8 Labour income and productivity

Context and key findings

Employers' ability to raise wages and other forms of labour income depends on increases in labour productivity, highlighting the welfare implications of productivity growth and its role as a key driver of long-term living standards. Several OECD countries have experienced a slowdown in productivity growth and in real average wage growth. Empirical evidence points to a decline in labour income shares since the mid-1990s in the majority of OECD countries, at least when measured from a producer perspective with gross income as a reference (Cho, 2017[1]). These developments have resulted in a decoupling between labour productivity and real labour income growth (Schwellnus, 2017[2]).

In this chapter, labour productivity is defined as real gross value added per hour worked. Labour share represents the share of total labour compensation in gross value added. Labour income – measured by average labour compensation per hour worked, is adjusted for inflation using the same price index applied to deflate value added (and hence productivity). Real labour productivity growing faster than average hourly real labour compensation (so-called decoupling) will thus lead to a decline in labour share (see more details below in How to read the indicators).

The focus of the chapter is on labour income share developments after excluding primary, real estate, and non-market sector, as developments in those sectors are usually driven by specific factors, such as commodity and asset price developments and national accounting conventions.

The well-being impact of the divergence between average hourly labour income and productivity growth rates is further exacerbated by the widespread slowdown in productivity growth, and in some countries even more so when real labour income is adjusted for inflation using the consumer price index (CPI). Indeed, inflation based on value added or consumer prices can differ significantly, reflecting for instance the effect of terms of trade. Also, the value-added deflator reflects movements in the prices of all goods and services domestically produced, whereas the CPI captures movements in the prices of goods and services in private household consumption only. These can either be imported or domestically produced.

Labour income shares and comparisons between average hourly real labour income and productivity developments in this chapter do not account for labour income inequalities across workers. The majority of OECD countries have experienced a further dissociating between median and average labour income since the mid-1990s, which is related to disproportionate labour income growth at the top of the income distribution (Bivens, 2015[3]) (Schwellnus, 2017[2]).

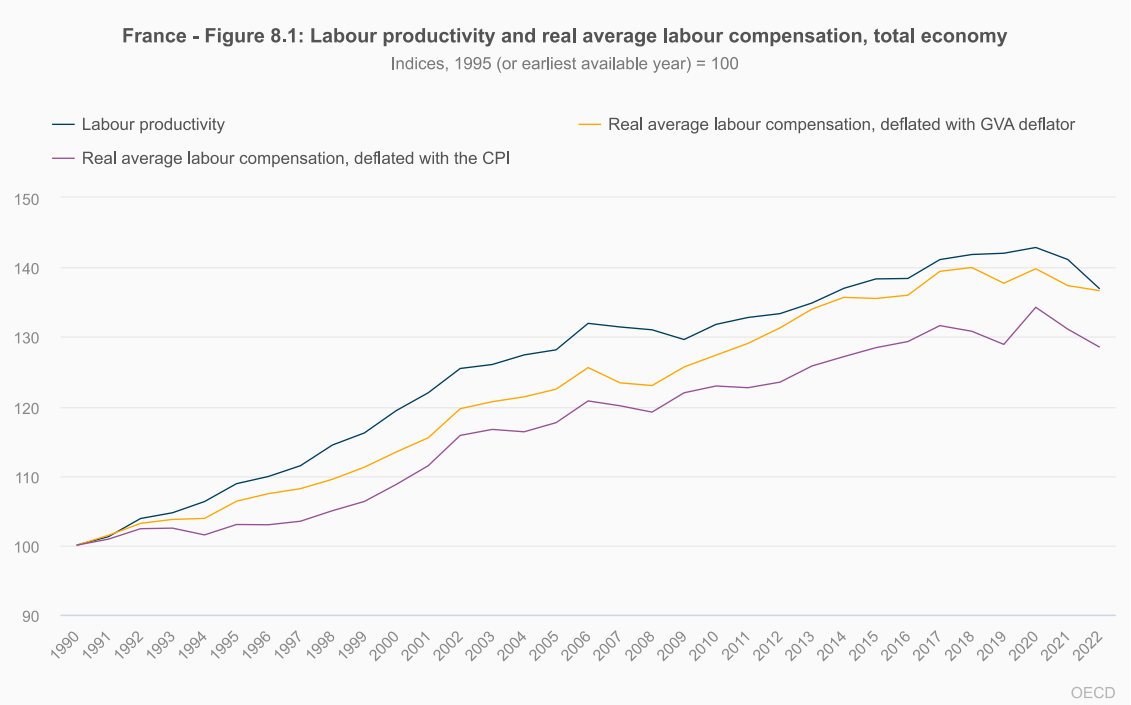
Despite a large amount of research on the determinants of decoupling, there is no clear consensus on the mechanisms behind it and a number of factors have been put forward. Paternesi, Meloni and Stirati (2023[4]) emphasise that technological progress displaces low-skilled labour in favour of capital and high-skilled labour, which would lead to a deterioration of low-skilled wages, which in turn would not be compensated in the aggregate by rising wages for the skilled group. Karabarbounis and Neiman (2014[5]) argue that the labour share has fallen due to a fall in the price of investment goods. Combined with an elasticity of substitution between labour and capital greater than one, this would lead to capital deepening and a reduction in the labour share. Mishel and Bivens (2021[6]) show that high unemployment, the erosion

of collective bargaining, and globalisation are the main factors putting downward pressure on wages in the United States. Stirati and Paternesi Meloni (2021[7])argue that the impact of labour market slack is depressing the private sector labour share in major OECD countries. Guschanski and Onaran (2022[8]) also find that offshoring and changes in labour market institutions are relevant factors in reducing the labour share in some OECD countries. Pro-competition product market regulations and labour market policies (Pak, 2019[9]), as well as changes in the industry composition of the economy (OECD, 2012[10]) can also affect labour shares.

Key findings

- **Real average labour income per hour worked (deflated with the GVA deflator) has failed to keep up with labour productivity growth since the mid-1990s in around a quarter of OECD countries with available data** (Figure 8.1.). This has occurred in addition to the widespread slowdown in labour productivity growth observed over the past decades, which has further undermined the increase in real average labour income per hour worked.
- **The decline in labour shares on average across OECD countries since the mid-1990s is less pronounced when the primary, real estate, and non-market sectors are excluded.** In those sectors labour share developments are largely driven by commodity and asset price developments and national accounting conventions. This finding holds true for most of the countries for which data are available and whose labour shares have declined since 1995 (Figure 8.3.).
- In around a third of the countries for which data are available, **the decoupling of average hourly real labour income growth from productivity growth in total economy is further exacerbated when labour compensation is adjusted for inflation using the consumer price index** (CPI) (Figure 8.2.).
- **In most OECD countries labour productivity and CPI-based real average labour income evolved in the same direction in 2022 when looking at the narrower defined business sector**, i.e. decreasing in most countries. However, as productivity and average hourly labour income often evolved at different paces, the negative gap between average hourly labour income and productivity growth rates widened in some countries (e.g. in Czechia, Hungary or Netherlands), while the negative gap narrowed in others (e.g. France or Slovenia). In some, the gap was positive and narrowed (e.g. Estonia or Greece).
- **Italy, Portugal and Spain are the only OECD countries with available data where labour productivity increased (or was stable) while real average labour income fell in 2022, both for total economy, and for the business economy excluding primary, real estate and non-market sectors**. This resulted in a negative gap between CPI-deflated average hourly labour income and productivity growth. This gap is relatively narrow for the total economy, but more pronounced for the business economy excluding the primary, real estate and non-market sectors.
- **In Estonia, Lithuania, and Latvia, the positive gap between real average hourly labour income and labour productivity growth persisted, though it decreased somewhat in 2022**. The positive gap emerged in the mid-2010s for Lithuania and Latvia, and in the mid-2000s in Estonia. This may to some extent be due to a catching-up effect of these former transition economies (OECD, 2022[11]) (OECD, 2022[12]), as well as more recently to increases in minimum wages and tightening labour markets (OECD, 2022[11]) (OECD, 2023[13]). In addition, the informal sectors are estimated to be relatively large in the Baltic economies (Elgin, n.d.[14]). This can lead to distortion of the gap between the two measures.

Indicators



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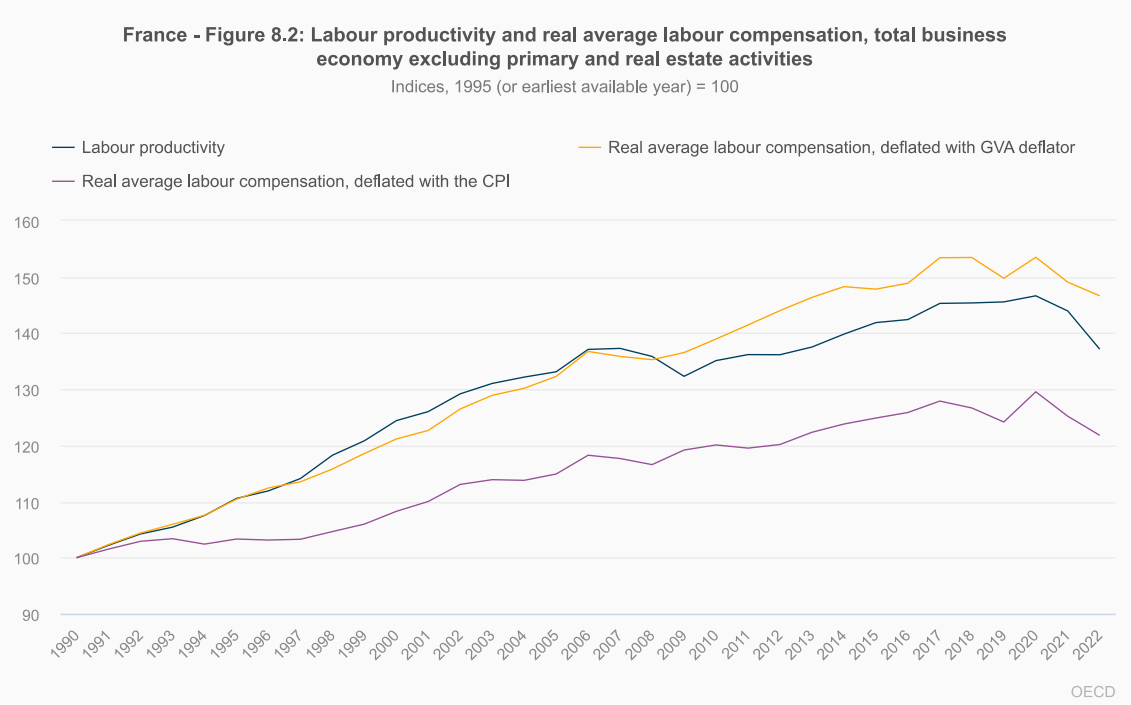

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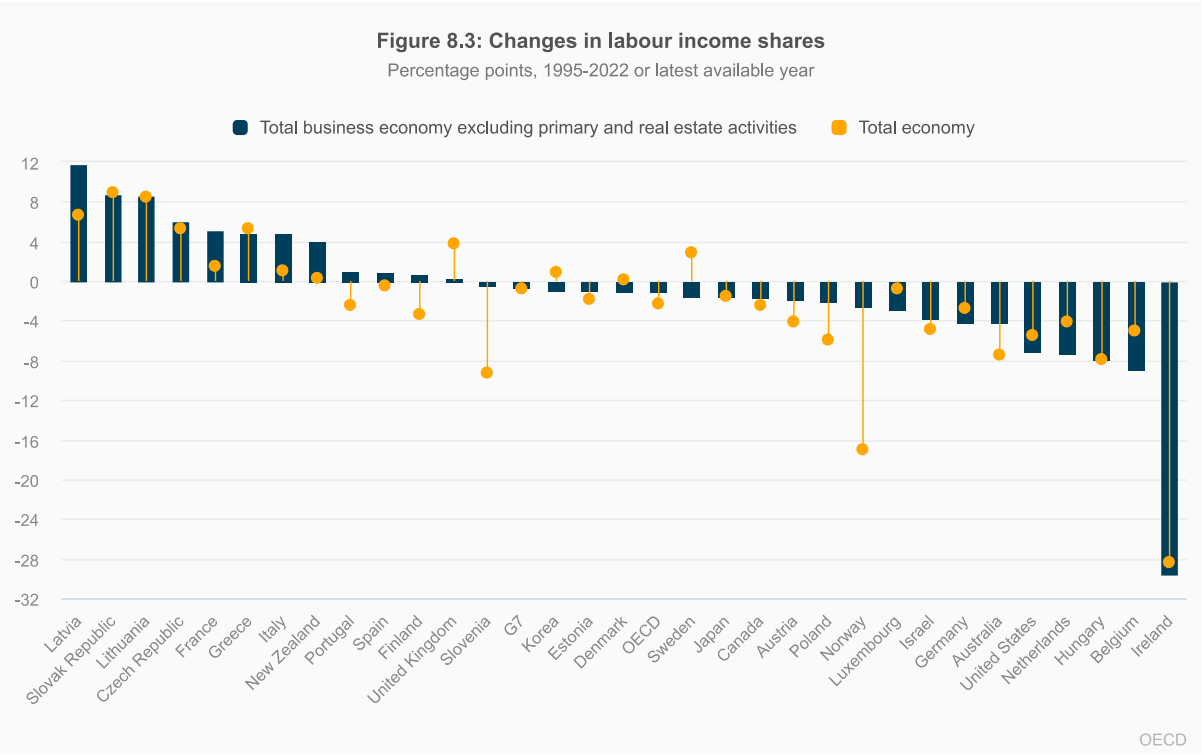

How to read the indicators

Labour productivity in this chapter is defined as the ratio of real value added *at factor cost* – that is the production cost of products and services excluding the value of taxes and subsidies on production – to total hours worked, while average labour income is defined as the ratio of total labour compensation to total hours worked.

Total labour compensation is computed as the sum of the compensation of employees and self-employed workers. The labour compensation received by employees includes remunerations in cash and in kind and employees' and employers' social contributions. It is readily available in the national accounts. As the labour income received by self-employed is recorded in national accounts as mixed income, which bundles both their labour and capital income, the labour compensation received by self-employed has been imputed. Following (Schwellnus, 2017[2]), it is assumed that the hourly compensation of self-employed workers is equal to the hourly compensation received by employees at the level of each individual industry. For a few countries, hourly compensation received by employees by industry is not available. In such cases, aggregate compensation per employee is used.

The total business economy excluding primary and real estate activities includes the ISIC Rev.4 industry codes C to N, excluding L, plus R and S. However, for Israel, Japan, Korea, New Zealand the data includes the ISIC Rev.4 industry codes B to N, excluding L, plus R to U. For Switzerland, in the absence of information by industry, total labour compensation is compiled using compensation of employees, and hours worked for the total economy.

The focus of the chapter is on labour income share developments after excluding primary, real estate, and non-market sectors, as labour shares is those latter industries is often driven by specific factors. For example, the value added of the real-estate sector includes all (actual and imputed) housing rents in an economy, whereas the corresponding labour income is only related to the workers in the real-estate sector. Therefore, the labour share in the real-estate sector is well below the labour share of the total economy

and does not reflect the labour market mechanisms connecting labour income to productivity. Moreover, housing rent developments can lead to large fluctuations in total-economy labour shares when the real-estate sector is relatively large.

Similarly, developments in total-economy labour shares may be largely driven by fluctuations in commodity prices in countries with large primary (i.e. agricultural or mining) sectors. For example, when commodity prices increase, aggregate profits rise without commensurate increases in wages.

Lastly, according to national accounting conventions value added in the non-market sector (e.g. education, health, and public administration) is measured as the sum of labour compensation and capital consumption, which may bias labour share in these sectors and artificially limits its variation over time.

Data sources

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