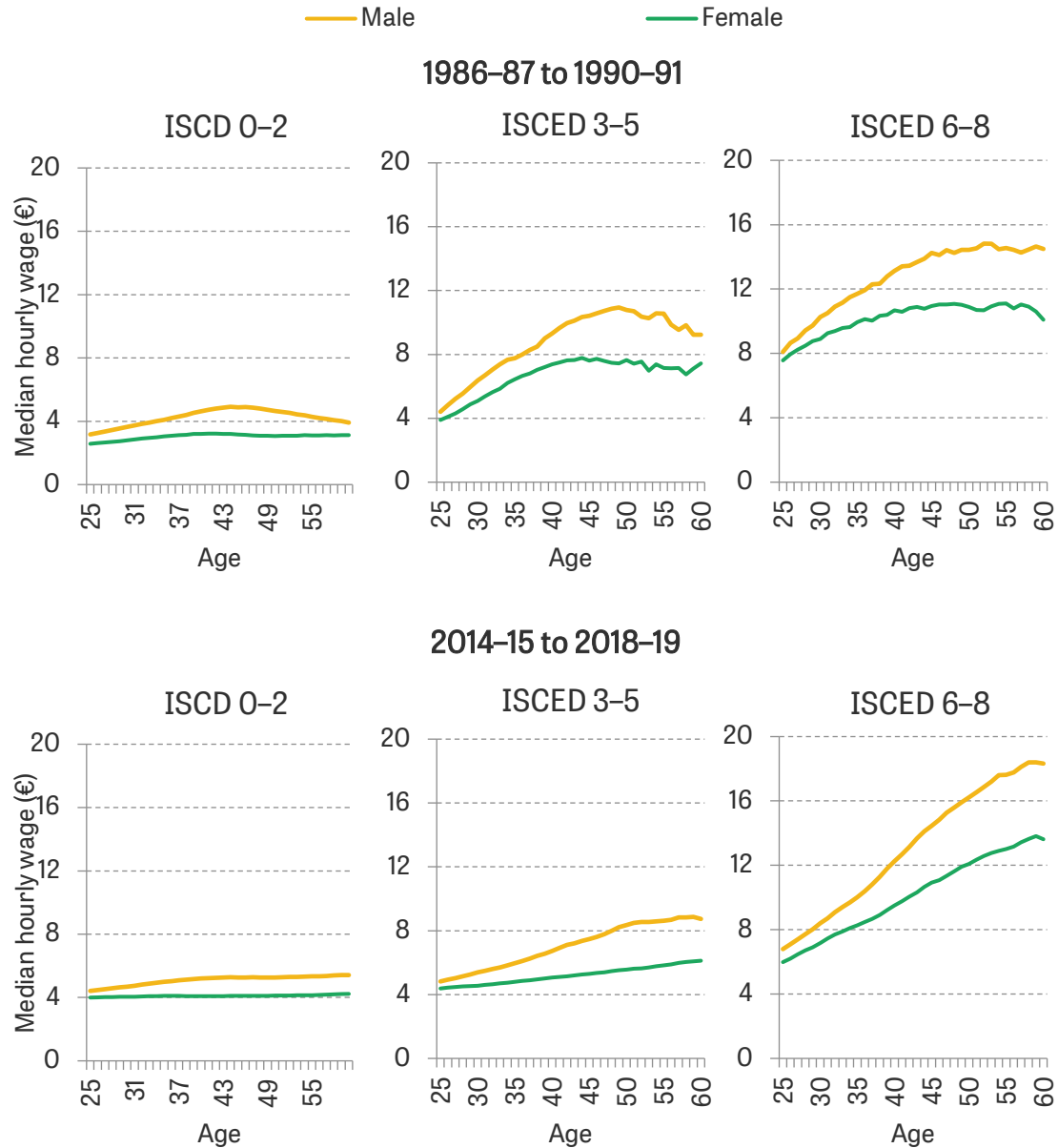


Note: Sample is employees aged 25–60 with strictly positive wages education. Wages are in 2019 prices.
Source: Personnel Records.

Figure 10 shows median wages over the life cycle by sex and education, for different time periods. Those with lower levels of education see a flatter wage profile over the life cycle, while individuals with higher levels of education experience faster growth over the years. However, while wages peaked at around 45 years of age during the late 1980s and early 1990s – for all levels of

education – in recent years wages have demonstrated continuous growth across the life cycle. While the gender wage gap is trivial at the beginning of individuals' careers, growth is much more significant for men than for women.

Figure 10. Median real hourly wage among employees over lifecycle, by sex and education



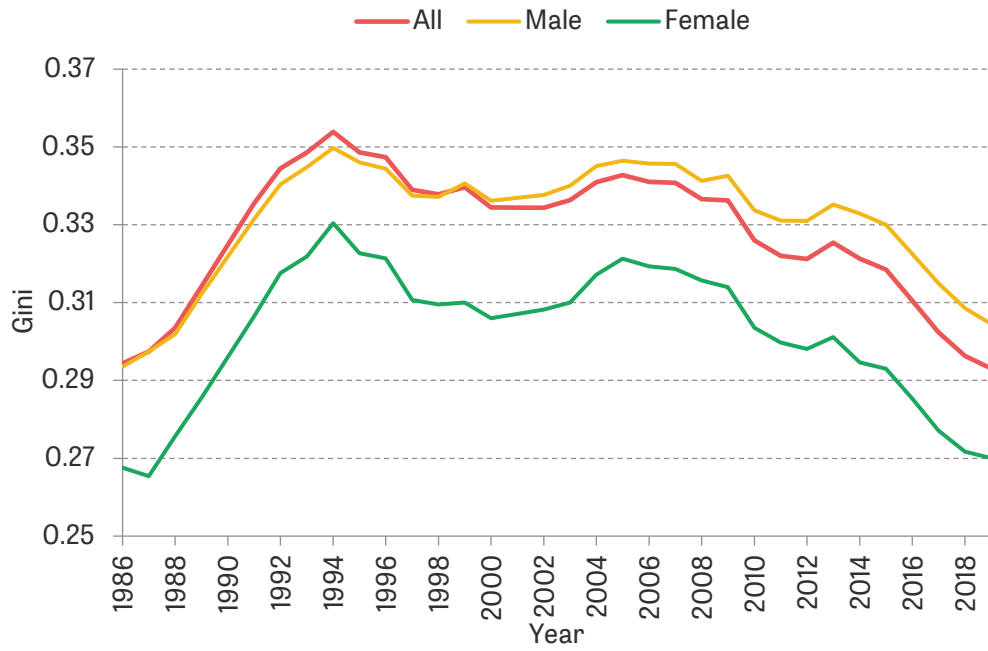
Note: Sample is individuals with strictly positive wages. Wages are shown in 2019 constant-wage terms. Five-year smoothing across ages has been applied.

Source: Personnel Records.

Figures 11 and 12 plot trends in wage inequality using the Gini coefficient, the 90:10 ratio and the 50:10 ratio. Wage inequality in Portugal can be very clearly split into three periods: during the late 1980s and early 1990s wage inequality increased sharply, mostly at the top of the distribution; between the mid-1990s and the mid-2000s, inequality stagnated at the top, with slight fluctuations; and from the mid-2000s, inequality started to rapidly fall, mainly due to a

compression of the distribution at the bottom. The dynamics was similar across genders, although inequality among females had been consistently lower than among males.²

Figure 11. Gini coefficient of hourly wages among employees, overall and by sex, over time

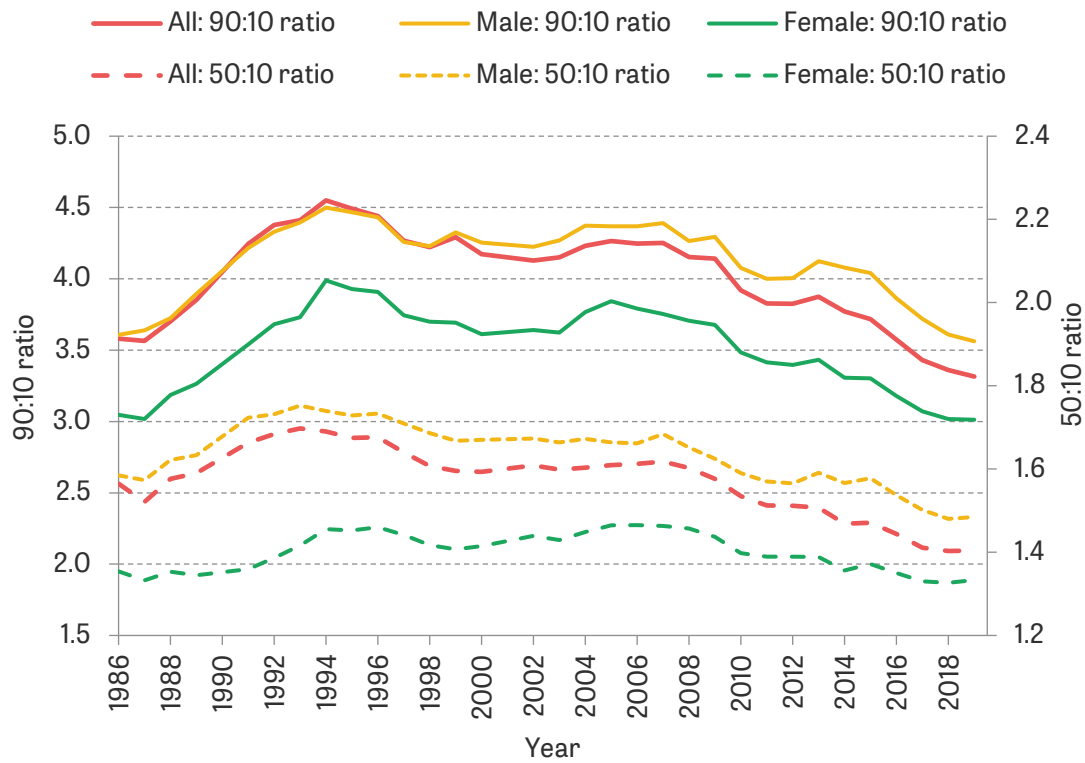


Note: Sample is employees aged 25–60 with strictly positive hourly wages.

Source: Personnel Records.

² The historical path of income and wage inequality in Portugal is analysed in detail in Oliveira (2023b).

Figure 12. 90:10 and 50:10 ratios of hourly wages among employees, overall and by sex, over time

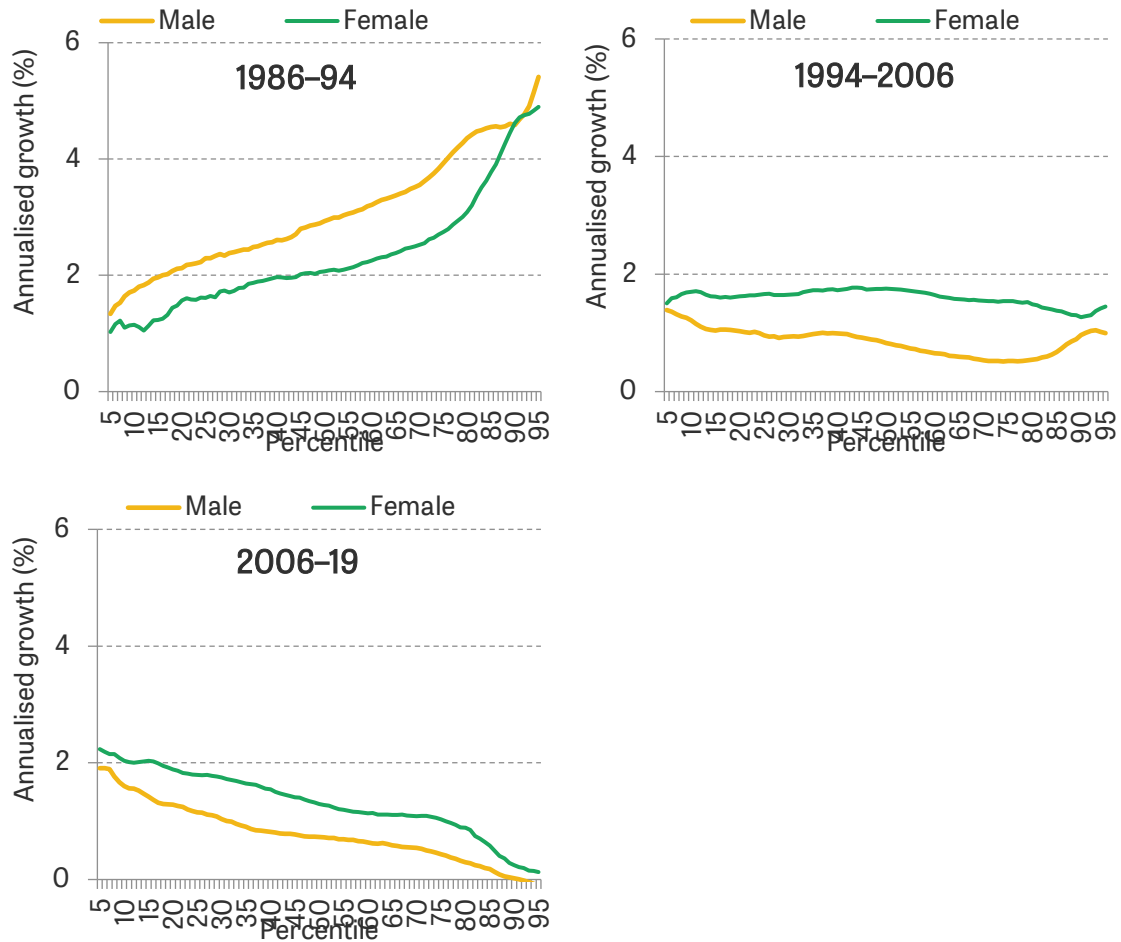


Note: Sample is employees aged 25–60 with strictly positive hourly wages.

Source: Personnel Records.

Figure 13 looks in more detail at changes in hourly wages across the wage distribution. The period between 1986 and 1994 was one of sharply rising inequality. While workers at the bottom of the distribution saw their wages grow by little more than 1% a year, the higher up they were in the distribution, the greater was their wage growth, with workers at the top experiencing growth rates of 5% a year. Wages also grew faster for men than for women. Between 1994 and 2006 wages were nearly stagnant with annualised growth rates of around 1.5% for women and 1% for men, marginally decreasing across the distribution. While average wage growth was still very low after 2006, mainly because of the Great Recession, between that year and 2019 there was a sharp reduction in inequality as the wages of workers at the bottom grew at around 2% a year, while workers at the top experienced no wage growth at all. Since 1994, women’s wages have also been growing faster than men’s wages.

Figure 13. Annualised growth in hourly wages among employees by wage percentile, overall and by sex, selected periods



Note: Sample is employees aged 25–60 with strictly positive hourly wages.

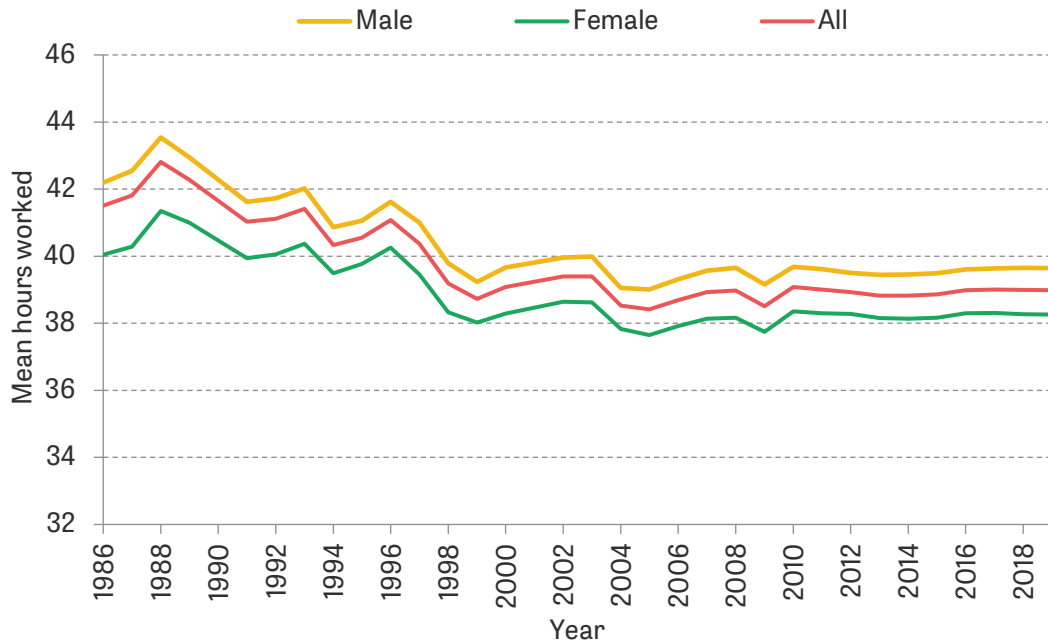
Source: Personnel Records.

4.3 Trends in hours worked (employees only)

Figure 14 shows that average hours worked among employees decreased until 1999, especially due to the working week reforms of 1991 (from 48 to 44 hours) and 1996 (from 44 to 40 hours), and have remained very stable since then, at around 39 hours per week.³ However, if we look at different gender-education groups (Figure 15), we see that there was significant growth in hours worked for higher-educated women, which was roughly compensated by the decrease in hours of less-educated men.

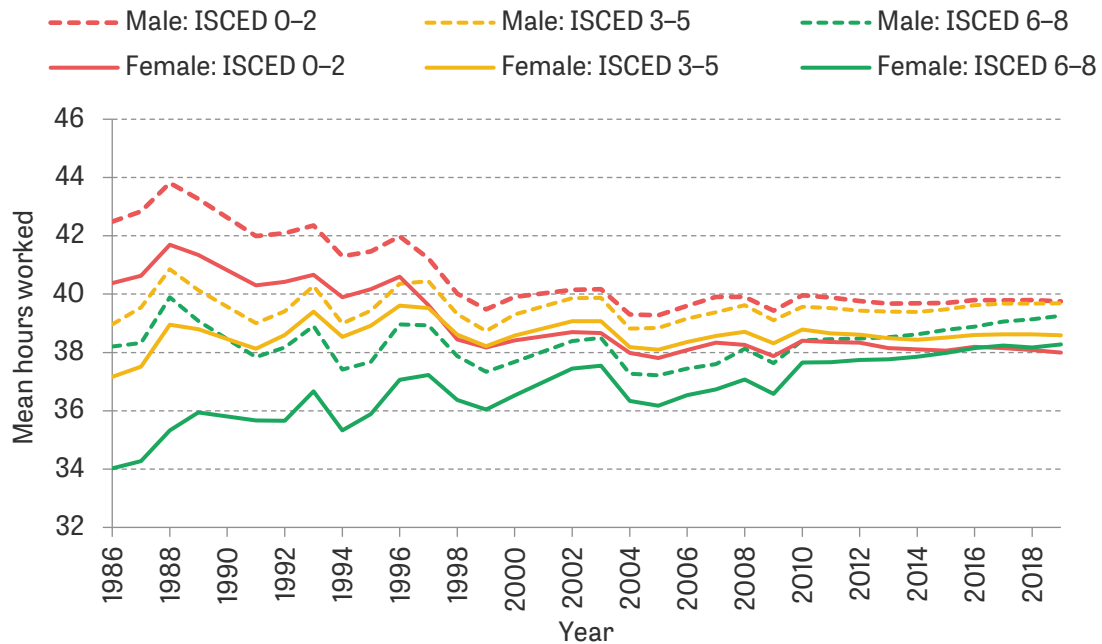
³ For more on the working week reform, see Raposo and van Ours (2010) or Asai, Lopes and Tondini (2023).

Figure 14. Mean hours worked among employees, overall and by sex, over time



Note: Sample is employees aged 25–60.
Source: Personnel Records.

Figure 15. Mean hours worked among employees, by sex and education, over time

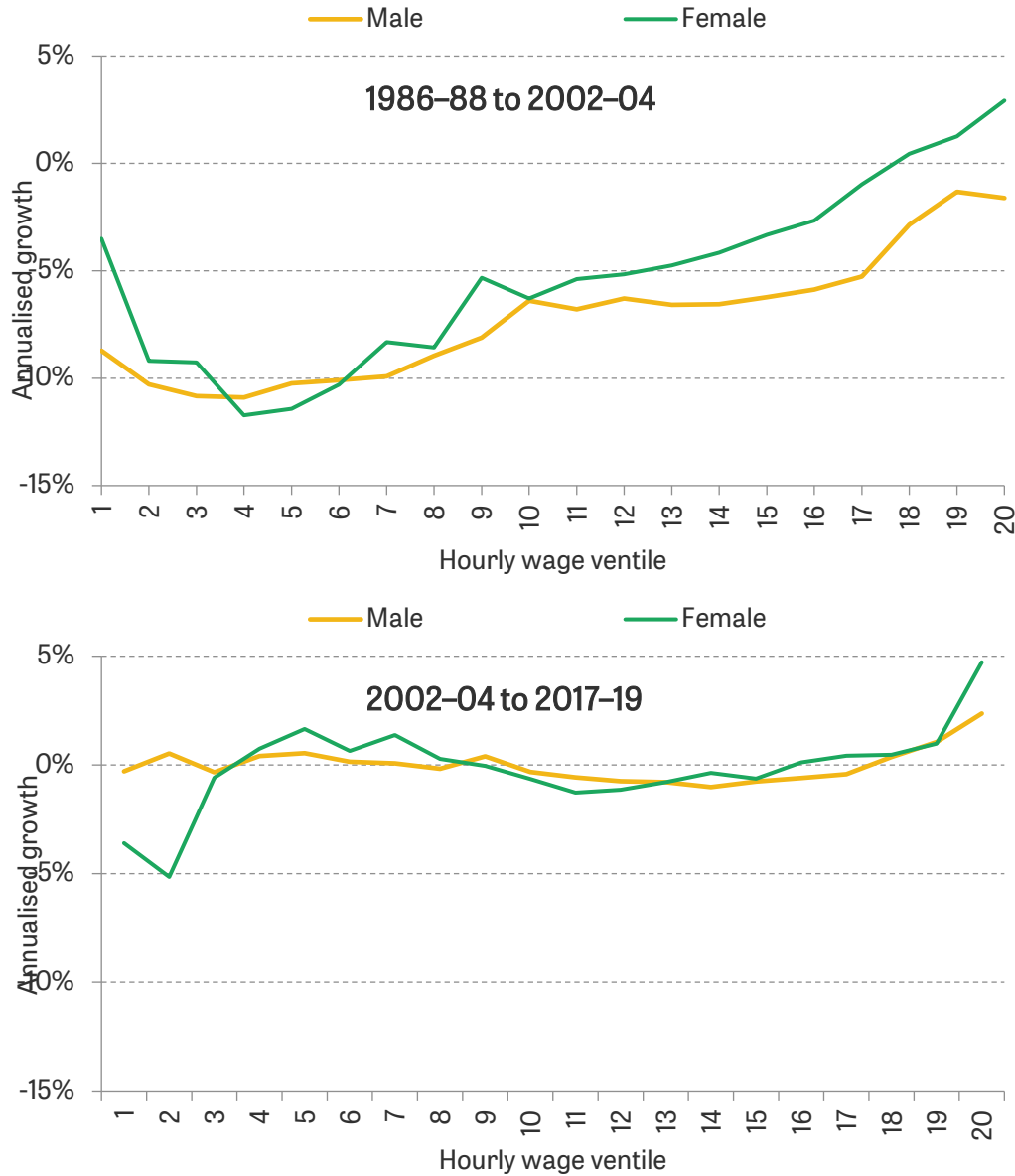


Note: Sample is employees aged 25–60.
Source: Personnel Records.

Figure 16 shows the large drop in hours worked between the late 1980s and the 2000s due to the consecutive working week reforms, especially at the lower half of the wage distribution, since higher-earning employees were already working fewer hours. In the top half of the distribution, the drop was clearly smaller for women, with those at the very top even experiencing positive

growth. Since the beginning of the twenty-first century, hours worked have shown almost no change across the distribution.

Figure 16. Annualised growth in mean hours worked among employees by hourly wage ventile, overall and by sex, selected years



Note: Sample is employees aged 25-60.

Source: Personnel Records.

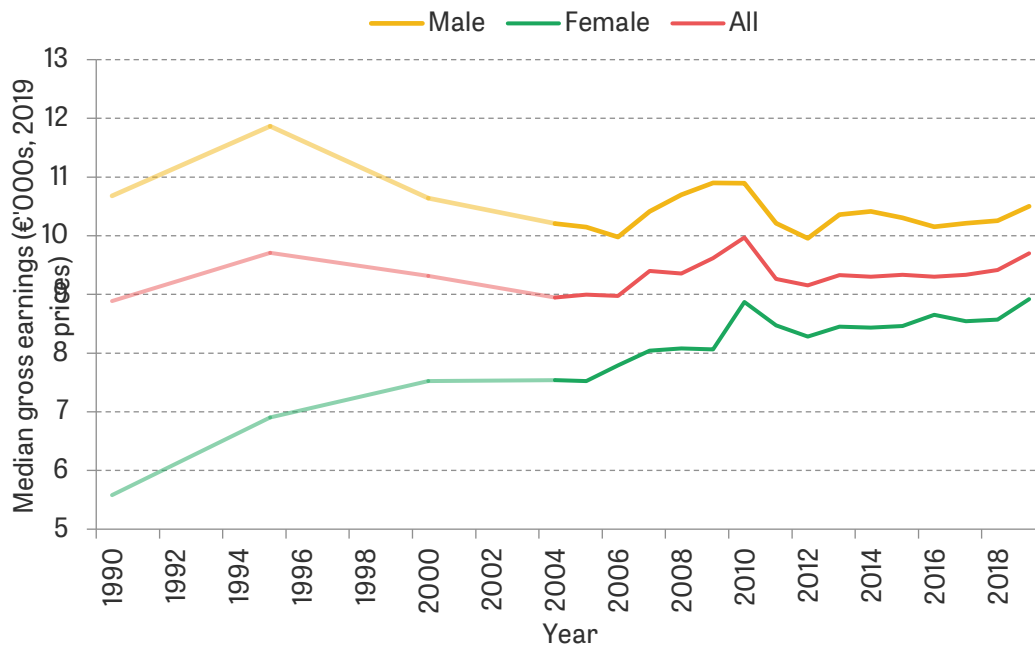
4.4 Inequality in individual earnings among those in work (employees and self-employed)

We now turn to trends in individual earnings, which reflect the combination of trends in hours worked and hourly wages for employees as well as the self-employed. Before we examine inequality statistics, Figure 17 shows the general stagnation of median earnings over the last three decades. With the reduction in hours worked being compensated by an increase in hourly

wages and the increase in female wages being compensated by the decrease in male wages, median income in Portugal has been fluctuating between €9,000 and €10,000 per year since 1990. The earnings growth during the 1990s and the 2000s was followed in each case by a recession, which cut individual earnings, helping maintain median earnings at their stationary level between €9,000 and €10,000 per year.

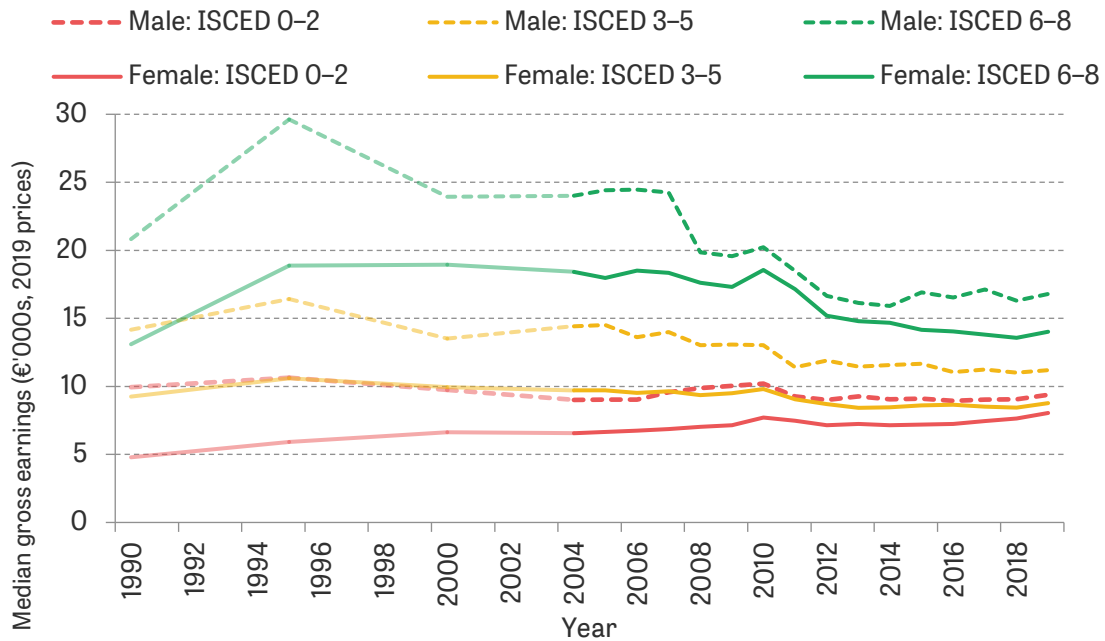
Still, there was a sharp reduction in the gender earnings gap – while women used to earn nearly half of what men earned in 1990, they now make 85 cents for each euro a man makes – as well as a sharp drop in the higher education premium, with men, in particular, experiencing a very sharp drop in their real earnings from the 1990s (Figure 18).

Figure 17. Median real gross individual earnings, overall and by sex, over time



Note: Sample is individuals in work aged 25–60 with strictly positive earnings. Gross earnings are in 2019 prices.
 Source: Household Budget Survey (1990, 1995, 2000), Survey on Income and Living Conditions (2004–19).

Figure 18. Median real gross individual earnings, by sex and education, over time



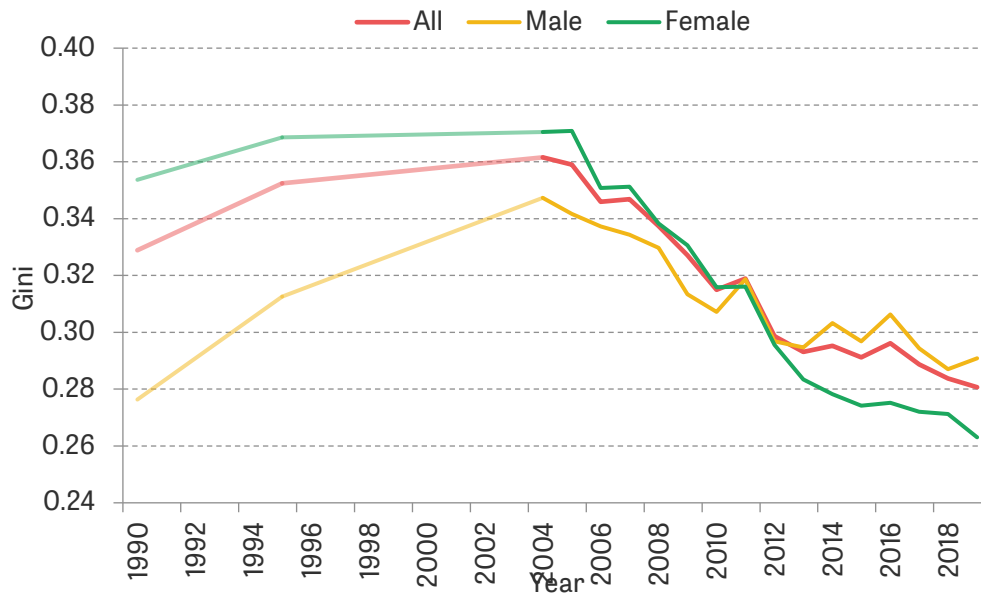
Note: Sample is individuals in work aged 25–60 with strictly positive earnings. Gross earnings are in 2019 prices.
 Source: Household Budget Survey (1990, 1995, 2000), Survey on Income and Living Conditions (2004–19).

Figure 19 shows that overall earnings inequality as measured by the Gini coefficient has shown similar behaviour to wage inequality. In just the first 5 years of the 1990s it rose by 2.4 points, stayed at around 0.36 until the mid-2000s, and then began a sharp fall, reaching 0.28 in 2019.⁴

While inequality among women, which was much higher than male inequality by 1990, stayed high until the mid-2000s, inequality among men rose dramatically, driving the initial rise in inequality – even with the sharp reduction of the gender earnings gap. Since the mid-2000s, however, female inequality has started to decrease much faster than male, standing 3 points below male inequality by 2019.

Figure 19. Gini coefficient of gross individual earnings, overall and by sex, over time

⁴ Other countries have produced Gini coefficient figures of gross individual earnings and total employer cost, but that was not possible in this case due to data unavailability.

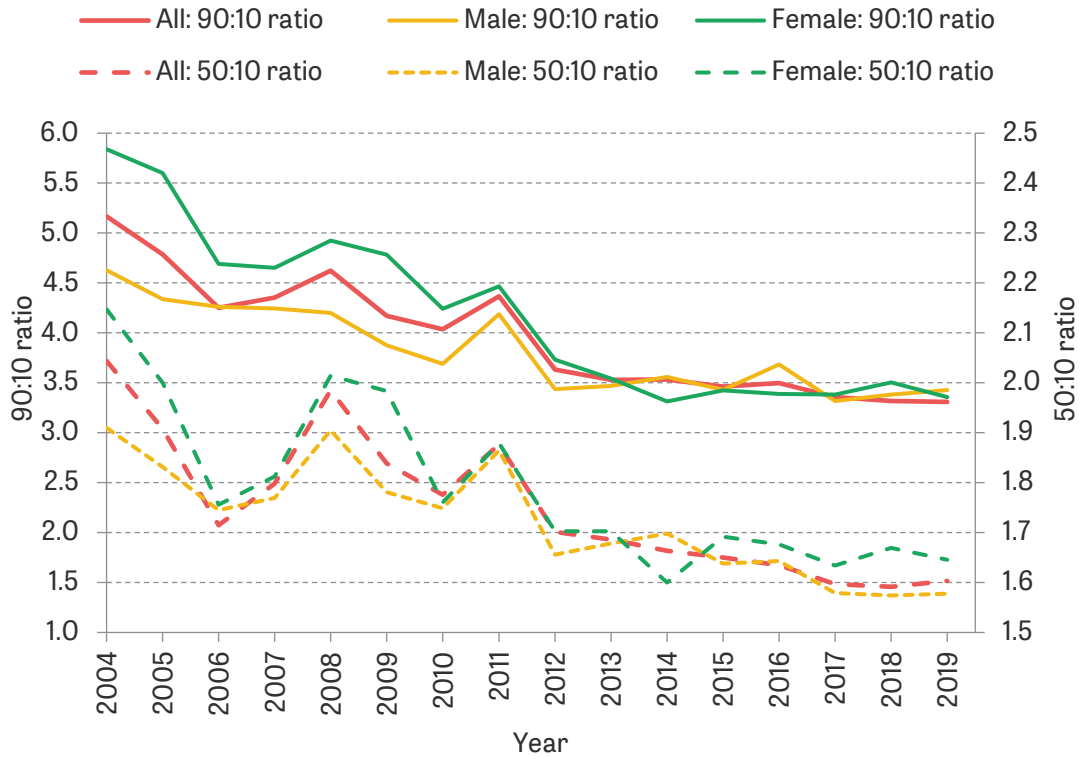


Note: Sample is individuals in work aged 25–60 with strictly positive earnings.

Source: Household Budget Survey (1990, 1995, 2000), Survey on Income and Living Conditions (2004–19).

Figure 20 shows the decline of earnings inequality in Portugal after the mid-2000s, as captured by both the 90:10 and 50:10 earnings ratios. In 2004, the median income was twice the income of someone at the 10th percentile of the earnings distribution. While this illustrates an already very concentrated lower half of the income distribution, it was still able to narrow further, with the median income being just 58% above the income at the 10th percentile by 2019. At the same time, there was also a strong reduction in inequality at the top. In 2004 someone in the 90th percentile of the earnings distribution earned five times what someone bottom earned – that figure was just 3.3 in 2019. This means that top earnings went from 2.5 times to 2 times as much as the median earnings over time. Inequality fell, at the top and at the bottom, both for women and men, albeit more so for women.

Figure 20. 90:10 and 50:10 ratios of gross individual earnings, overall and by sex, over time



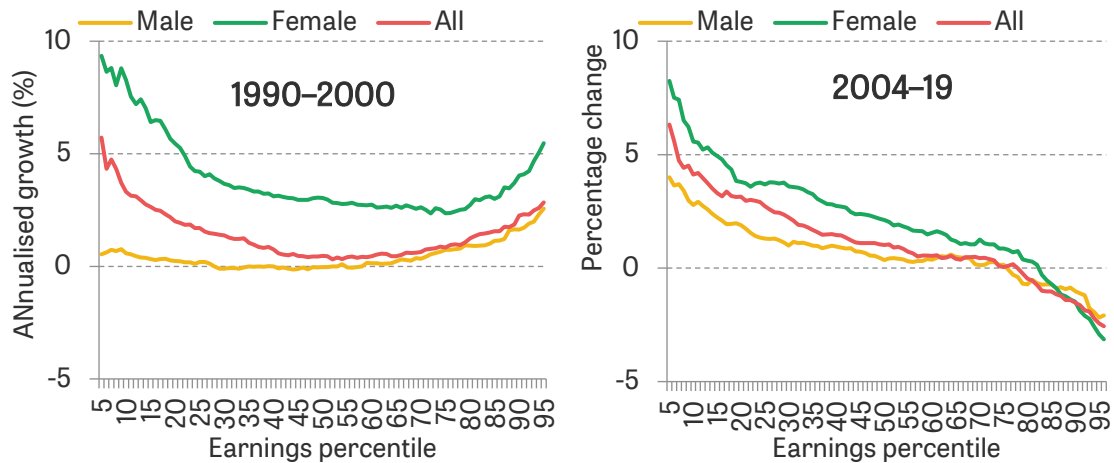
Note: Sample is individuals in work aged 25–60 with strictly positive earnings.

Source: Survey on Income and Living Conditions.

Figure 21 shows the growth in earnings across the distribution. During the first period we can observe the massive decline in the gender earnings gap – while women experienced very significant earnings growth across the distribution, especially at the bottom and at the top, most men saw no growth at all in their earnings between 1990 and 2000, with only those at the very top enjoying a sizeable increase in their earnings. On the other hand, between 2004 and 2019 we can see a very large decrease in inequality for both genders, but especially for women. While individuals at the bottom decile saw income growth of the order of 5% a year, those at the top of the distribution actually saw their earnings decrease over these 15 years.⁵

⁵ Other countries have produced annualised growth in gross earnings and employer cost by earnings percentile figures, but that was not possible in this case due to data unavailability.

Figure 21. Annualised growth in gross earnings by earnings percentile, overall and sex, selected periods



Note: Sample is individuals in work aged 25–60 with strictly positive earnings.

Source: Survey on Income and Living Conditions.

4.5 Self-employment

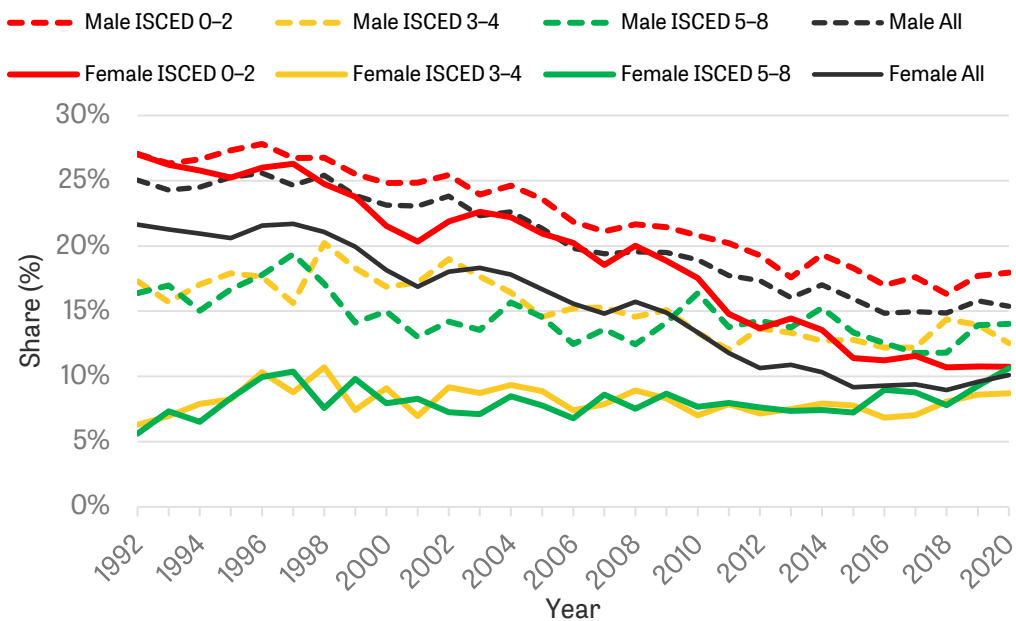
There has been a steady decline in self-employment in Portugal since the late 1990s, from around 23% during the 1990s to around 12% in the 2010s (Figure 22). The decline was mostly driven by the solo self-employed, although the share of other self-employed also decreased over this period. The drop was mainly concentrated among those with less education (Figure 23), especially for women, while the shares of self-employment for those with higher qualifications remained stable throughout. Figure 24 shows that self-employment is highly concentrated among the workers at the bottom of the earnings distribution. Moreover, the decline in self-employment after the mid-2000s was mostly above the 20th income percentile – only during the 2010s did self-employment also decrease at the bottom.

Figure 22. Share of employees and self-employed workers, over time



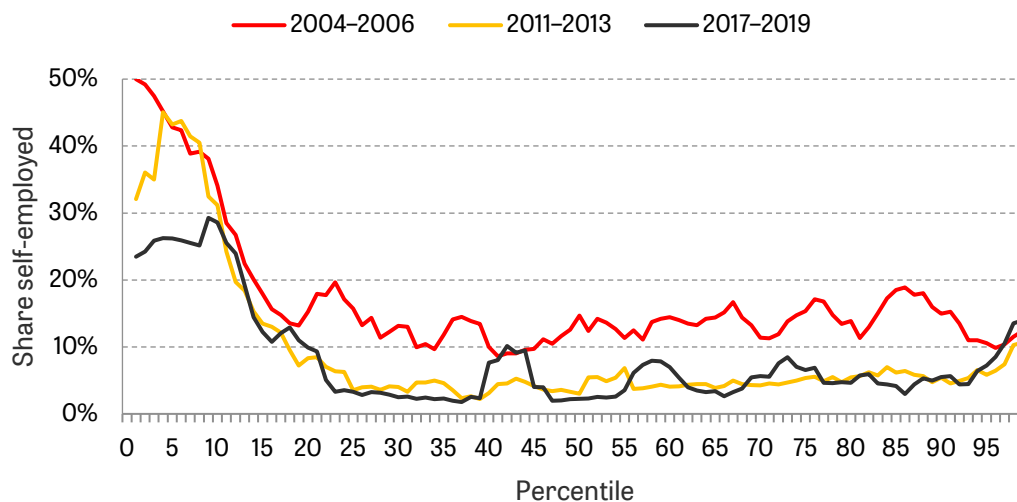
Note: Individuals aged 25–60. 'Solo self-employed' are self-employed without employees, 'other self-employed' includes self-employed with employees and family workers.
 Source: Portuguese Labour Force Survey.

Figure 23. Share self-employed by sex and education, over time



Note: Individuals aged 25–60. 'Solo self-employed' are self-employed without employees, 'other self-employed' includes self-employed with employees and family workers.
 Source: Portuguese Labour Force Survey.

Figure 24. Share self-employed by percentile of individual earnings, selected years



Note: Individuals 25–60 years of age. Five-year smoothing has been applied.
 Source: Survey on Income and Living Conditions.

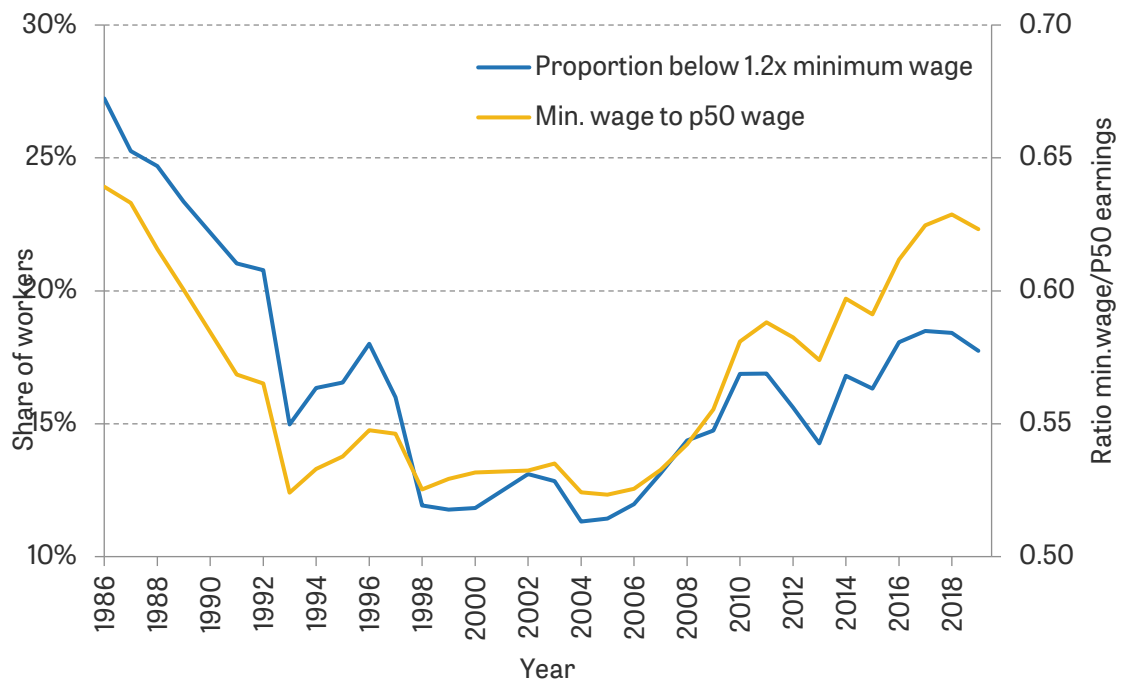
5. Labour market institutions

This section looks at labour market institutions that affect earnings and incomes: minimum wages and collective bargaining, self-employment and social insurance. As in most of the report, all analysis is restricted to workers aged 25–60.

5.1 Minimum wage and unions

The bite of the minimum wage presented a U-shaped trajectory between 1986 and 2019, as shown in Figure 25. During the 1980s and 1990s the real value of the minimum wage hardly changed, so the rising level of wages led to a strong decline in its importance in the labour market. Until the mid-2000s the bite of the minimum wage was stagnant, but since 2006 its real value has been rapidly rising – even with the government freezing its value during the Great Recession. With sluggish growth of the median wage during the first two decades of the twenty-first century, its bite rose significantly – by 2019, the minimum wage was above 60% of the median.⁶

Figure 25. Bite of the minimum wage, over time



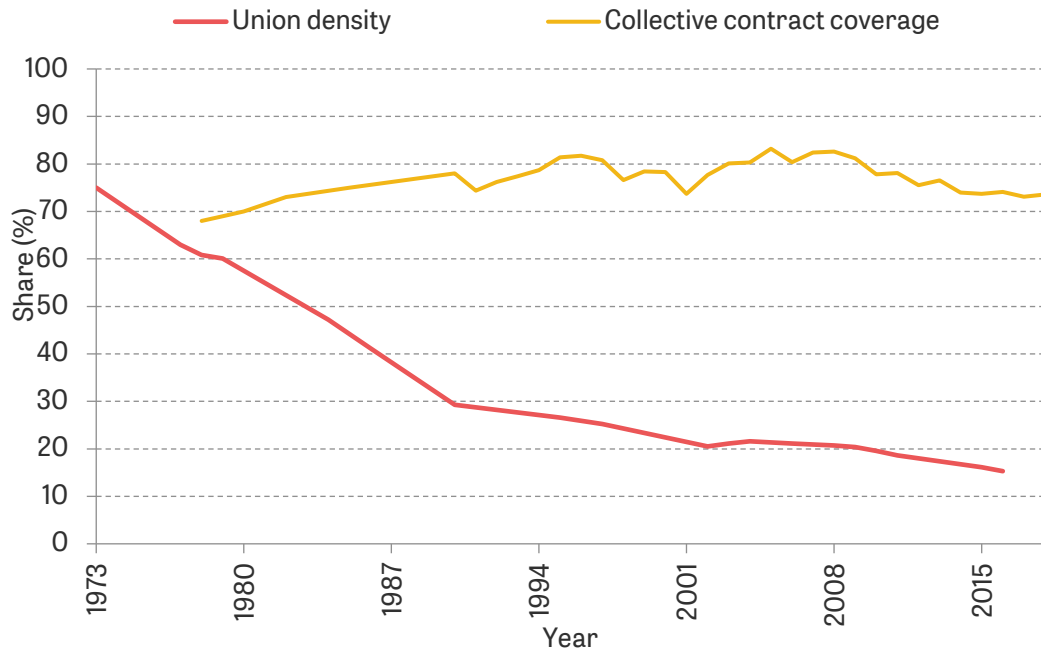
Note: Individuals aged 25–60. The figure presents the share of employees with a wage less than 1.2 times the minimum wage (blue line, left-hand side). The yellow line (right-hand side) is the ratio of the minimum wage to the median wage. Source: Personnel Records.

Figure 26 shows union density and collective bargaining agreement coverage for all employees in Portugal since the 1970s. After the democratic revolution of 1974, Portugal displayed very high

⁶ For more on the minimum wage in Portugal and its impact along the wage distribution, see Oliveira (2023a).

levels of union density, above 70%, but this fell sharply during the 1970s and 1980s, and more slowly thereafter, reaching a remarkably low level in more recent years, at just 15% in 2016. While the Portuguese decline was quite extraordinary, a fall in union density has been observed in several Continental European countries, attributed to the extensive collective contract coverage that has rendered unions pointless from the perspective of the individual worker. In fact, coverage by CBAs has remained high in Portugal in recent decades.⁷

Figure 26. Union density and fraction of workers covered by collective bargaining agreements, over time



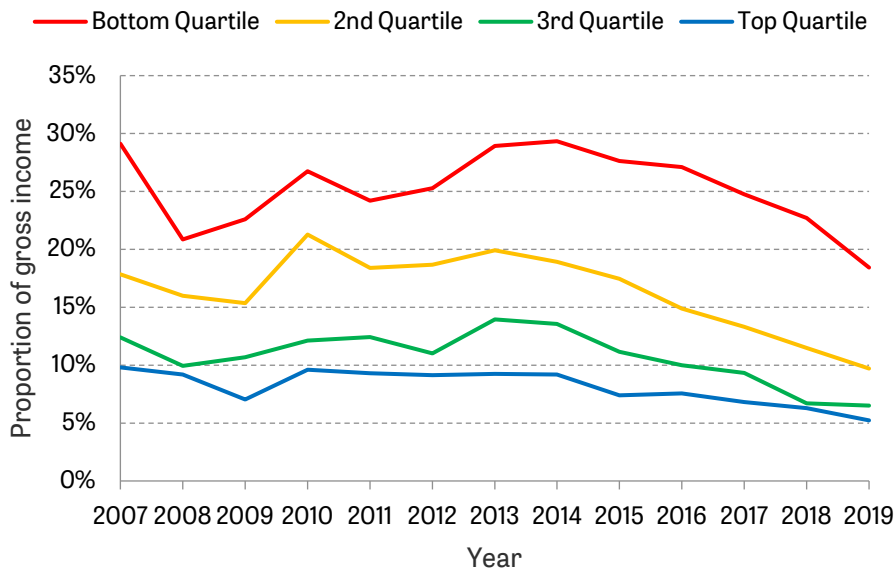
Note: The sample is all employees. The denominator is the number of employees.
Source: OECD/AIAS ICTWSS Database.

5.2 Taxes and benefits

Benefits as a proportion of gross income increased significantly in the wake of the Great Recession, especially in the lower half of the income distribution (Figure 27), as unemployment increased significantly, and many families had to resort to state benefits as a main source of income. For the bottom quartile, the average share of benefits in gross income reached almost 30% at the height of the crisis. Since then, however, the importance of benefits in household incomes has been steadily decreasing. In the upper half of the income distribution, there was a slight decrease in the share of benefits over time.

⁷ For more on unionisation and collective bargaining in Portugal, see Addison, Portugal and Vilares (2022) and Card and Cardoso (2022), respectively.

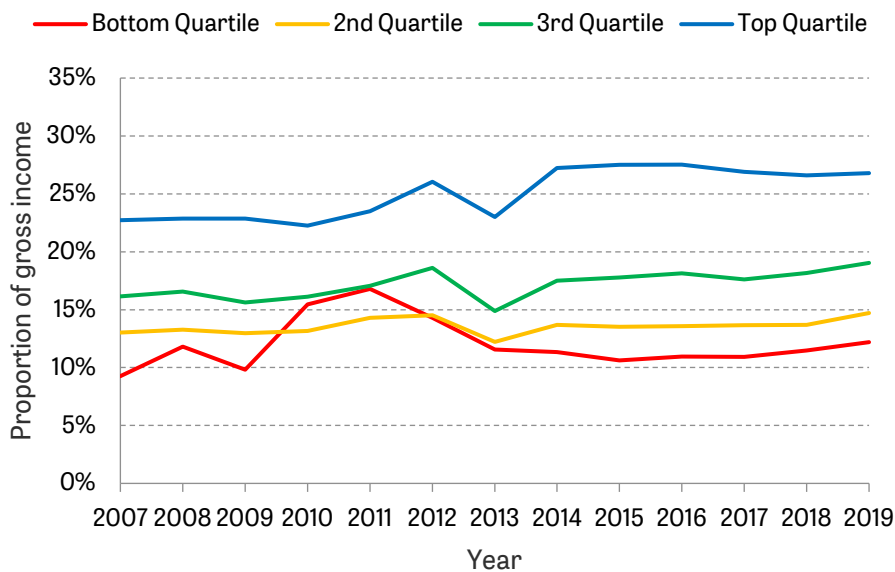
Figure 27. Benefits as a proportion of gross income, by net household income quartile



Note: Sample is individuals aged 25–60. All incomes have been equalised using the modified OECD equivalence scale.

Direct taxes as a share of gross income have remained relatively steady across the income distribution, increasing between 2011 and 2014 as a result of tax hikes that the government imposed in response to the public debt crisis (Figure 28). However, the increase in the tax burden was concentrated at the top of the distribution and this continued even during the recovery period – direct taxes reached 27% of gross income for the top quartile in 2019, from 23% in 2007. On the other hand, the bottom quartile of the distribution saw a sudden increase in direct taxes as a share of gross income in 2010–11, which faded relatively quickly.

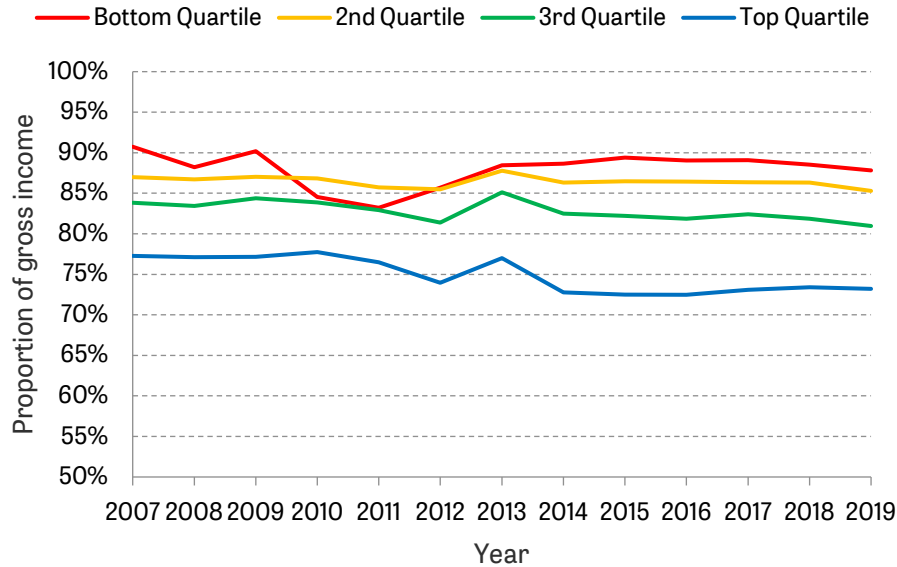
Figure 28. Direct taxes as a proportion of gross income, by net household income quartile



Note: Sample is individuals aged 25–60. All incomes have been equalised using the modified OECD equivalence scale.

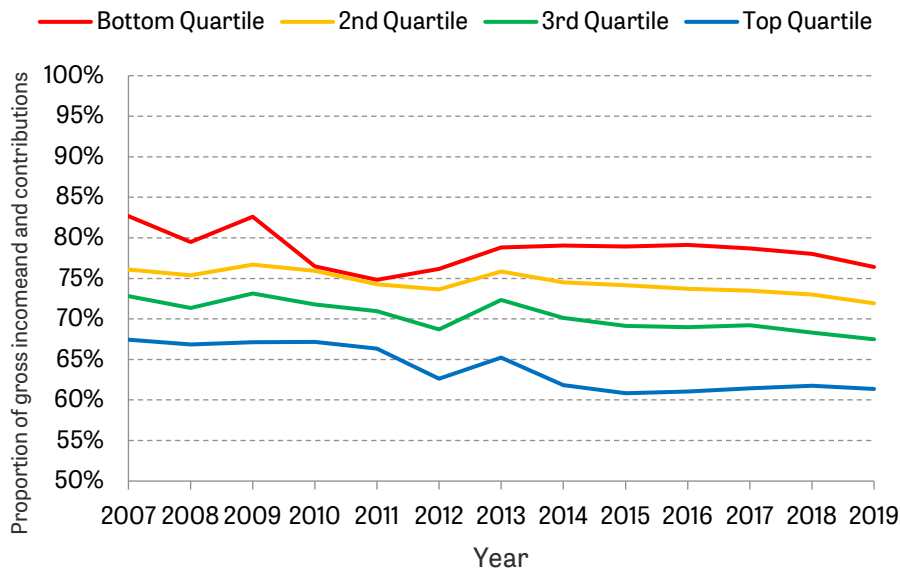
Over time, benefits have decreased and direct taxes have increased, as a share of gross income, at the top of the distribution. Disposable income for the top quartile went from 77% to 73% of gross income (Figure 29), and from 67% to 61% of gross income including employer social security contributions (Figure 30), between 2007 and 2019. There have also been decreases for the rest of the distribution, but they were less pronounced.

Figure 29. Disposable income as a proportion of gross income, by net household income quartile



Note: Sample is individuals aged 25–60. All incomes have been equivalised using the modified OECD equivalence scale.

Figure 30. Disposable income as a proportion of gross income and employer social security contributions, by net household income quartile



Note: Sample is individuals aged 25–60. All incomes have been equivalised using the modified OECD equivalence scale.

6. Household incomes

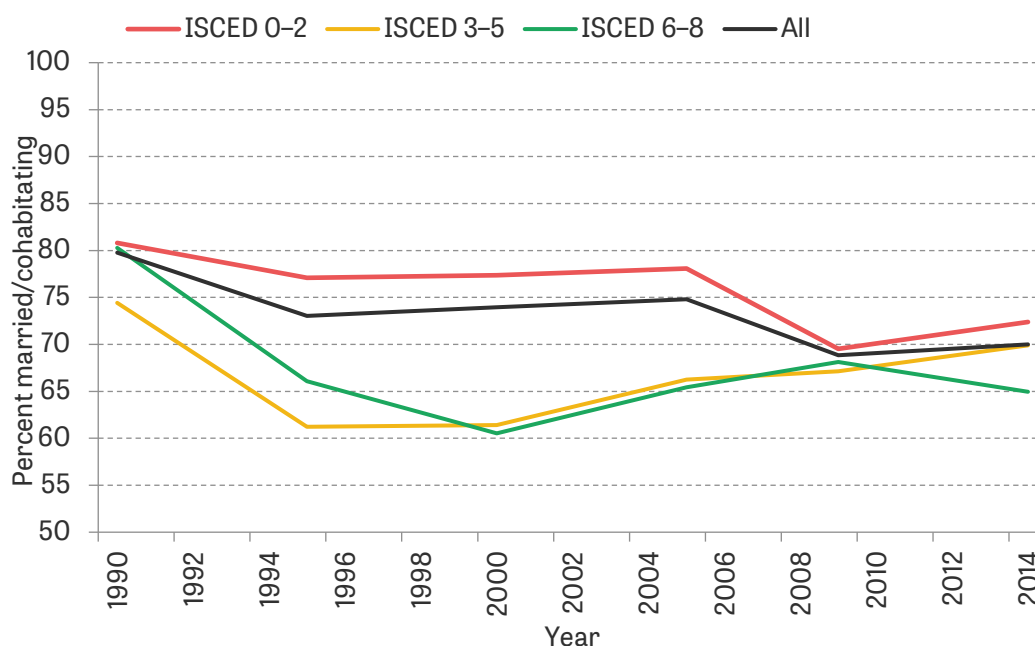
This section looks at trends in household incomes. We start by looking at trends in household composition and the degree of assortative matching, which partly determine household earnings. We then compare trends in household earnings and household disposable income for working households, drawing out the role of the tax and transfer system over time. Finally, we show a set of charts on trends in household income inequality across all households (including those where no one is in work).

Trends in household income inequality are driven by earnings inequality, patterns of assortative matching and other trends in family composition, and the tax and benefit system. This section will first consider patterns in household composition, and how individual earnings inequality translates into household earnings inequality. It then looks at household disposable income, taking account of taxes and benefits, and looking at individuals from all households rather than just workers or working households.

6.1 Trends in household composition

In recent decades there has been a 10 percentage point decline in marriage/cohabitation rates, from 80% to 70% (Figure 31). This was driven first by individuals with medium to high levels of education (ISCED 3–5 and 6–8) – with persons with college degrees (ISCED 6–8) seeing a drop of 12 percentage points in just the first decade – and later by the less educated (ISCED 0–2), although the latter remain the ones with the highest marriage/cohabitation rates. The share of people with medium levels of education (ISCED 3–5) who are married/cohabiting actually went up by 9 percentage points between 1995 and 2014, although that change is likely compositional since educational attainment has increased sharply.

Figure 31. Share married/cohabiting, overall and by education, over time



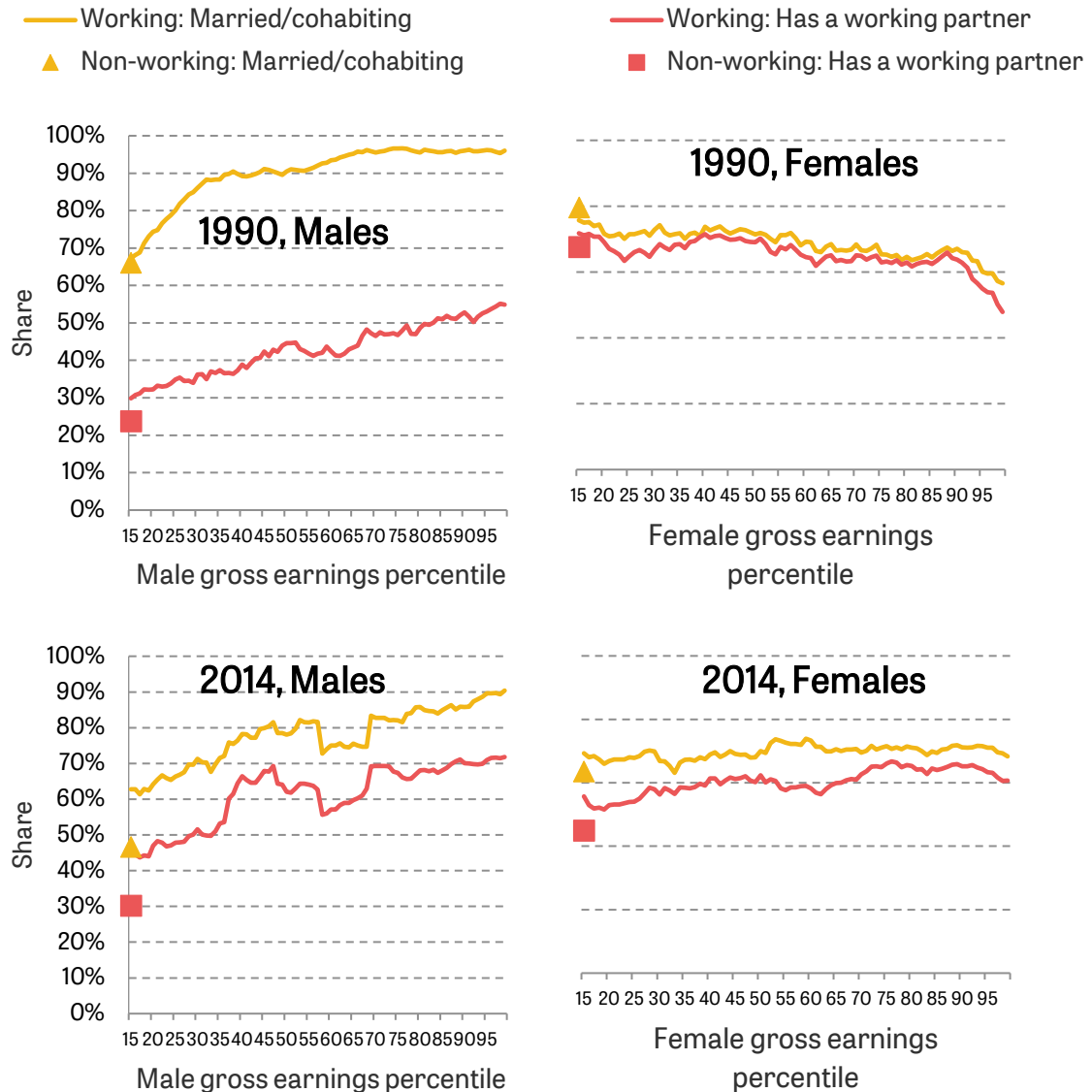
Note: Sample is individuals aged 25–60.

Source: Household Budget Survey.

Figure 32 shows a similar pattern when looking at individual earnings, rather than education. For men, the likelihood of being in a couple has declined over time – in 1990, marriage/cohabitation rates were above 90% for men above the 30th percentile of the income distribution, while in 2014 rates were below that figure across the distribution, with a very sharp drop for non-working men. Still, the likelihood of men having a partner *who works* increased significantly. For women, marriage/cohabitation rates have remained stable at around 70% over time, across the entire distribution, although there has also been a significant drop for non-working women.

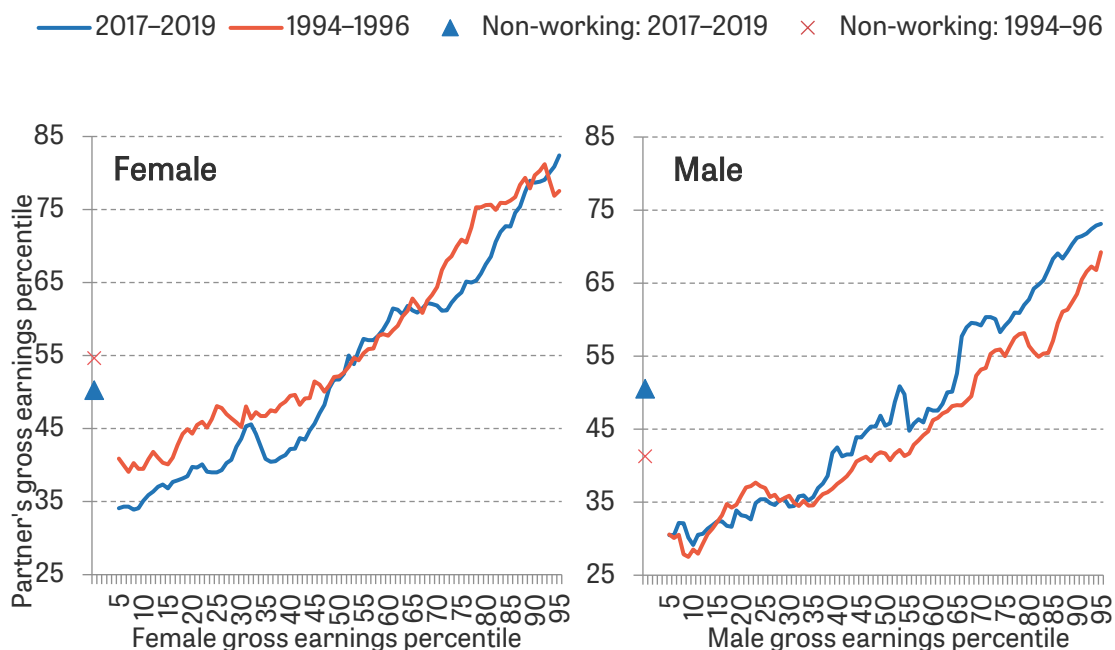
A clear gender difference has persisted over time: while the likelihood of being in a couple is uncorrelated with income for women, high-earning men have a much higher likelihood of being in a couple than lower-earning men. Figure 33 displays very clearly the high degree of assortative matching in the marriage market: the position of married/cohabiting men and women in the income distribution is almost directly proportional to their partners' position, and this has not changed through the years. The combined impact of these phenomena is to push up inequality in household earnings.

Figure 32. Share married/cohabiting and share with working partner, by sex and individual gross earnings percentile, selected years



Note: Sample is individuals aged 25–60. Married/cohabitating also includes civil partnerships. The proportion with a working partner is conditional on being married/cohabitating.
 Source: Household Budget Survey.

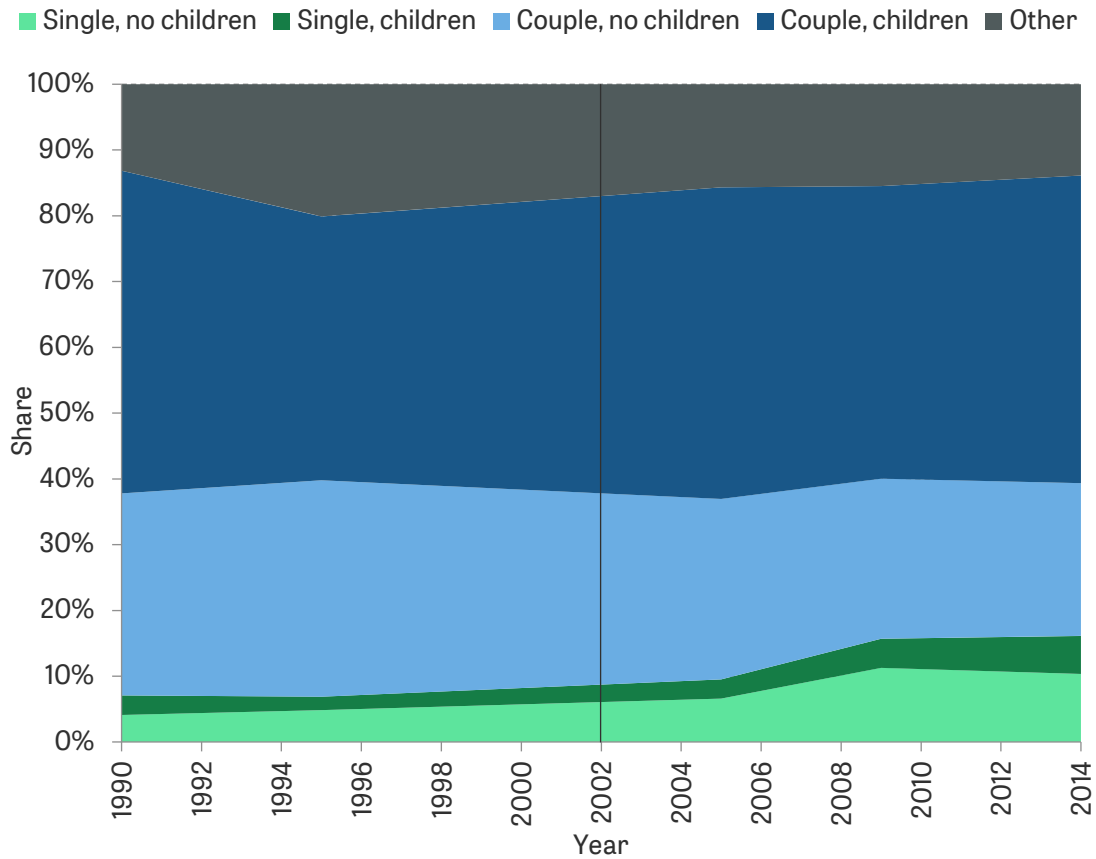
Figure 33. Mean gross earnings percentile of partner/spouse by individual's gross earnings percentile, selected years



Note: Sample is individuals aged 25–60 (with strictly positive earnings for defining earnings percentiles). Married/cohabitating also includes civil partnerships. Mean earnings of partners are plotted as five-point moving averages across the earnings distribution.
 Source: Household Budget Survey.

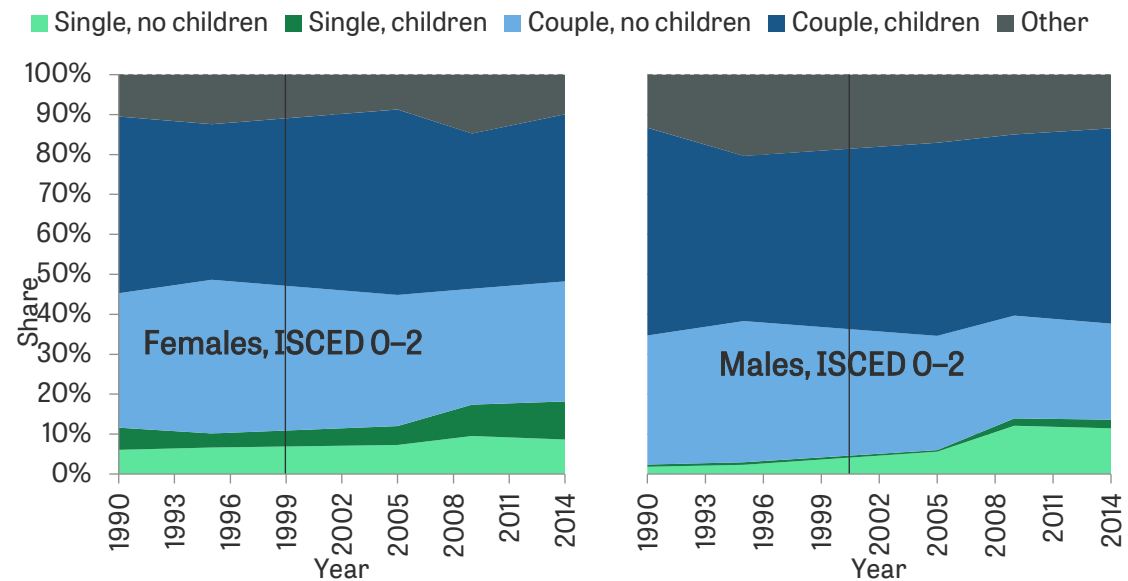
Looking at family structure more broadly, the share of prime working-aged adults who are single without children increased from 4% in 1990 to 10% in 2014, and that has been largely compensated by the decline of 7 percentage points in the share of childless couples (Figure 34). The share of single parents has also increased, from 3% to 6%. The rising share of single adults occurred especially during the last decade of the sample, with a combined increase of 7 percentage points just between 2005 and 2014. Figure 35 shows that the decline of the share of individuals who are in a couple occurred mostly for men, especially the higher-educated (a decline of 20 percentage points in single adults with/without children). On the other hand, the share of women with low to medium education (ISCED 0–2 and 3–5) who are in a couple was stable throughout (women with higher education did experience a decrease of 10 percentage points).

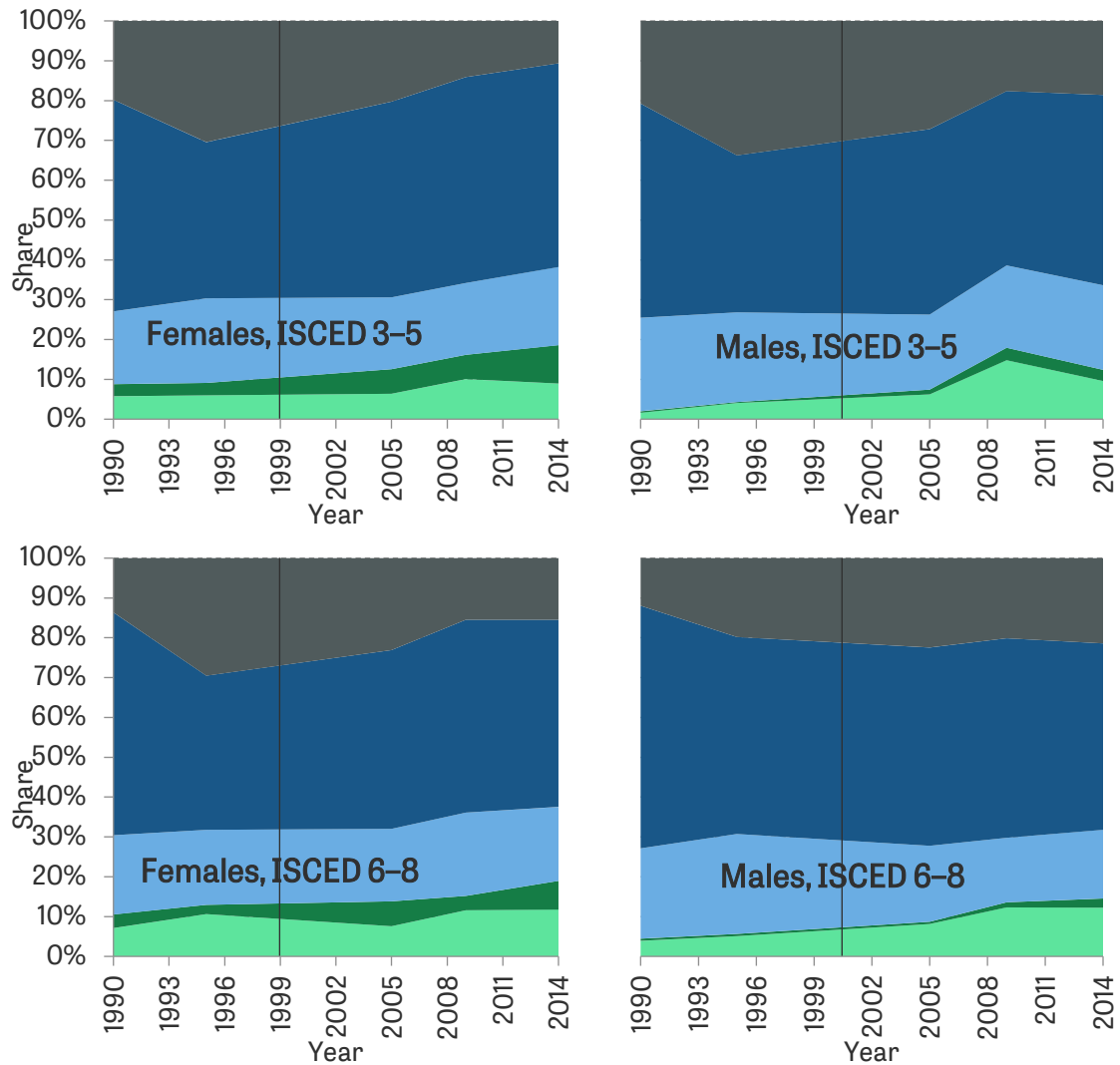
Figure 34. Share of individuals by position in the household, over time



Note: Sample is individuals aged 25–60. ‘Single, children’ and ‘Couple, children’ refer to children aged 0–18. Parents of adult children are categorised as ‘other’. Adult children and parents of adult children are categorised as ‘other’.
Source: Household Budget Survey.

Figure 35. Share of individuals by position in the household, by sex and education, over time



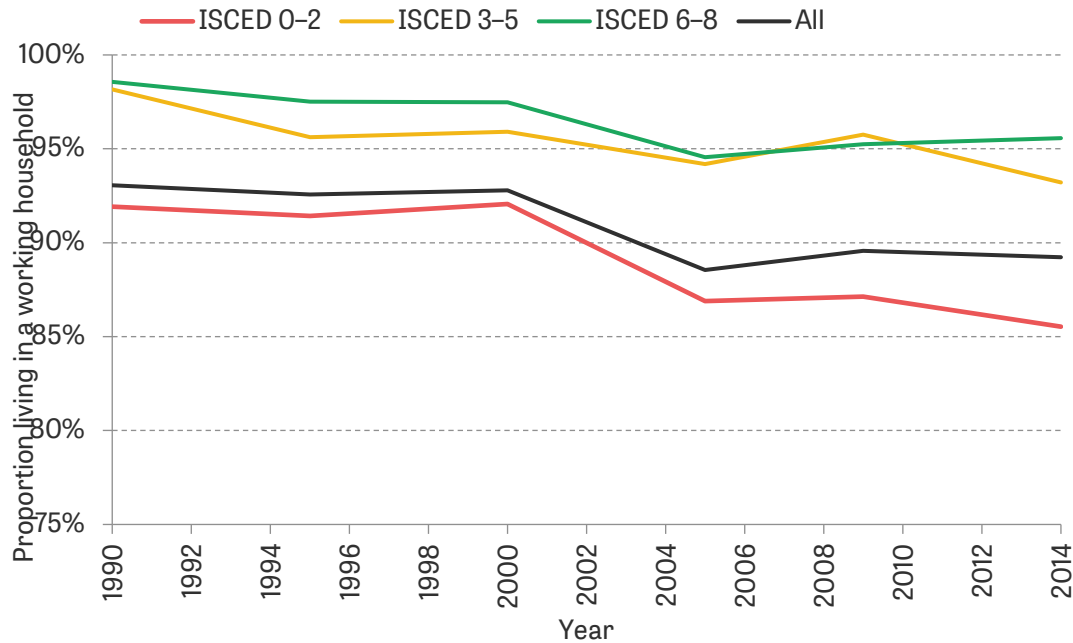


Note: Sample is individuals aged 25–60. ‘Single, children’ and ‘Couple, children’ refer to children aged 0–18. Parents of adult children are categorised as ‘other’. Adult children and parents of adult children are categorised as ‘other’.
 Source: Household Budget Survey.

6.2 Earnings and incomes among working households

The share of individuals in a working household has seen a slight decrease in recent decades, from 93% in 1990 to 89% in 2014, as illustrated by Figure 36. In particular, the share of individuals with low levels of education (ISCED 0–2) in a working household decreased by 6 percentage points between 2000 and 2014, although this phenomenon might be in part compositional, due to increasing levels of educational attainment. Still, the decrease in the share of individuals in a working household is also observed for more-educated individuals.

Figure 36. Share of individuals in a working household, overall and by education, over time



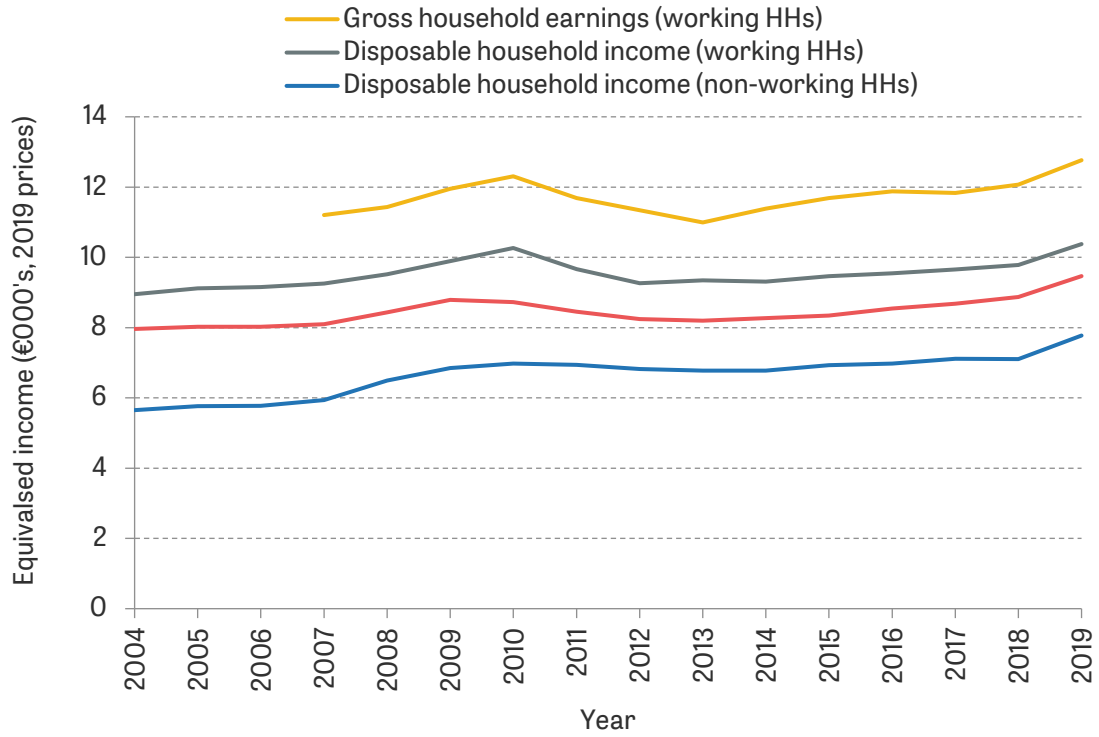
Note: Sample is individuals aged 25–60. A working household is defined as a household in which at least one adult is in work.

Source: Household Budget Survey.

We now consider how all the trends above combined to explain trends in household earnings, and how interactions with the tax and benefit system generate trends in disposable household income. Figure 37 shows the slightly positive trend in gross household earnings and disposable household income in recent years for working and non-working households. The trend in disposable household income is similar to that for earnings, but smoother during the Great Recession, as tax and benefit changes have smoothed out economic shocks over the years.⁸ However, the gap in disposable income between working and non-working households has steadily decreased, which could potentially have an inequality-reducing effect.

⁸ For more on how redistributive policy smoothed movements in disposable income in the wake of the Great Recession, see Farinha Rodrigues and Andrade (2019).

Figure 37. Median real gross household earnings and disposable household income among working households, over time

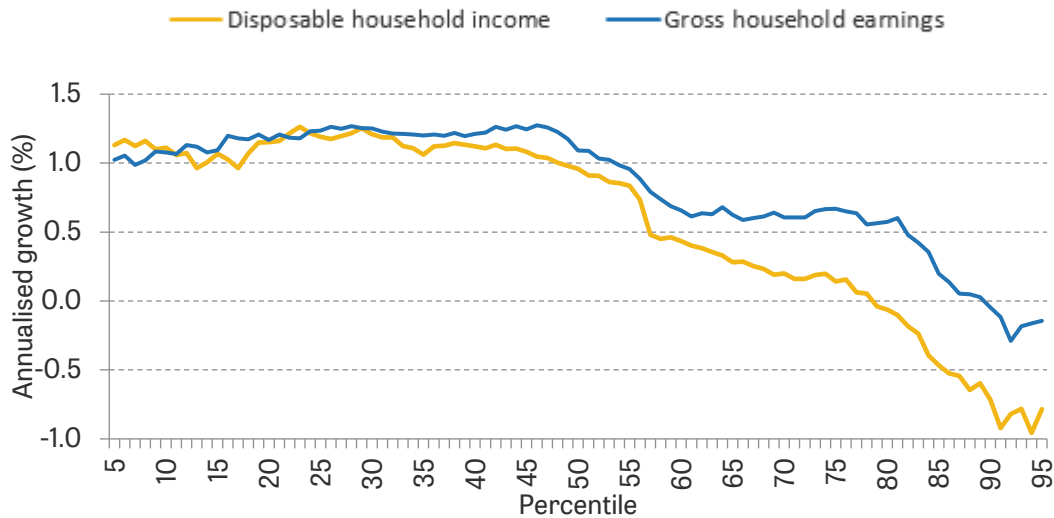


Note: Sample is individuals aged 25–60. A working household is defined as a household in which at least one adult is in work. For median gross household earnings we have restricted the sample to those with strictly positive household earnings. All incomes have been equivalised using the modified OECD equivalence scale.

Source: Survey on Income and Living Conditions.

Figure 38 shows that, between 2007 and 2019, there was a very different behaviour of growth across the upper and lower halves of the household income/earnings distribution. In that period, households in the lower half of the distribution transversally saw an annualised growth in gross as well as disposable income of 1% – quite high, compared to previous decades. In the upper half of the distribution, however, income growth decreased with income percentile. And the tax and benefit system made it so that households in the top 20% of the distribution actually saw a real decline in their disposable income since 2007 – in the top decile, disposable household incomes declined by 1% every year.

Figure 38. Annualised growth in real gross household earnings and household disposable income for working households, by percentile, 2007–19



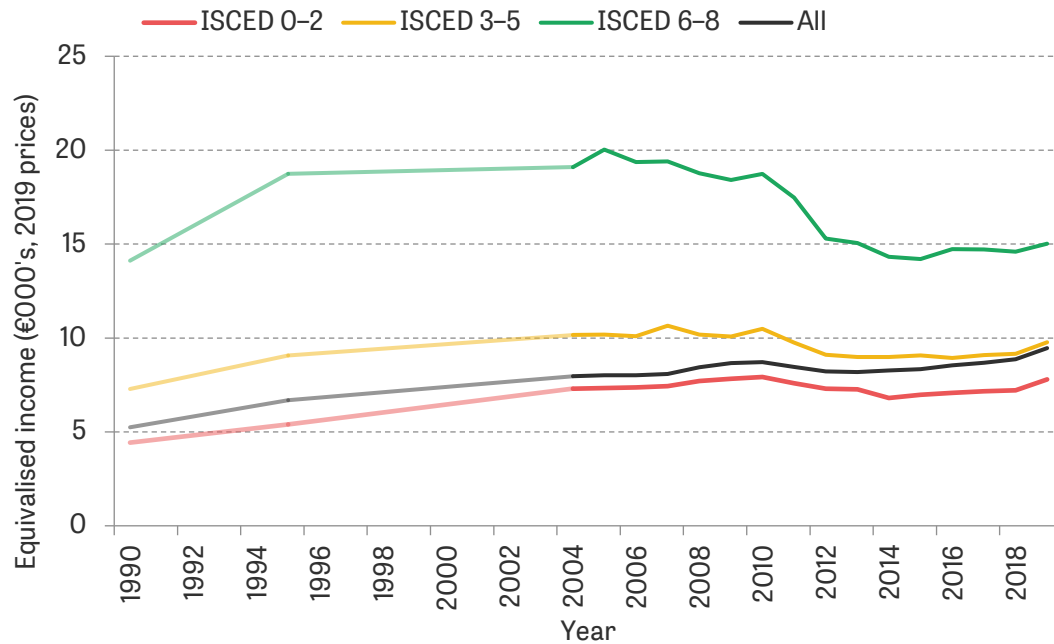
Note: Sample is individuals aged 25–60 in working households. A working household is defined as a household in which at least one adult is in work. For the household earnings series we have restricted the sample to those with strictly positive earnings. All incomes have been equalised using the modified OECD equivalence scale.

Source: Survey on Income and Living Conditions.

6.3 Inequality in incomes among all households

This final section brings together the trends shown above to look at inequality in disposable household incomes across all households. Figure 39 shows that the median real disposable household income in Portugal rose by 80% over the course of the last three decades, equivalent to about 2% a year. But that growth was completely driven by lower-educated households (ISCED 0–2). While lower-educated households saw a steady increase in their real income over the years, from €4,400 a year in 1990 to €7,800 in 2019 (albeit with a significant deceleration during the Great Recession), households with at least one member with a college degree had, in 2019, a median income that was just 6% higher than in 1990. During the 1990s there was a very strong increase in the college premium, with the median real annual earnings of those households rising from €14,000 to €20,000 between 1990 and 2005. However, their real income has been falling sharply since then – with a remarkably severe drop during the Great Recession – such that, by 2019, earnings of college-educated households were almost the same as they were three decades before.

Figure 39. Median real disposable household income for all households, overall and by education, over time



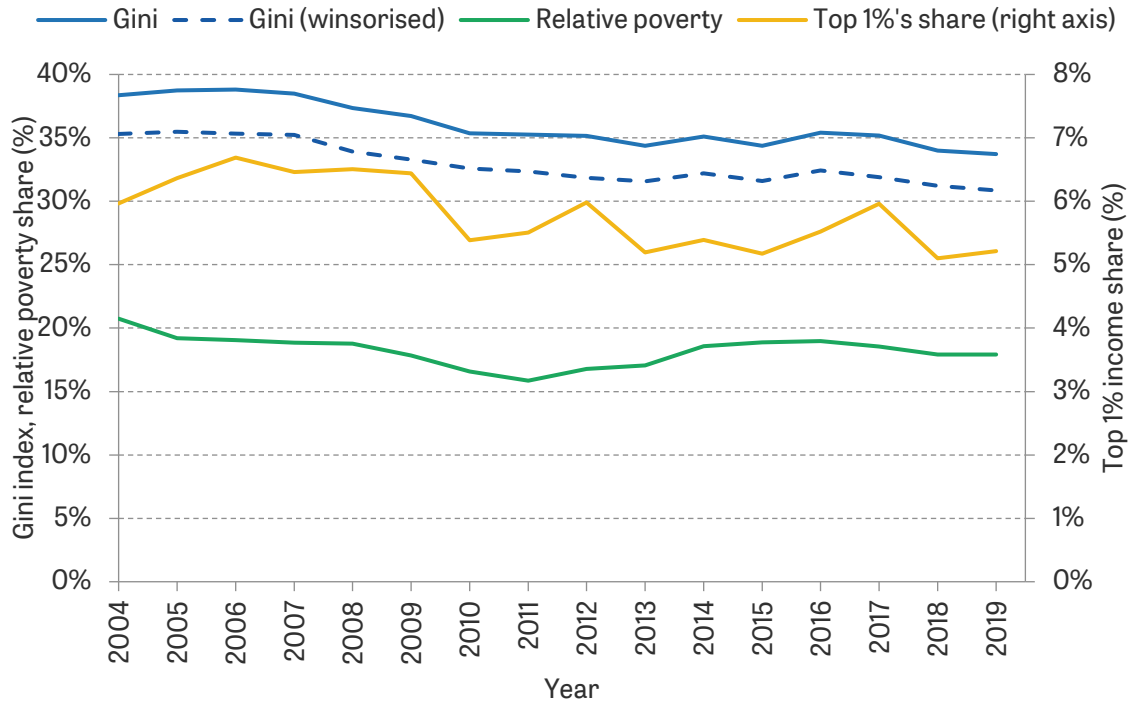
Note: Sample is individuals aged 25–60. Incomes are in 2019 prices. All incomes have been equalised using the modified OECD equivalence scale.

Source: Household Budget Survey (1990, 1995, 2000), Survey on Income and Living Conditions (2004–19).

Figures 40 and 41 show that measures of inequality in disposable household incomes – including the Gini coefficient, the top 1% share and the 90:10 ratio – have been decreasing since 2004, especially during the Great Recession. Inequality at the top of the distribution, as measured by the 90:50 ratio and the top 1% share, clearly display a very significant drop during the Great Recession – related to the fall in the earnings of higher educated individuals – and a more moderate decrease after that. Inequality at the bottom of the household income distribution (relative poverty and 50:10 ratio) was more stable than inequality at the top, with a slightly declining trend over the past decades – both measures saw a more pronounced decrease following the compression of the median wage during the Great Recession, which was quickly reversed during the subsequent decade.

Overall, the Great Recession was a turning point in regard to household income inequality in Portugal. After more than a decade of rising income inequality, especially at the top, the severe compression of incomes at the upper half of the distribution caused inequality not just to fall sharply, but to reverse its trend.

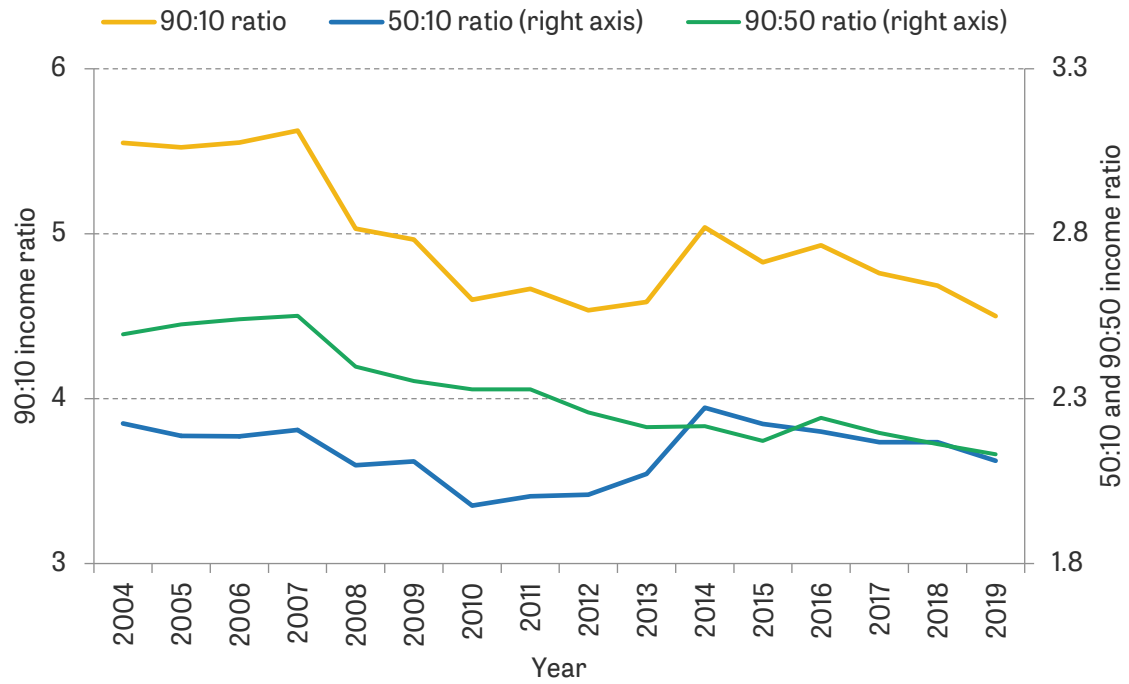
Figure 40. Gini, relative poverty and top 1% share of net household income for all households, over time



Note: Sample is individuals aged 25–60. The inequality measures are based on incomes measured net of taxes and benefits but before housing costs have been deducted. The relative poverty rate is defined as the proportion of people living in households with less than 60% of contemporaneous median income before the deduction of housing costs. All incomes have been equivalised using the modified OECD equivalence scale. The winsorised Gini series is winsorised at 99th percentile.

Source: Household Budget Survey (1990, 1995, 2000), Survey on Income and Living Conditions (2004–19).

Figure 41. Percentile ratios of disposable household incomes for all households, over time



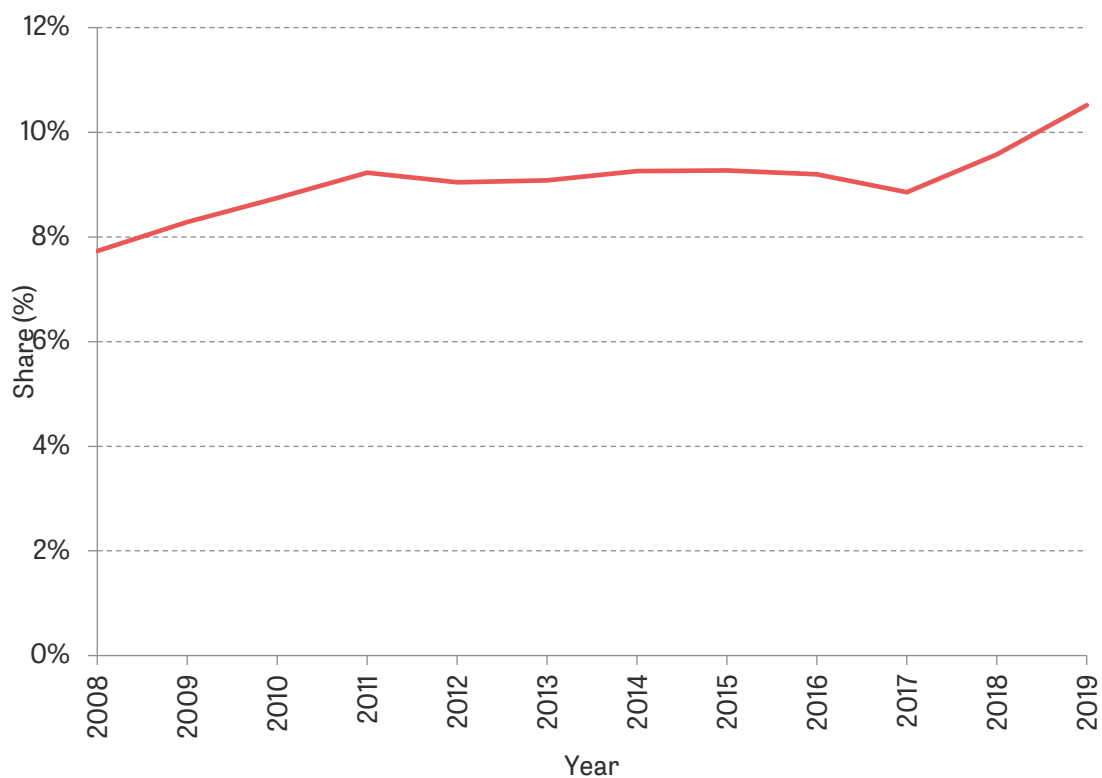
Note: Sample is individuals aged 25–60. The inequality measures are based on incomes measured net of taxes and benefits but before housing costs have been deducted. All incomes have been equalised using the modified OECD equivalence scale.

Source: Household Budget Survey (1990, 1995, 2000), Survey on Income and Living Conditions (2004–19).

7. Immigration

Portugal has a quite low immigrant population and, while it has risen over the past few years, the rise has been minor compared to other European countries. Broadly speaking, a third to a half of the immigrant population are European migrants, especially high-skilled eastern European individuals from countries such as Romania and Ukraine, but also older individuals from central and northern Europe; quarter are African migrants, especially from Portuguese-speaking countries such as Cape Verde and Angola; a quarter are Brazilian migrants; and there is also a small population of Asian, especially Chinese and more recently Indian, migrants. Between 2009 and 2019, the share of migrants in the Portuguese adult population rose from 8% to 11% (Figure 42).⁹

Figure 42. Share of migrants in the population 25–60 years of age, 2008–10



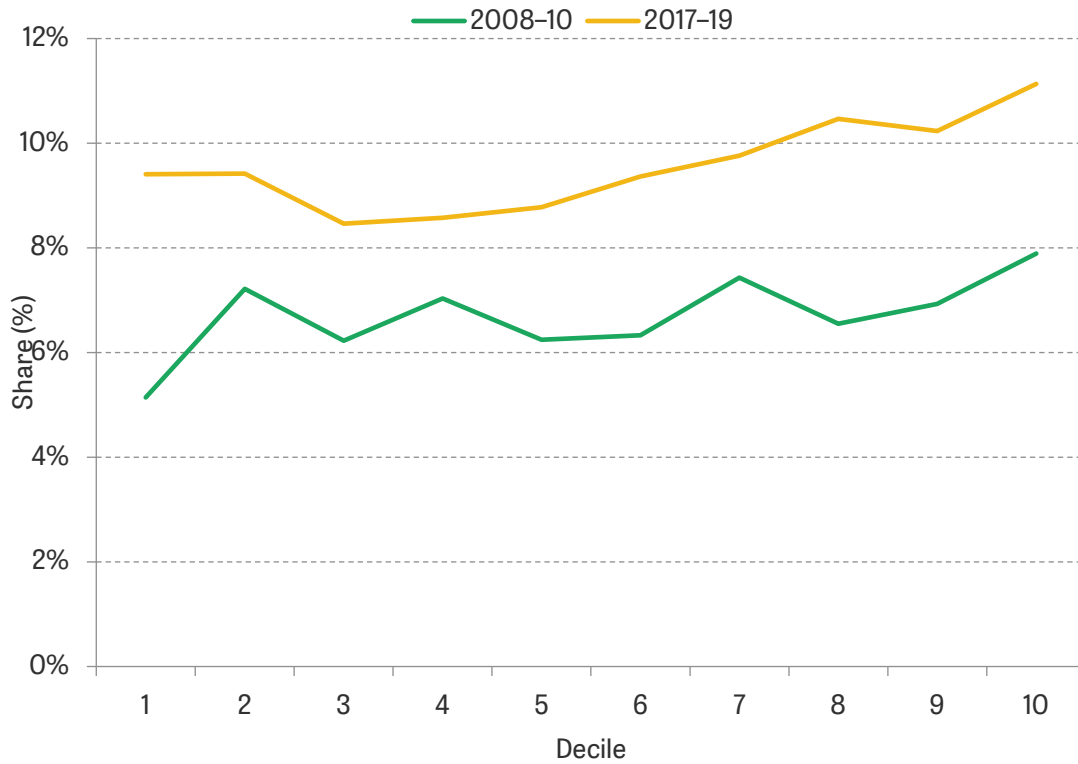
Note: Sample is individuals aged 25–60. A migrant is defined as someone who was born outside Portugal.

Source: Survey on Income and Living Conditions.

The share of migrants is relatively constant across the Portuguese income distribution (Figure 43), but there is a slight overrepresentation of immigrants in the upper deciles of the distribution in recent years, likely driven by older, richer central and northern Europeans moving to Portugal closer to retirement to enjoy the tax benefits that the country provides to those types of immigrants.

⁹ For more on immigration in Portugal, see Góis and Marques (2018).

Figure 43. Share of immigrants in the population, across the disposable income distribution, 2008–10 and 2017–19

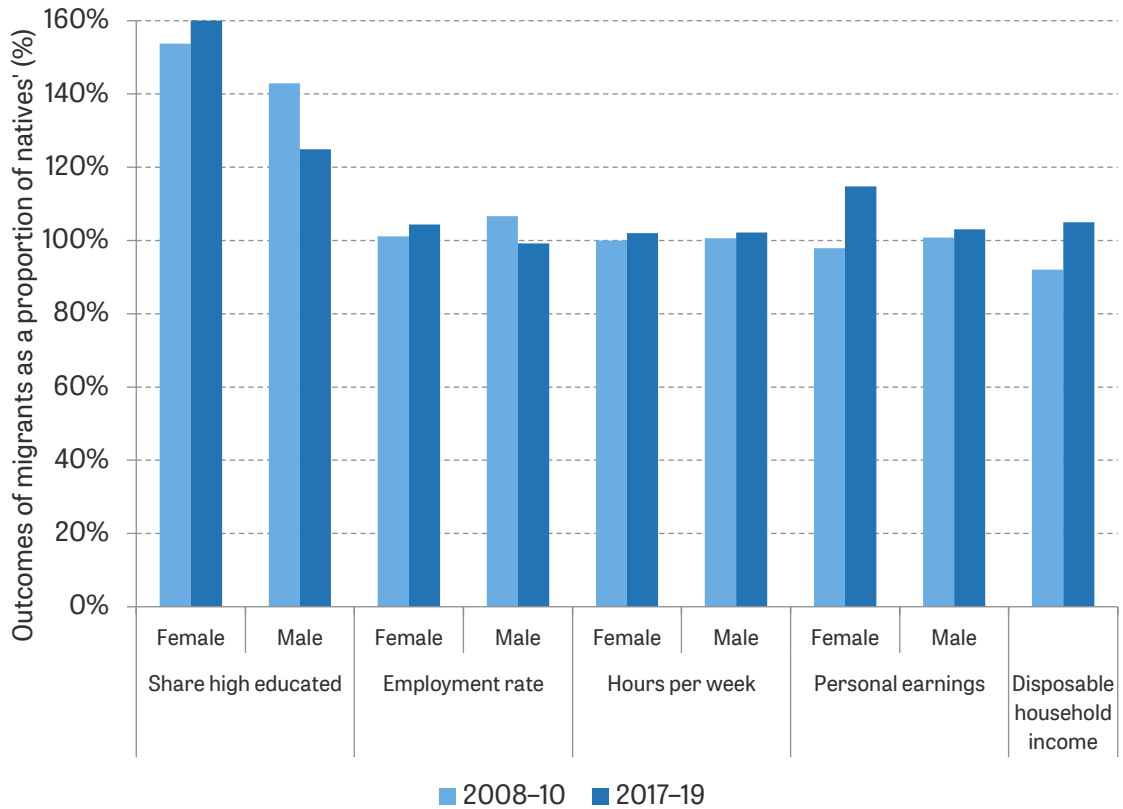


Note: Sample is individuals aged 25–60. A migrant is defined as someone who was born outside Portugal. Individuals with zero or less earnings are excluded.

Source: Survey on Income and Living Conditions.

On average, immigrants are quite similar to Portuguese natives in most outcomes, with the exception of higher-education attainment, where migrants largely surpass the attainment of natives (Figure 44). This is likely due to the richer central and northern European migrants, but also due to the eastern Europeans who often come to the country with higher education levels than the natives.

Figure 44. Outcomes of migrants relative to natives, and their children, ages 25–60, 2019



Note: Sample is individuals aged 25–60. A migrant is defined as someone who was born outside Portugal. Household incomes and earnings have been equalised using the modified OECD equivalence scale. A ratio equal to 100% implies that immigrants and natives have the same level of that outcome. A ratio greater than 100% indicates that the corresponding level for immigrants is higher than for natives.

Source: Survey on Income and Living Conditions.

8. References

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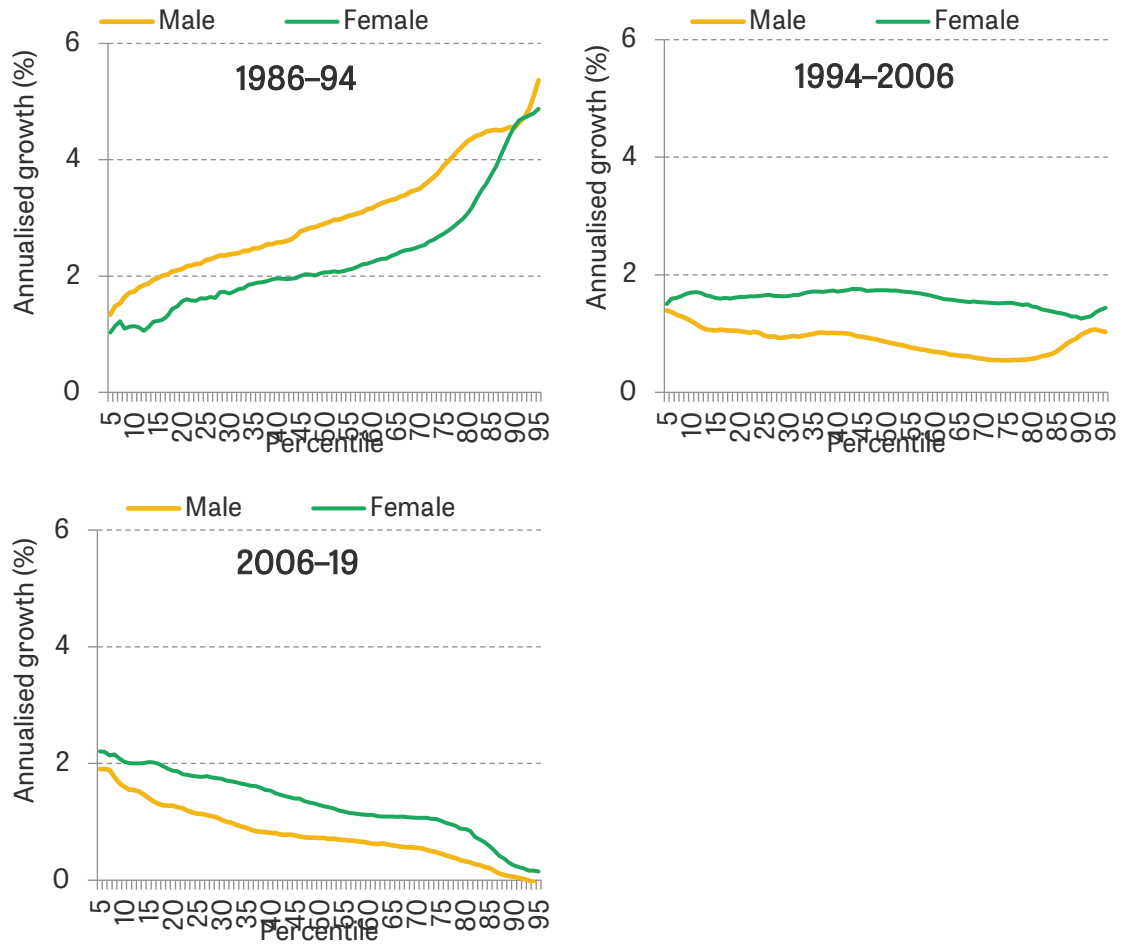
9. Data appendix

All figures and statistics in this paper were produced with recourse to one of the following four datasets unless explicitly stated otherwise:

- **Personnel Records/ *Quadros de Pessoal*(QP):** QP is an annual mandatory survey of all private establishments in Portugal with at least one wage earner, collected by the Ministry of Labour to monitor compliance with labour law provisions, ensuring its accuracy. This incredibly rich longitudinal matched employer–employee dataset of the full population of private employees in the country contains an extensive list of variables on firms, establishments and workers since 1986 (except for 1990 and 2001, when the data were not available). The sample used here contains all employees aged 25–60 between 1986 and 2019.
- **Labour Force Survey (LFS):** The LFS is a household survey conducted quarterly by Statistics Portugal (INE), with the goal of characterising the Portuguese labour market. It surveys around 40,000 individuals every quarter, mainly following Eurostat procedures and definitions. The sample used here contains all individuals aged 25–60 surveyed in the first quarter of each year, between 1992 and 2020.
- **Household Budget Survey (HBS):** The HBS is a household survey conducted roughly every 5 years by Statistics Portugal (INE) in order to provide information on households' budgets and expenditures. It was conducted in 1990, 1995, 2000, 2005, 2009 and 2014 and surveyed 25,000–50,000 individuals depending on the year. The sample used here contains all individuals aged 25–60 surveyed between 1995 and 2014, often focusing solely on working individuals.
- **Survey on Income and Living Conditions (SILC):** The SILC (or EU-SILC) is a household survey conducted by Eurostat with the aim of collecting comparable data on income, poverty, social exclusion and living conditions across EU countries. It surveyed around 10,000 individuals per year in earlier years, and closer to 30,000 individuals more recently. The sample used here contains all individuals aged 25–60 between 2004 and 2019, often focusing solely on working individuals.

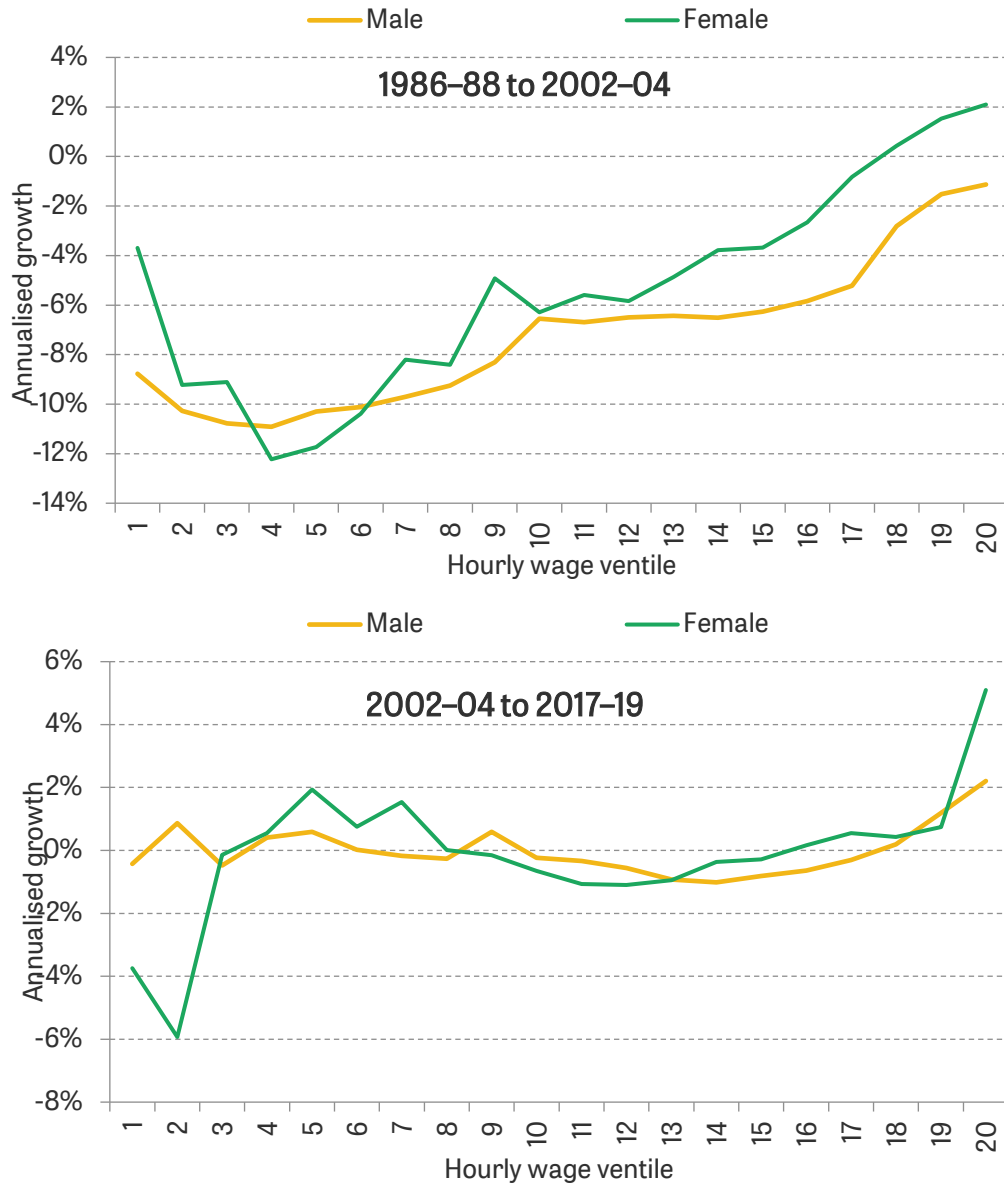
10. Appendix: 25–74 age group

Figure 45. Annualised growth in hourly wages among employees by wage percentile, overall and by sex, selected periods



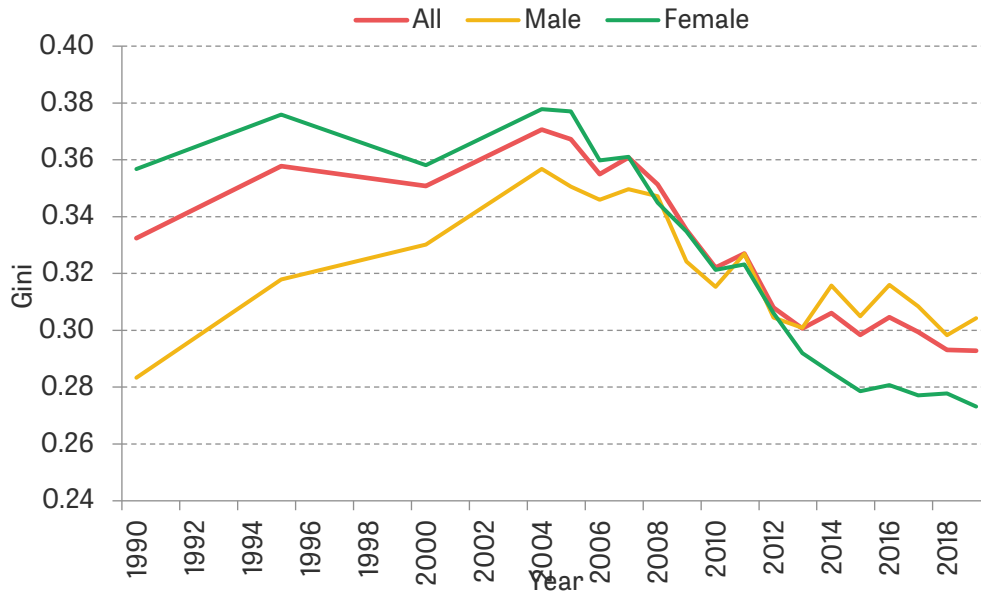
Note: Sample is employees aged 25–74. We do not include the bottom and top 1% when calculating the wage percentiles.

Figure 46. Annualised growth in mean hours worked among employees by hourly wage ventile, overall and by sex, selected years



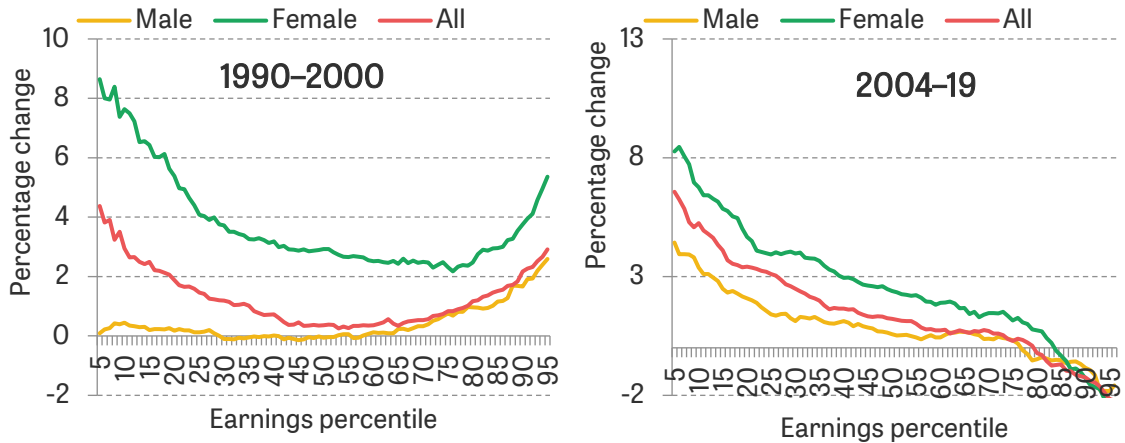
Note: Sample is employees aged 25-74. We do not include the bottom and top 1% of the gender specific wage distribution. We pool data from across the three years to obtain hourly wage for each 3-year period.

Figure 47. Gini coefficient of gross individual earnings, overall and by sex, over time, ages 25-74



Note: Sample is individuals in work aged 25–74. We exclude the bottom and top 1% of the gender-specific gross earnings distribution.

Figure 48. Annualised growth in gross earnings by earnings percentile, overall and sex, selected periods



Note: Sample is individuals in work aged 25–74. We exclude those in the bottom and top 5% of the gender-specific wage distribution.