



Annual review

2024



Labour Market and Wage Developments in Europe

EUROPEAN COMMISSION

Directorate-General for Employment, Social Affairs and Inclusion
Directorate F - Employment and Social Governance, Analysis
Unit F.2 – Labour Market and Wages, Eurofound

Contact: Nathalie Darnaut

E-mail: EMPL-F2-UNIT@ec.europa.eu

European Commission

B-1049 Brussels

Manuscript completed in December 2024

This document has been prepared for the European Commission however it reflects the views only of the authors, and the European Commission is not liable for any consequence stemming from the reuse of this publication. More information on the European Union is available on the Internet (<http://www.europa.eu>).

Luxembourg: Publications Office of the European Union, 2024

© European Union, 2024



The reuse policy of European Commission documents is implemented based on Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39).

Except otherwise noted, the reuse of this document is authorised under a Creative Commons Attribution 4.0 International (CC-BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed provided appropriate credit is given and any changes are indicated.

For any use or reproduction of elements that are not owned by the European Union, permission may need to be sought directly from the respective rightholders.

Print	ISBN 978-92-68-23177-7	doi:10.2767/4308607	KE-BN-24-001-EN-C
PDF	ISBN 978-92-68-13920-2	doi:10.2767/888580	KE-BN-24-001-EN-N
HTML	ISBN 978-92-68-13919-6	doi:10.2767/967925	KE-BN-24-001-EN-Q

European Commission

Directorate-General for Employment, Social Affairs and Inclusion

Labour Market and Wage Developments in Europe Annual Review 2024

ACKNOWLEDGEMENTS

This report was prepared in the Directorate-General of Employment, Social Affairs and Inclusion under the supervision of Mario Nava (Director-General), Andriana Sukova (Deputy Director-General), Barbara Kauffmann (Director, Employment and Social Governance, Analysis Directorate), Nathalie Darnaut (Head of Unit, Labour market and wages, Eurofound) and Imad Kanjou Augé (Deputy Head of Unit, Labour market and wages, Eurofound).

The main contributors were Alfonso Arpaia, Dorothee Bühler, Anita Halász, Marek Hlavac, Andreas Kappeler, Klemen Knez, Athanasios Manos, Victor Ruiz Salgado, Annachiara Tanzarella and Edouard Türkisch. They were supported by Sarpæl Seref, who provided statistical and editorial assistance. Andreas Kappeler and Frédéric Lagneaux provided editorial supervision.

The report has benefited from useful comments and suggestions received from many colleagues from the Directorate-General for Employment, Social Affairs and Inclusion, including Anais Gradinger and Kim Henriksson, as well as from the Directorate-General for Economic and Financial Affairs, and the Secretariat-General.

The analysis is based on statistical information available up to 31 October 2024, unless otherwise specified. Comments on the report would be gratefully received at the following e-mail address:

EMPL-F2-UNIT@ec.europa.eu

FOREWORD



In the past few years, we have witnessed a remarkably resilient EU labour market, with an all-time low unemployment rate and strong employment growth, despite a difficult economic context and heightened geopolitical tensions. More recently, this strong labour market performance has translated into favourable wage developments, with gradual increases in real wages towards the end of 2023. This has allowed households to regain some of the losses in purchasing power experienced over previous years.

However, four main challenges that could undermine European labour markets and resilience endure. First, labour and skills shortages remain acute, particularly in sectors which are key for the green and digital transitions, but also in education, care, construction and transport. As a consequence, we may experience slower adoption of new technology and reduce firms' demand for labour. Second, real wages are not yet back to their level of 2019 and many lower and middle-income households still feel the effects of the cost-of-living crisis. Third, the long-lasting weakness in productivity growth, innovation, and investment limits the room for wages to grow and could hinder future job creation, as emphasised in the Draghi Report on 'The future of European competitiveness'. Fourth, the last two decades have seen a nominal decline in the portion of national income allocated to employees as compensation. Thus, this raises questions on how to ensure a fair sharing of the burden of the remaining social challenges between firms and workers.

This year's report on Labour Market and Wage Developments in Europe sheds light on the key measures we must take to ensure that the EU labour market provides high quality jobs and fair wages for its citizens. Policies should focus on guaranteeing fair working conditions and adequate wages, while supporting workers to gain the skills they need, thereby boosting productivity and competitiveness. Equally important is the integration of those furthest away from the labour market – such as women, young people, persons with disabilities and those with a migrant background. We must also empower businesses to harness the full potential of new technologies, creating the conditions for strong labour demand and quality jobs. Moreover, adequate minimum wage protection and effective collective bargaining are essential, including to support low-wage earners.

The report provides an in-depth analysis of how the labour market participation of older people can be improved. Although their employment rate has increased markedly, even allowing for significant cross-country differences, it remains below that of prime-age workers, in particular for women and persons with disabilities. Projections show in particular that women who have been outside the labour market for a major part of their lives, often due to raising a family and caring responsibilities, will still represent a large share of the population of inactive non-retired older people by 2030. To address these issues, we need not only to adopt a more targeted and tailored approach to activation and skills policies, but we should invest in the provision of high-quality and affordable services, from childcare to long-term care for older people to address the root causes of the problem. Pension reforms that promote flexible yet fair retirement pathways that guarantee adequate incomes can also be a measure to encourage women to remain in employment longer. In addition, by providing flexible working arrangements, reasonable accommodation at work, and policies against age discrimination, older individuals can benefit from better employment and working conditions.

It is time to intensify our efforts to preserve our social model, including by supporting adequate wages, introducing effective and innovative policy solutions to keep the EU's labour market performing strongly, and boosting European competitiveness. The role of the EU remains critical in promoting fair wages, adequate working conditions, training and collective bargaining. These objectives will be at the core of the Quality Jobs and Skills agenda, a central priority of this new Commission's mandate.

Executive Vice-President Roxana Mînzatu
Social Rights and Skills, Quality Jobs and Preparedness

A handwritten signature in black ink, appearing to be 'RM', located to the right of the printed name and title.

CONTENTS

Foreword

Summary and main findings	1
1. General labour market conditions in the EU and its Member States	5
1.1. Introduction	5
1.2. Labour market developments in the EU and its Member States	5
1.3. Main drivers of recent labour market developments	8
1.4. Outlook and Major Challenges for the labour market	20
1.5. Policy Implications	26
1.6. Conclusions	27
References	29
Annex 1.1: Further analysis and selected graphs	35
2. Wages and labour costs developments in the EU and its Member States	41
2.1. Introduction	41
2.2. Wage developments and outlook	41
2.3. The lasting social effects of the high inflation period and fairness issues	47
2.4. Drivers of and scope for sustainable wage growth	55
2.5. Policy response	62
2.6. Conclusions	64
References	66
Annex 2.1: Selected graphs	72
3. Promoting the labour force participation and employment of older people in the EU	74
3.1. Introduction	74
3.2. The labour force participation and employment of older people across the EU	75
3.3. Participation of older individuals in training across the EU	82
3.4. Projection of future labour market activity and potential of older people	86
3.5. Policies to facilitate the employment of older people	90
3.6. Conclusion	95
References	97
Annex 3.1: Selected graphs	102
Annex 3.2: Multistage retirement projection model	106
Appendix: Statistical annex	109

LIST OF TABLES

1.1.	Unemployment, compensation per employee and GDP growth in the euro area and the EU	5
1.2.	Activity rates by level of education and citizenship	12
1.3.	Determinants of labour hoarding (panel regression)	40
2.1.	The three income deciles with lowest increase across 2022 and 2023 per Member State	72
2.2.	The income deciles with lowest increase per Member State for 2022 and 2023	73
3.1.	Expected increase (in millions) of active people aged 55 to 68 in the EU up to 2030 and 2040, by influencing factor	88
3.2.	Expected inactive retired people aged 55 to 68 in 2030 (in millions)	90
3.3.	Expected inactive non-retired people aged 55 to 68 in 2030 (in millions)	90
3.4.	Statutory retirement ages across Member States in 2022 by gender	105

LIST OF GRAPHS

1.1.	(a) Employment, GDP, hours worked and productivity in the EU in % and (b) annualised growth rates for GDP, employment and productivity in periods of positive GDP growth	6
1.2.	Unemployment rate in the EU	7
1.3.	Selected labour market indicators	8
1.4.	Activity rate (15-74) in the EU and the United States	9
1.5.	Growth of the labour force from 2019 to the first quarter of 2024 relative to 2015-2019 average (pps changes)	10
1.6.	Employment, unemployment, and the labour force (yearly changes in thousands)	11
1.7.	Labour force by country of citizenship (2015=100), yearly data	12
1.8.	Employment rate for non-EU citizens	13
1.9.	Employment growth (2021-2023) for native born and foreign population: 2021-2023 and employment share in shortages occupations (2023)	14
1.10.	The components of labour demand	16
1.11.	Measures of labour market tightness (%)	17
1.12.	Employment growth for sectors with high and low labour shortages: 2022Q2-2024Q1	17
1.13.	Beveridge curve (left panel), job finding and separation rates and matching efficiency (right panel)	18
1.14.	Unemployment by sector of last job and vacancies by sector, mismatch and reallocation index	20
1.15.	Profit margins and labour hoarding	21
1.16.	GDP per person employed, per hours worked, total factor productivity and capital intensity (1995=100)	23
1.17.	Shift-share analysis for EU labour productivity growth	25
1.18.	Labour shortages and labour hoarding	26
1.19.	Change in unemployment rate during different periods (pps relative to the start of each period)	38
1.20.	Job vacancy rate by country	38

1.21.	Macroeconomic skill mismatch indicator	39
1.22.	Contribution to economic growth in 2023 of hourly productivity, average hours worked and employment	39
2.1.	Nominal compensation per employee, annual percentage change	42
2.2.	Growth of negotiated wages and of wages in job postings (%), euro area	43
2.3.	Real wages per employee, annual percentage change	46
2.4.	Real wage changes (%) compared with pre-pandemic levels (2019)	47
2.5.	Real GDHI growth and its main components, EU	48
2.6.	Financial distress of workers	49
2.7.	In-work at-risk-of-poverty rate for employees	50
2.8.	Average change in the nationally equivalized income for the lower, middle and upper income deciles for 2021-2023 across Member States	51
2.9.	Minimum wage developments in Member States with statutory minimum wages	52
2.10.	Gap in wage growth relative to its benchmark (%)	56
2.11.	Inflation and ULCs	58
2.12.	Unit profits, year-on-year growth rate, EU-27	59
2.13.	ULCs, export market shares and unit profits across countries	61
2.14.	ULCs, wages and productivity across countries	61
2.15.	Compensation per employee in purchasing power standards (PPS)	72
2.16.	Wage levels (2021) and hourly growth rates (based on labour cost index)	73
3.1.	Activity rates by age in the EU-27 – percentage of the total population	75
3.2.	Employment rates of older workers (55-64 years old) across the EU (2023)	77
3.3.	Change in employment rates of older and prime-age workers (2009 to 2023)	78
3.4.	Inactivity rates of older people across Member States (2023)	80
3.5.	Activity rates of individuals aged 55 to 64 with various levels of disability, by Member State (2022)	81
3.6.	Number of inactive non-retired people in the EU in 2022, by gender, age and reason for inactivity	82
3.7.	Employment and unemployment rates of native and foreign-born individuals aged 55 to 64 (2023)	82
3.8.	Amount of education and training completed by working-age and older people in 2007 and 2022	83
3.9.	Main reasons for not participating in training and education among individuals wanting to participate (2022)	84
3.10.	Digital skills of older people in 2023: share of individuals aged 25 to 54 and 55 to 64 with basic or above-basic digital skills	85
3.11.	Share of retired and non-retired people in the EU in 2022 who are not willing to work, by age	86
3.12.	Share of inactive non-retired women aged 55 to 68 in the EU in 2022 (%)	87
3.13.	Model-based projection of the retired population in the EU by age	88
3.14.	Expected change from 2022 (in millions) in non-retired people in the EU	89
3.15.	Ten-year trend of the EU inactive non-retired population aged 55 to 68, with projection for 2030	89

3.16. Education and training participation rates of working-age and older people in 2007 and 2022 (%)	102
3.17. Average instruction hours of participants in education and training – working-age and older people in 2007 and 2022	102
3.18. Amount of education and training completed by individuals aged 55 to 64 and transition rates from unemployment to employment	103
3.19. Digital skills of older people in 2023: share of older people (aged 55 to 74) with at least basic digital skills, by education level	104
3.20. Skills mismatches and changes in the workplace in 2023	104
3.21. Future retirement age changes in Member States	106

LIST OF BOXES

1.1. Labour market outcomes of people who have fled the war in Ukraine to the EU	15
1.2. The link between productivity and employment growth	22
1.3. The determinants of the job separation rate	35
1.4. The determinants of firms' recent tendency to engage in labour hoarding	36
1.5. Measuring labour market mismatch and reallocation	37
2.1. Labour shortages and wages	44
2.2. Estimating non-compliance with minimum wages	53
2.3. Predicting wage developments based on macroeconomic fundamentals – a revised methodology	57
3.1. Factors affecting the employment of older people	76
3.2. Wages and their relation with the activation of older adults	79

SUMMARY AND MAIN FINDINGS

Since 2019, EU employment has increased by 5.5 million people despite economic challenges

In recent years the EU labour market has shown remarkable resilience amid challenges including the COVID-19 pandemic, Russia's war of aggression against Ukraine and the ensuing energy crisis, as well as ongoing structural changes linked to demographic change and the green and digital transitions. Since 2019, employment has increased by about 5.5 million people, whereas the labour force grew by roughly 4 million, resulting in a decline in unemployment by 1.4 million. The EU unemployment rate has hovered around an all-time low of 6% since early 2022 while in the euro area it has steadily declined, reaching a record low of 6.4%. Despite a substantial rise, the employment rate in the second quarter of 2024 was still about 2 percentage points below the 78% target for 2030 as set by the European Pillar of Social Rights Action Plan.

The increase in the EU labour force has been the main driver of employment growth

The labour supply has increased significantly in the post-pandemic period, with labour force growth accelerating from an average of 0.3% per year between 2015 and 2019 to nearly 1% in 2022 and 2023. This was driven by increases across all age groups and countries, with non-EU nationals contributing 1.24 million to the 2023 total labour force rise of almost 2 million people. In a context of prolonged labour shortages, non-nationals have helped alleviate labour and skill shortages. At the same time, firms have retained more workers than needed, probably in anticipation of a future economic recovery, despite the slowdown.

The labour market also seems to have benefited from some structural improvements...

The favourable developments in the labour market may also reflect structural improvements in its functioning. Notably, matching between job seekers and vacancies has improved, as evidenced by the low long-term unemployment rate. This partly mirrors the determined policy response during the COVID-19 pandemic that prevented the scarring effects of unemployment, as well as some closing of the gap between job seekers' skills and the needs of employers.

... but in the medium-term, low productivity growth could jeopardise these favourable trends

However, challenges remain that could undermine the currently favourable labour market trends and the EU's competitiveness. In the near future, declining profit margins and reduced vacancies may lower labour demand and raise unemployment. Moreover, the persistently low labour productivity growth in the EU undermines competitiveness, questions the capacity to finance the European social model, and could also hinder future job creation. In this context, the report by Mario Draghi on *The Future of European Competitiveness* emphasises substantial gaps in the EU's high-tech specialisation, innovation, and investment, particularly when compared to the United States. In addition, persistent labour and skills shortages, particularly in occupations relevant for the green and digital transitions, may slow technology adoption, increase costs and reduce labour demand. Finally, ageing may also hold back productivity growth and aggravate labour and skills shortages in the future.

Measures are needed for boosting productivity growth and tackling labour and skills shortages

To maintain strong labour market outcomes and boost sustainable growth, a well-designed mix of policies is needed, many of which are outlined in the European Pillar of Social Rights' action plan. A new industrial strategy aiming at fostering innovation, mobilising public and private investment and removing administrative barriers is crucial for reigniting productivity growth. Initiatives to promote innovation and improve infrastructure are already key components of Member States' Recovery and Resilience Plans. Moreover,

effective education and training systems are essential for upskilling and reskilling the workforce and supporting the adoption and diffusion of new technologies. In the context of an ageing population, harnessing the potential of underrepresented groups in the labour market and attracting talent from non-EU countries, particularly in shortage occupations, is also key to tackle labour and skills shortages, as emphasised in the EU action plan adopted in March 2024. Through the European Social Fund Plus+, the EU also supports investments in jobs and skills across Member States.

Real wages have rebounded since mid-2023 but social effects of the high inflation period persist

Nominal wage growth in the EU has been robust over the last 2 years but has started to moderate. On an annual basis it reached 5.0% in the second quarter of 2024 (4.3% in the euro area), which remains high, but below the rates reached in 2023. As a result, and also thanks to lower inflation, real wage growth, which had been negative since the end of 2021, turned positive again in the third quarter of 2023, reaching 2.4% year-on-year in the second quarter of 2024 (1.8% in the euro area). This has enabled real disposable household income to increase and households to recoup some of the purchasing power losses experienced since 2021. However, real wages in 2024 are still forecast to be 1.1% below their 2019 level in the EU. Many low- and lower middle-income households still feel the adverse effects of the high inflation period on their purchasing power. In particular, material and social deprivation and financial distress of workers remain elevated compared to levels before 2022.

Minimum wage increases have supported the low-wage earners' incomes

While income inequality remained broadly stable on average in the EU, in 2022 low- and middle-income households suffered from a sharper decline in real incomes than higher-income deciles did in most Member States. In contrast, in 2023 low-income households experienced smaller decreases in their real incomes than higher-income households did. This is notably thanks to the large increase in statutory minimum wages that helped mitigate real losses for low-wage earners.

Scope for wage increases may exist in some Member States in the short term...

Evidence points to some remaining room for wage increases in some Member States and sectors in the current context. Inflation expectations stay moderate, mitigating the risks of a wage-price spiral. In addition, corporate profits remain high in some sectors, despite their recent decline, suggesting that they may still be able to absorb some further wage expansion without fuelling inflation. Furthermore, wage moderation in the last decade in many Member States that faced competitiveness gaps resulted in some rebalancing in cost competitiveness, particularly in the euro area. Wage growth has also been below predictions based on developments in its main macroeconomic drivers (inflation, productivity growth, unemployment and trade) in about half of the Member States over the last 10 years. In some countries, further room for wage increases exists, which could help address remaining social challenges.

... but higher productivity growth is also needed to sustain stronger wage growth in the future

More specifically, high wage growth in recent years has raised cost competitiveness concerns in some Member States, including Bulgaria, Estonia, Croatia, Latvia, Lithuania, Luxembourg, Hungary and Romania, reducing their scope for further wage increases, unless productivity growth accelerates. On the other hand, some Member States, including Greece, Spain, Italy, Cyprus and Malta have shown favourable competitiveness dynamics, accompanied by high unit profits in some of them, which may give them some more room for wage increases in the short term. However, low

productivity growth and competitiveness concerns, if unaddressed, can weigh on sustainable wage growth over time in many Member States.

A well-designed combination of policies is needed to support fair and sustainable wage growth

To allow sustainable wage growth, policies should focus on boosting productivity and helping workers gain the skills needed to get higher wages, while supporting the most vulnerable. Well-functioning product and labour markets, as well as sound fiscal and monetary policies, are key in this context. It is also necessary to overcome the gap in high-tech specialisation, innovation and investment, and to reduce administrative burdens as well as barriers to the scaling-up of firms, as also highlighted in the report by Mario Draghi on *The Future of European Competitiveness*. Against this backdrop, the Clean Industrial Deal, announced in the political guidelines of President von der Leyen for the next European Commission, will support competitive industries and high-quality jobs. Moreover, enhancing the bargaining power of workers, including through effective collective bargaining, will help workers reap the benefits of productivity gains. At the same time, promoting adequate minimum wage protection, in line with the directive on adequate minimum wages in the EU, will continue to play a key role in supporting the purchasing power of low-wage earners.

Supporting the activation of older people can contribute to mitigating the impact of an ageing workforce

The EU labour supply is expected to decline by 0.3% per year until 2070, as a result of population ageing. If left unaddressed, this trend may put increasing pressure on public budgets and further exacerbate labour shortages, thereby weakening the EU's competitiveness and hampering the twin transition. Activating underrepresented groups in the labour market, including older people, can help to mitigate the adverse impacts of a declining workforce. The activity and employment rates of persons aged 55 to 64 have increased significantly since 2009 (both by 20 percentage points). Nevertheless, they are still lower than those of prime age workers (by 20 and 18 percentage points, respectively), suggesting that there remains untapped potential for further activation.

Older persons are underrepresented in the EU labour market for a variety of reasons

The increase in older workers' employment has been driven mainly by higher retention rates, while their hiring rates have remained low. Older people are less likely to participate in the labour force not only due to illness and disability, but also because of care responsibilities and workplace-related factors. Those with low educational attainment and people with disabilities are more likely to be inactive. Moreover, there is a large scope for activating older women, given the persistence of gender gaps in labour force participation and employment. Closing these gaps would also help to reduce the significant gender gap in pensions.

Adequate pension reforms can encourage older workers to stay employed for longer

In addition to raising the statutory retirement age and restricting the pathways to early retirement, reforms that provide financial pension benefits for those working beyond the retirement age and more flexibility to combine work and retirement can also promote longer working lives. Such adjustments to retirement systems should take into account gender, disability, and health, as well as the degree of job strain in certain occupations. Projections suggest that, mostly due to ageing and the anticipated impact of already adopted pension reforms, there will be an increase of 6 million people in the active population aged 55 to 64 and of 2.8 million in the active population aged 65 to 68 in the EU by 2030. Longer working lives promoted by flexible

retirement options can contribute to improved pension adequacy, and thus also to quality of life in older age, as well as to intergenerational learning.

Policies targeting the most inactive groups are key to activating older people

Projections also show that women who have been outside the labour market for a major part of their lives, often due to informal caring responsibilities, and older adults affected by an illness or disability will still represent a large share of the population of inactive non-retired older people by 2030. Therefore, activation policies should be tailored to individual circumstances (as suggested in the Council Recommendation on the integration of the long-term unemployed into the labour market). In particular, policies that improve women's labour market integration and support them to remain active after childbirth would also contribute significantly to higher employment rates of older women (e.g., the Council Recommendation on early childhood education and care). Activation policies targeting older people, particularly those with disabilities or severe illness, should consider cases where further labour market activity is not possible or desired.

Better working conditions and tailored training can support the employment of older workers

Several policies can empower older generations to remain active for longer, as outlined in the Demography Toolbox and in the Action Plan on labour and skills shortages in the EU. Other policies also aim to address the specific vulnerabilities and barriers they encounter. These include measures to ensure flexible working arrangements and reasonable accommodations at work for people with health problems or disabilities, in line with the EU Framework Directive on occupational safety and health. In this regard, collective bargaining can further promote adequate working conditions, helping to extend working lives. In addition, the employability of older people can be supported by tailored and inclusive training including through Individual Learning Accounts in accordance with the corresponding Council Recommendation. Furthermore, the enforcement of strong anti-discrimination policies, as required by the Employment Equality Directive, could also contribute to raising companies' interest in hiring older workers.

1. GENERAL LABOUR MARKET CONDITIONS IN THE EU AND ITS MEMBER STATES

1.1. INTRODUCTION

In 2023, EU economic growth came to a standstill, as a result of tightening financial conditions, the weakening of trade flows and high, albeit declining, inflation rates. Economic activity decelerated sharply in the first half of the year. Gross domestic product (GDP) growth expanded by 0.1 % in the third quarter and stagnated in the fourth quarter, avoiding a technical recession (defined as two consecutive quarters of negative growth) by a narrow margin; growth in the euro area followed a similar pattern. On a yearly basis, growth dropped from 3.4 % in 2022 to 0.4 % in 2023 (from 3.5 % to 0.4 % for the euro area) (Table 1.1).

In 2024, the EU economy is expected to perform better. In the first half of 2024, economic growth gained momentum with GDP expanding by 0.3 % in the EU and the euro area in both the first and second quarters. Annual GDP growth in the EU is projected to reach 0.9 % in 2024 ⁽¹⁾ and improve to 1.5 % in 2025. Geopolitical tensions and the persistent inflation in the United States are near-term downside risks for inflation and economic growth, while private consumption and external demand are expected to support growth. The labour market is expected to remain strong with unemployment hovering around its historically low rate of 6 % in both years.

Table 1.1: **Unemployment, compensation per employee and GDP growth in the euro area and the EU**

		2022	2023	Quarter over same quarter of the previous year								Quarter over previous quarter, % and pps									
				2022Q2	2022Q3	2022Q4	2023Q1	2023Q2	2023Q3	2023Q4	2024Q1	2024Q2	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2	2023Q3	2023Q4	2024Q1	2024Q2
Unemployment rate	EA	6.8	6.6	-1.3	-0.8	-0.5	-0.3	-0.3	-0.2	-0.2	-0.1	0.0	-0.1	0.0	-0.1	-0.1	-0.1	0.1	-0.1	0.0	0.0
	EU	6.2	6.1	-1.1	-0.7	-0.4	-0.2	-0.2	-0.1	0.0	0.0	0.0	-0.1	0.0	-0.1	0.0	-0.1	0.1	0.0	0.0	-0.1
Unemployment growth	EA	-11.1	-2.1	-13.8	-9.1	-5.3	-2.1	-2.9	-1.8	-1.3	-0.1	1.1	-0.2	-0.2	-0.8	-0.8	-1.1	1.0	-0.4	0.4	-0.9
	EU	-11.3	-1.2	-14.1	-9.2	-5.1	-2.0	-1.9	-0.8	0.1	1.1	0.3	-0.7	-0.2	-0.5	-0.6	-0.7	1.0	0.4	0.4	-1.0
Growth of nominal compensation per employee	EA	4.5	5.1	4.6	4.2	5.0	5.4	5.5	5.3	5.0	4.8	4.3	0.8	1.5	1.6	1.4	0.8	1.3	1.3	1.2	0.4
	EU	4.8	5.6	4.6	4.4	4.9	5.6	6.1	5.9	5.9	5.6	5.0	0.8	1.5	1.6	1.7	1.2	1.3	1.6	1.4	0.6
GDP growth	EA	3.5	0.4	4.1	2.8	1.9	1.4	0.5	0.0	0.1	0.5	0.6	0.9	0.6	-0.1	0.0	0.1	0.0	0.1	0.3	0.2
	EU	3.4	0.4	4.1	2.8	1.7	1.2	0.5	0.1	0.4	0.6	0.8	0.8	0.5	-0.2	0.1	0.0	0.2	0.1	0.3	0.3
Employment growth	EA	2.4	1.4	2.8	1.9	1.7	1.4	1.3	1.3	1.1	0.9	0.5	0.3	0.4	0.4	0.3	0.2	0.3	0.2	0.1	0.1
	EU	2.2	1.1	2.6	1.7	1.5	1.4	1.0	1.1	1.0	0.8	0.5	0.2	0.4	0.3	0.2	0.2	0.3	0.3	0.1	0.1
Inflation	EA	8.4	5.4	8.1	9.3	10.0	8.0	6.2	4.9	2.7	2.6	2.5	0.7	0.6	0.3	0.5	0.3	0.2	-0.1	0.3	0.3
	EU	9.2	6.4	8.8	10.3	11.0	9.4	7.2	5.6	3.4	2.8	2.6	0.9	0.7	0.4	0.6	0.3	0.3	-0.1	0.4	0.3
Inflation (Core)	EA	4.0	5.0	3.7	4.4	5.1	5.5	5.5	5.1	3.7	3.1	2.8	0.6	0.4	0.4	0.4	0.5	0.1	0.0	0.3	0.5
	EU	4.7	5.7	4.4	5.3	6.1	6.5	6.3	5.7	4.3	3.5	3.1	0.7	0.5	0.4	0.5	0.6	0.2	0.1	0.3	0.5

(1) For the unemployment rate changes are in percentage points (pps). For GDP, Q2 2024 data refer to Eurostat flash estimate. EA: euro area; Q1: first quarter; Q2: second quarter; Q3: third quarter; Q4: fourth quarter.

Source: Eurostat, National accounts, and Labour Force survey: (une_rt_q; namq_10_gdp) (nama_10_a10_e) (prc_hicp_manr) and (prc_hicp_mmor).

This chapter reviews the recent labour market developments. Section 1.2. covers key labour market developments in the EU and its Member States. Section 1.3. analyses the main drivers, including labour demand, labour supply and the process of matching vacant jobs with job seekers. Section 1.4. puts the current developments into perspective by discussing the sustainability of low unemployment without addressing the major challenges of low productivity growth and labour and skills shortages ⁽²⁾. Section 1.5. discusses the implications for policy and Section 1.6. concludes.

1.2. LABOUR MARKET DEVELOPMENTS IN THE EU AND ITS MEMBER STATES

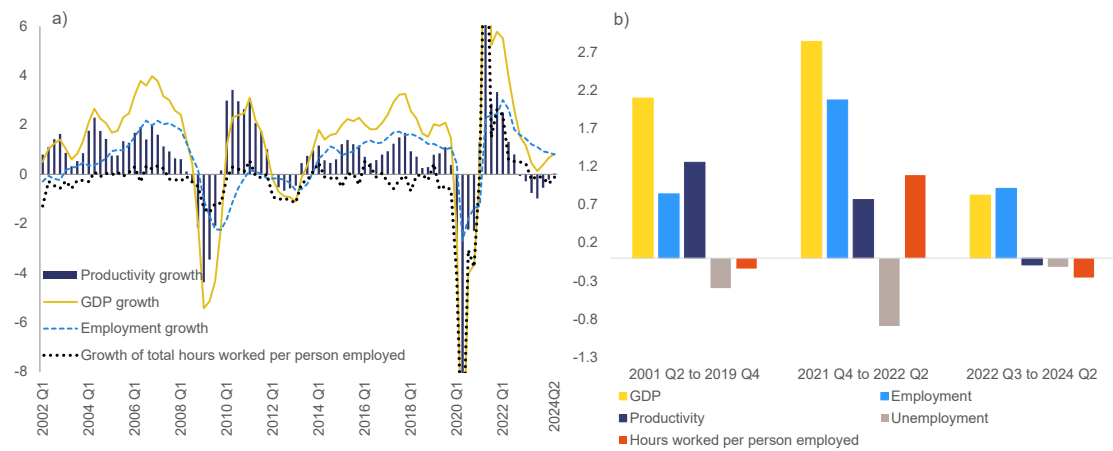
Despite sluggish economic growth in 2023, the labour market remained strong. After a temporary dip in the second quarter of 2023, employment growth rebounded on a quarter-on-quarter basis reaching 0.3 % in the third quarter and 0.2 % in the fourth quarter (0.2 % and 0.3 % for the euro area). Yearly

⁽¹⁾ European Commission: Directorate-General for Economic and Financial Affairs (2024).

⁽²⁾ European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2022) and European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2023a) provide a comprehensive analysis of the macro- and micro drivers of labour shortages. European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2023a) identifies the occupations and sectors with persistent labour shortages at the EU level.

employment growth declined slightly from 1.3 % in the fourth quarter of 2022 to 1.1 % in the fourth quarter of 2023, still above pre-pandemic levels (Table 1.1 and Graph 1.1 a and 1.1 b). Consequently, over 2.6 million jobs were created in the EU in 2023 (2.4 million in the euro area). By the last quarter of 2023, the employment rate (20-64) hit a record of 75.5 % (74.9 % for the euro area), and the activity rate rose to 80.2 %, up by 0.7 percentage points (hereafter pps) compared with the previous year (75.5 % for the euro area). This good labour market performance also continued in the first half of 2024, with the employment rate reaching 75.8 % in the second quarter of 2024 (75.3 % in the euro area).

Graph 1.1: (a) Employment, GDP, hours worked and productivity in the EU in % and (b) annualised growth rates for GDP, employment and productivity in periods of positive GDP growth



Note: (b): average annualised growth rates over the period, excluding quarters when GDP was negative quarter on quarter. This excludes recessions, defined as two consecutive quarters of negative growth. For the unemployment rate is in pps changes. Q1: first quarter; Q2: second quarter; Q3: third quarter; Q4: fourth quarter.

Source: Eurostat, National accounts, GDP and main components (output, expenditure and income) (nama_10_gdp) and Employment by A*10 industry breakdowns (nama_10_a10_e).

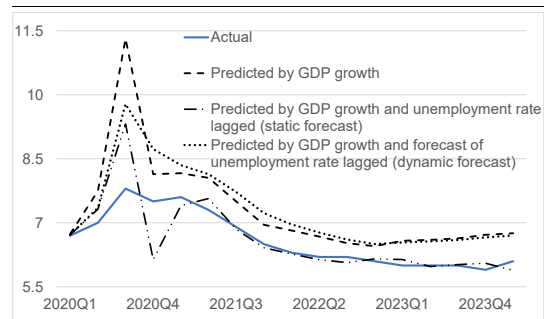
The rise in employment has not been accompanied by an increase in the hours worked per worker. The recovery of hours worked per person employed has been only partial following the significant drop during the pandemic recession. By the end of 2023, hours worked per worker were about 1 % lower than in 2019, representing a 4.5 hours annual decline per person since the pandemic; the drop is more pronounced in the euro area, where hours worked fell by 1.6 % over the same period, corresponding to a 6-hour annual decrease. Most of this reduction was driven by changes within specific groups, while the growing share of the service sector and the higher proportion of women in employment played a more limited role. The reduction in hours worked is a common pattern across sectors, with more significant declines in the euro area particularly in wholesale and retail trade, transport and hospitality, as well as information and communication technology (ICT) and finance and professional and technical services. This decline primarily reflects workers’ preferences ⁽³⁾.

⁽³⁾ European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2023a) and Astinova (2024). The decline in average hours worked has been most pronounced among the young, men and men with young children. The within-group declines accounted for 80 % of the total decline in the hours worked per worker between 2003 and 2019. Hours per worker have fallen more in European countries where the average hours were initially longest and where the highest growth rates in GDP per capita were experienced (e.g. Czechia, Latvia, Hungary and Slovenia); this suggests that increased income and wealth are the main forces behind the reduction in the average hours worked. European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2023b) shows that those facing difficulties in making ends meet would like to work more hours, while workers with higher levels of qualifications would, on average, prefer to work fewer weekly hours. Those working longer hours tend to report more job strain than other workers.

The unemployment rate is lower than predicted based on GDP growth.

In September 2024, it stood at a record low of 5.9 % (6.3 % in the euro area), unchanged for almost two years (Table 1.1), compared with 6.5 % in the fourth quarter of 2019 (7.4 % in the euro area). Consequently, the number of unemployed people in March 2024 was 13 million, one million fewer than in December 2019. The unemployment rate was 0.6 pps lower than anticipated based on the statistical relationship between unemployment and growth (Graph 1.2) ⁽⁴⁾. This better-than-expected performance is driven by favourable labour supply and labour demand conditions, but also reflects a more persistent decline ⁽⁵⁾. Unlike past crises, where unemployment remained persistently high, the rise during the COVID-19 pandemic was also limited and short-lived across all age groups (see Graph 1.19 in the Annex) ⁽⁶⁾.

Graph 1.2: Unemployment rate in the EU



Note: Prediction based on Okun's law over the period Q2 2001-Q42019. Q1: first quarter; Q2: second quarter; Q3: third quarter; Q4: fourth quarter.

Source: European Commission based on Eurostat data.

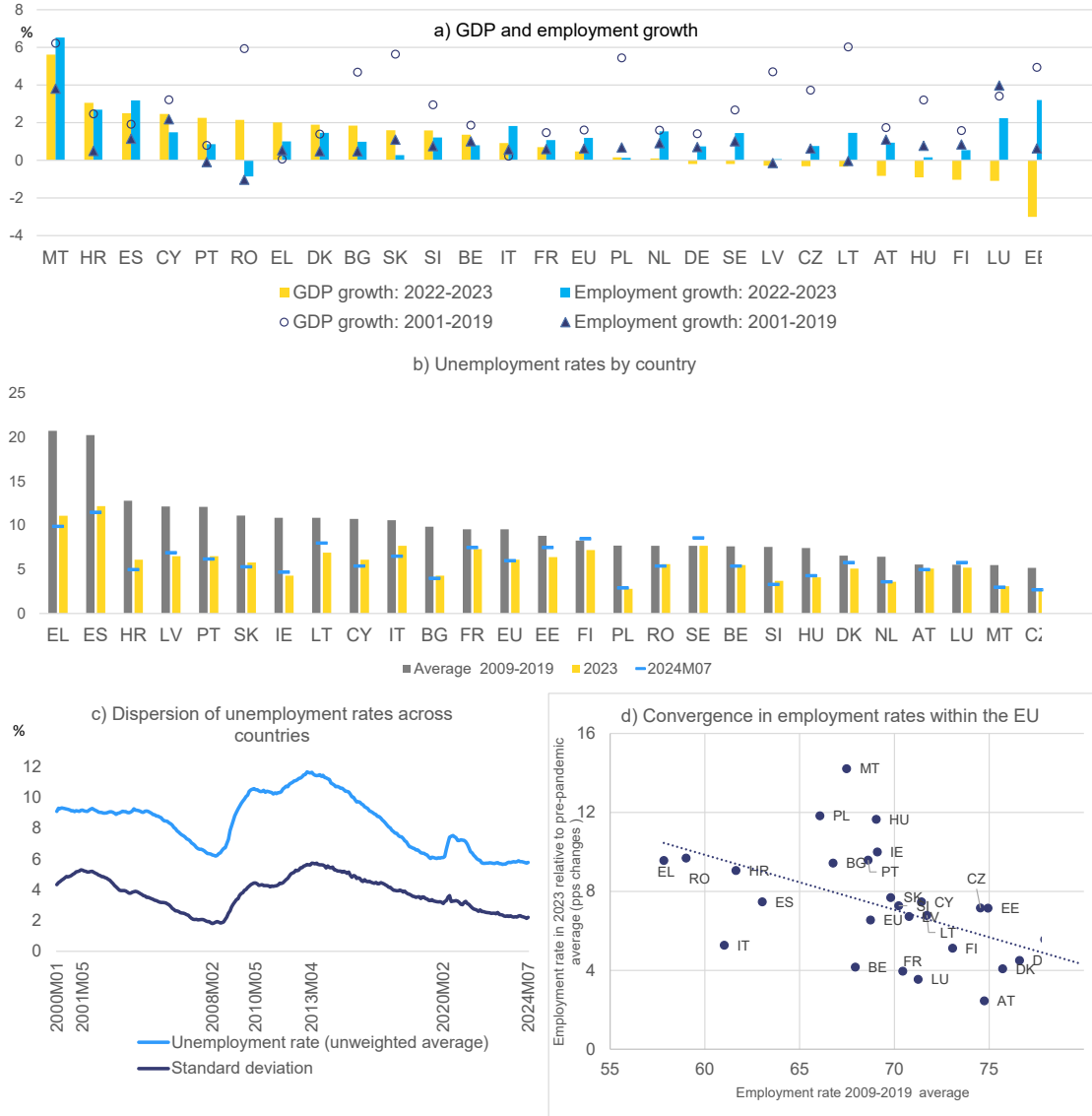
In 2023, the labour market performed well in nearly all EU Member States. Employment growth exceeded the 2001-2019 trend by 2 pps in nine countries but fell short in eight (Graph 1.3 a). Employment rates showed upward convergence over time, with more significant increases in countries with low pre-pandemic rates (Graphs 1.3 c-d). The unemployment rate declined in 12 Member States in 2023, while it increased in 14, notably Denmark, Estonia, Finland, and Sweden. Despite this, unemployment rates remained at historical lows in most Member States and continued to diminish in many of them in early 2024 (Graph 1.3 b). Consequently, the dispersion in unemployment rates within the EU decreased, nearing the low level seen before the 2008-2009 crisis by early 2024 (Graph 1.3 c). This upward convergence mainly reflects declines in Greece and Spain, which were less affected by the energy crisis than many other countries, although their unemployment rates remain above the EU average.

⁽⁴⁾ The difference between that static and the dynamic forecasts suggests that the decline in the unemployment rate has become more persistent than predicted by GDP growth, hinting at a possible negative hysteresis (low levels of unemployment can become entrenched and persist) and explaining its sluggishness.

⁽⁵⁾ This is visible when comparing the dynamic forecast with the static forecast.

⁽⁶⁾ At the end of 2023, the unemployment rates for young (15-24), prime-age (25-54) and older workers (55-64) stood at 15 %, 5.5 % and 6.6 %.

Graph 1.3: Selected labour market indicators



Note: Unemployment rates are harmonised, seasonally adjusted monthly figures (une_rt_m). Employment rate (20-64), (lfsi_emp_a); M1: January; M2: February; M4: April; M5: May; M7: July.
 Source: Eurostat, National accounts (namq_10_gdp); Labour Force Survey (LFS); Job Vacancy Statistics (JVS).

1.3. MAIN DRIVERS OF RECENT LABOUR MARKET DEVELOPMENTS

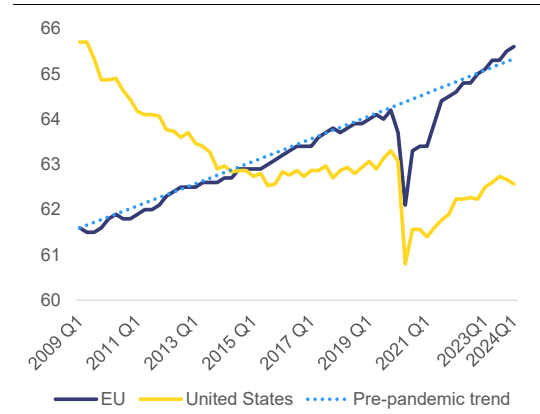
The strong labour market performance is due to favourable developments in labour demand and supply, as well as improved matching. After the pandemic recession, labour demand (the sum of employment and vacancies), grew more rapidly than supply, which continued to expand despite adverse demographic trends. However, with the economic slowdown of 2023, labour demand began to ease, dropping from a growth rate of 4 % in the first quarter of 2022 to 0.7 % in the fourth quarter of 2023, while supply continued to increase at a steady rate. Despite easing labour market tightness, labour shortages remained relatively high. In this context, the stable low unemployment probably reflects improved job matching. The next subsection will explore the factors behind the resilience of labour supply and demand.

1.3.1. Labour supply has been sustained mainly by third country nationals

A notable post-pandemic feature is the resilience of the EU activity rate compared to the United States. The activity rate remained strong and continued to improve through 2023 (Graph 1.4). By the first quarter of 2024, the EU activity rate was 0.3 pps above its pre-pandemic trend (0.4 pps for the euro area), while the US activity rate remained well below. Since the activity rate can rise with a declining working-age population, it is more informative to look at the labour force as the measure of activation.

The rise in the labour force has underpinned the growth in employment. For the third consecutive year, the expansion of the labour force has been the primary driver of employment growth (Graph 1.6 a). Post-pandemic, the labour force grew nearly 1 % annually between 2022 and 2023, up from 0.3 % from 2015 to 2019 ⁽⁷⁾. Since 2020, employment has risen by nearly 9 million people due to a 6.9 million increase in the labour force and a 2 million decrease in unemployment. The rising participation rate also suggests continued job searching despite the slowdown ⁽⁸⁾. The labour force increase was broad-based across countries, but was notably strong in the Baltic countries, Ireland, Greece, Spain, France, Italy, and Romania (see map in Graph 1.5). By early 2024, the labour force had only declined in Croatia, Latvia, and Slovakia ⁽⁹⁾.

Graph 1.4: Activity rate (15-74) in the EU and the United States



Note: The activity rate is the share of the population aged 15-74 who are either employed or actively searching for a job

Source: Eurostat, Labour Force Survey (LFS) (lfsi_emp_q) and US BLS.

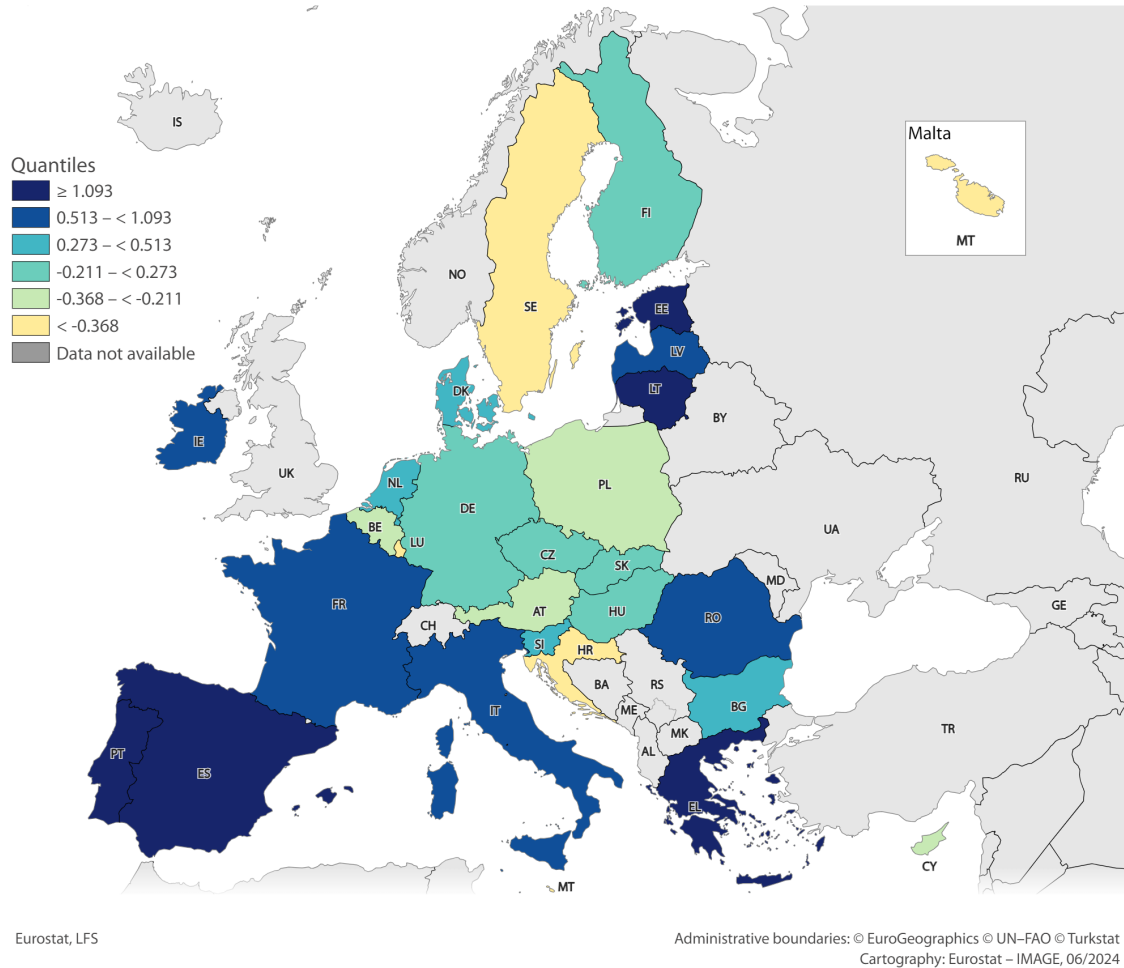
⁽⁷⁾ Between 2015 and 2019, the labour force increased by 696 000 per year; between 2019 and 2023, it grew by one million per year. See also Chapter 3.

⁽⁸⁾ In 2023, about 10 % of the inactive population wanted to work but were outside the labour force because they believed that no job was available. This is the lowest rate since early 2000s and 17 pps below the largest rate reached in 2014.

⁽⁹⁾ However, in 2023 there is a break for Denmark, Spain, France, and Croatia.

Graph 1.5: Growth of the labour force from 2019 to the first quarter of 2024 relative to 2015-2019 average (pps changes)

Growth of labour force in 2019-2024Q1 relative to 2015-2019 average
 Percentage point changes

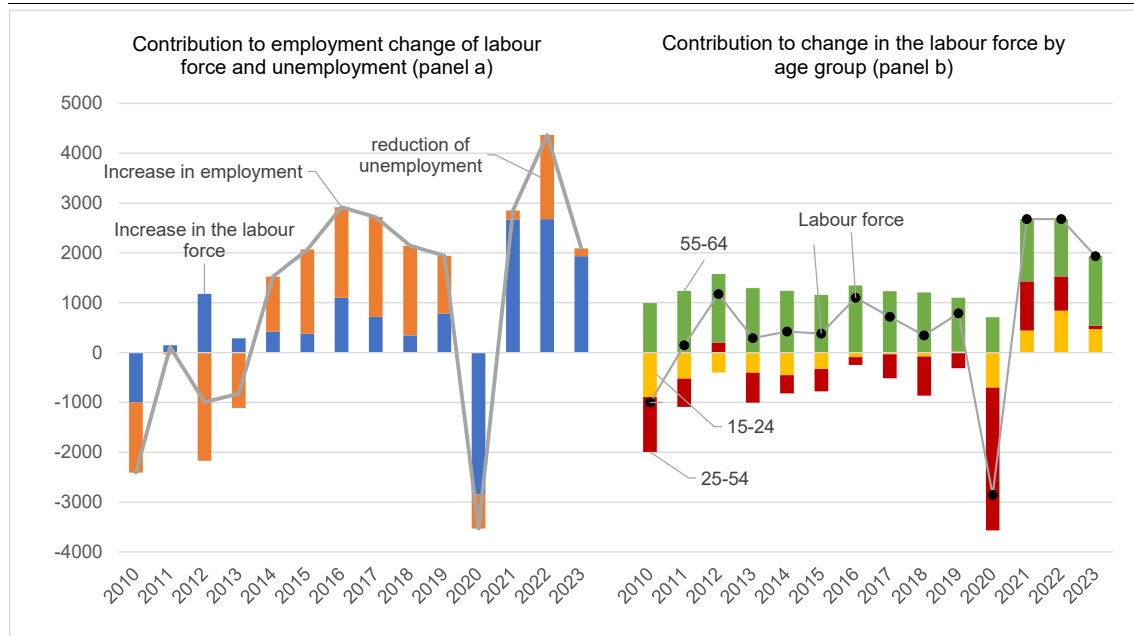


Note: The chart shows the quantile of the distribution of the growth rates relative to the 2015-2019 trend.

Source: Own calculations based on Labour Force Survey (LFS).

Until 2019, the rise in participation among older workers was the only contributor to labour force growth but, since then, young people have also contributed. Between 2010 and 2019, older workers (aged 55-64) added 11.2 million to the labour force, while the number of young and prime-age workers declined by 2.3 and 3.5 million respectively. During this period, the overall labour force grew primarily due to the increased participation of older workers (Graph 1.6 b). From 2019 to 2023, older workers remained the main driver of labour force growth – adding about 1.2 million people yearly (Graph 1.6 b). This growth more than offset the decline in the labour force of prime age workers, which decreased by 280 000 people per year during this period, a slight improvement compared to the annual decline of 390 000 per year recorded between 2010 and 2019. As for young workers, a turning point occurred as from 2021, as their labour force began to grow likely driven by increased migration flows, reaching 19.3 million in 2023 compared to 17.6 million in 2020. As a result of these developments, by the last quarter of 2023, the participation rate for the 20-64 age group reached its highest level since the first quarter of 2000, at 80.2 %.

Graph 1.6: **Employment, unemployment, and the labour force (yearly changes in thousands)**



Source: Eurostat, Labour Force Survey (LFS) (lfsi_emp_d).

The surge of non-EU citizens in the labour force has been an important driver of the overall increase in the EU labour force. As in many other advanced economies, migration flows in the EU reached all-time high levels in 2022 (latest available year) ⁽¹⁰⁾. On average at the national level, total inflows of working-age individuals ⁽¹¹⁾ were primarily driven by non-EU nationals, at 49 %, followed by EU mobile workers at 27 % and returning nationals at 23 % ⁽¹²⁾. Consequently, in 2023 non-EU nationals accounted for 64.1 % of the total increase in the EU labour force, while foreign EU residents and nationals contributed by 10.7 % and 24 % respectively ⁽¹³⁾. The increase in the labour force of non-EU citizens between 2019 and 2023 was mostly driven by prime age workers ⁽¹⁴⁾. Before the pandemic, the labour force of non-EU citizens was growing faster than that of national citizens, which was largely stagnant. This trend accelerated after the pandemic, driven primarily by non-EU citizens (Graph 1.7), with no significant differences between the EU and the euro area. This increase partly reflects the

⁽¹⁰⁾ According to the OECD (2023a) in 2022, migration flows in OECD countries reached an all-time high of 6.1 million new permanent migrants (half of whom were in the EU). This corresponds to a 26 % increase year on year and a 14 % increase compared with 2019. For the EU, the yearly increase in permanent migration was 24.2 %. Most of the increase was driven by the increase in humanitarian migration (excluding Ukrainian refugees) and labour migration. Temporary labour migration to OECD countries went above pre-pandemic levels. More than 2.4 million work permits and authorisations were granted in OECD countries (excluding Poland) representing a 77 % year-on-year increase. Meanwhile, Poland registered about 2 million requests for different types of work authorisations (including renewals), which also corresponds to a record high.

⁽¹¹⁾ The sum of those in and out of the labour force equals the working age population.

⁽¹²⁾ Returning nationals are EU citizens returning to their country of citizenship. An estimated 656 000 movers returned to their countries of origin in 2021, an 11 % increase compared with 2020 (European Commission: Directorate-General for Employment, Social Affairs and Inclusion, 2024).

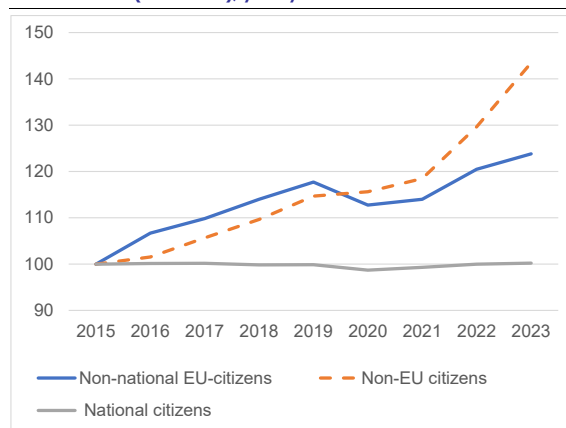
⁽¹³⁾ In 2023, the total labour force increased by 1.9 million, including an increase of 1.2 million among non-EU nationals and 475 000 among nationals.

⁽¹⁴⁾ Between 2019 and 2023, the non-EU labour force increased by 2.6 million people, while the EU foreign and the native labour force grew by 380 000 and 330 000, respectively. According to LFS, in 2023 the non-EU labour force represented 6.1 % of the total labour force.

resurgence of migration flows after the pandemic, particularly the large influx of Ukrainian refugees, who were mostly women ⁽¹⁵⁾.

The increase in participation of highly educated people was higher among the foreign-born population than in the domestic population. Low- and medium-skilled non-national EU citizens (individuals born in one Member State and employed or looking for a job in another) generally have higher participation rates than national citizens. In contrast, medium- and, especially, high-skilled non-EU citizens have lower activity rates. This highlights the challenges of integrating people with migrant backgrounds into the labour market ⁽¹⁶⁾. For EU citizens, higher activity rates reflect the significant number of mobile workers in countries with strong labour markets, such as Germany, and high demand in seasonal activities such as tourism and construction ⁽¹⁷⁾. Aggregate figures mask differences by level of education (Table 1.2). The activity rates are similar for highly educated individuals, regardless of origin, but lower for national individuals with secondary education compared with those born in another EU country. Conversely, the activity rate for low-skilled national citizens is almost 10 pps lower than for the equivalent group born abroad.

Graph 1.7: Labour force by country of citizenship (2015=100), yearly data



Note: Active population (15-64) (lfsa_agan). The LFS provides the following aggregates: 1) EU27 except reporting country; 2) non-EU27 countries nor reporting country; 3) reporting country; 4) stateless. Following Eurostat explanatory notes, we call 1) and 2) respectively non-national EU-citizens and non-EU citizens.

Source: Eurostat, Labour Force Survey (LFS).

Table 1.2: Activity rates by level of education and citizenship

	Foreign born EU		Third-country nationals		Domestic born	
	pps changes 2015-2023	2023 (%)	pps changes 2015-2023	2023 (%)	pps changes 2015-2023	2023 (%)
Total	2.3	80.2	2.	68.5	3.3	75.3
Less than primary, primary and lower secondary education	2.6	69.8	0.5	60.2	-0.2	50.8
Upper secondary and post-secondary non-tertiary education	1.1	81.9	0.7	73.5	1.9	77.2
Tertiary education	3.2	89.4	2.6	77.4	2.2	90.5

Source: Eurostat, Labour Force Survey (LFS) lfsa_argaedn).

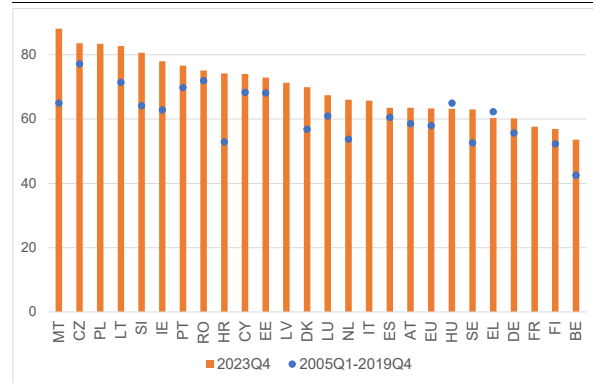
⁽¹⁵⁾ Berson, C. and V. Botelho (2023). While it is not clear if the recent arrivals of Ukrainians are included in the EU LFS statistics, the available evidence suggests that their socio-demographic characteristics favour a faster labour market integration than other refugees (Bansak et al. 2023).

⁽¹⁶⁾ In 2021, more than one-quarter of migrants reported facing obstacles to finding a suitable job. The most frequently cited barriers included host country language skills, recognition of formal qualifications obtained abroad, and the absence of suitable job opportunities (European Commission (2023b), Chapter 6 of Employment and Social Developments in Europe).

⁽¹⁷⁾ The labour market situation of intra-EU mobile workers is extensively analysed in the European Commission Annual Report on Intra-EU Labour Mobility 2023 (European Commission: Directorate-General for Employment, Social Affairs and Inclusion, 2024).

The increase in the labour supply of foreign workers was matched by a significant rise in their employment rates. In 2023, there were 7.7 million non-national EU citizens and 12.9 million non-EU citizens in the labour force, accounting respectively for 3.6 % and 6 % of the total. In 2010, these figures were 2.5 % and 4.4 % of the total labour force. The employment rate for non-national EU workers increased sharply from an average of 71 % in 2009-2019 to 77.6 % by the end of 2023, and the rate for non-EU citizens rose from 57 % to 63 %. All Member States, with the exception of Greece, and Hungary, saw the employment rate of non-EU nationals exceed its pre-pandemic average in the last quarter of 2023 (Graph 1.8). The gap in employment rate between foreign-born and native-born individuals narrowed significantly in 16 Member States⁽¹⁸⁾. Most of the Ukrainian refugees had relatively better labour market outcomes than most other refugee groups (Box 1.1)⁽¹⁹⁾.

Graph 1.8: Employment rate for non-EU citizens



Source: Eurostat, Labour Force Survey (LFS) (lfsq_ergan).

Employment of foreign-born individuals is expanding in occupations where employment of native-born workers is also growing, but it is doing so at a faster pace. According to the International Standard Classification of Occupations⁽²⁰⁾, employment growth among foreign-born individuals is higher in occupations such as professionals, service and sales workers, and technicians and associate professionals. These categories include 20 of the 42 occupations with persistent labour shortages listed in the draft EU talent pool regulation⁽²¹⁾. Employment growth is also strong in these occupations among the native population, indicating significant complementarities between foreign- and native-born employment in occupations with persistent labour shortages (Graph 1.9)⁽²²⁾. However, in other high-shortage occupations - such as plant and machine operators, crafts and related trades, and elementary occupations - foreign-born employment has risen while native-born employment has declined. The share of employment in shortage occupations is high in craft and related trades, elementary occupations and plant and machine operators; in these sectors, the difference in employment growth between foreign-born and native-born is most pronounced.

This outcome may derive from multiple mechanisms at play. Foreign-born workers may fill positions where demand exceeds the supply of native workers. This could occur if an influx of foreign labour lowers wages in certain occupations, making them less attractive to native workers⁽²³⁾. Alternatively, low and stagnant wages in some sectors may prompt nationals to seek opportunities elsewhere, regardless of foreign labour supply changes. Moreover, in many EU countries, wages are governed by multi-year collective agreements that limit short-term adjustment of wages to labour market changes. Finally, the differing growth patterns between nationals and non-nationals in elementary and craft-related occupations

⁽¹⁸⁾ These are Belgium, Denmark, Ireland, France, Croatia, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Austria, Poland, Slovenia and Slovakia, Finland, and Sweden.

⁽¹⁹⁾ OECD and European Commission (2023).

⁽²⁰⁾ In the International Classification of Occupations (ISCO-08), *Occupation* refers to the kind of work performed in a job. The concept of *occupation* is defined as a set of jobs whose main tasks and duties are characterized by a high degree of similarity. A *job* is a set of tasks and duties performed, or meant to be performed, by one person, including for an employer or in self employment. Therefore, there is a tight relation between occupations and tasks.

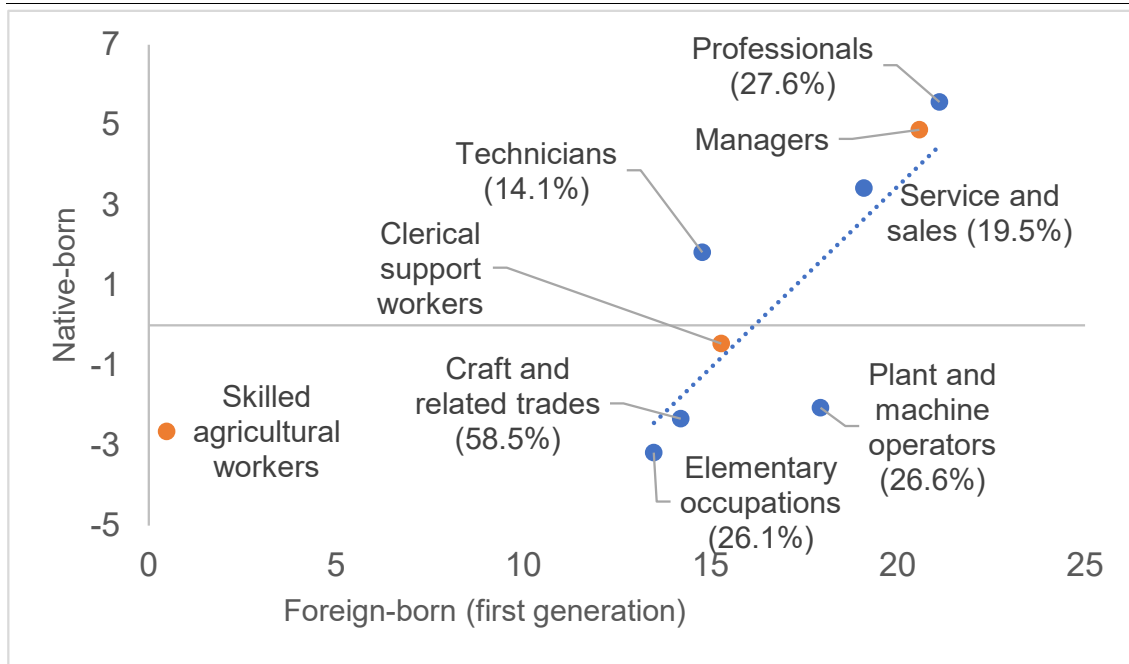
⁽²¹⁾ See COM(2023) 716 final, “Annex to the Proposal for a Regulation of the European Parliament and of the Council establishing an EU Talent Pool”.

⁽²²⁾ The higher employment growth of foreign-born relative to native-born also reflects the smaller number of people employed in each category

⁽²³⁾ However, there is no concrete evidence of this wage effect, as comprehensive wage data is lacking across the EU.

reflect broader trends, such as rising education levels among nationals and the concentration of non-nationals in lower-skilled jobs, even when they are relatively qualified ⁽²⁴⁾.

Graph 1.9: Employment growth (2021-2023) for native born and foreign population: 2021-2023 and employment share in shortages occupations (2023)



Note: The percentages refer to the share of employment in 2023 in occupations with persistent labour shortages (at 4-digit) as identified in the draft EU talent pool regulation (as a percentage of total employment in the respective 1-digit occupational category).

Source: Eurostat, Labour Force Survey (LFS) (lfsa_egaisedm).

⁽²⁴⁾ According to Eurostat, in 2023 the over-qualification rate was 39.4 % for non-EU citizens compared with 20.8 % for nationals.

Box 1.1: Labour market outcomes of people who have fled the war in Ukraine to the EU

As of June 2024, the EU had over 4.3 million temporary protection beneficiaries, corresponding to about 1 % of total EU population. Around 2.5 million are aged 18-64, mostly women, often with children, or people over 60 since men aged between 18 and 60 are generally unable to leave the country. Women make up 70 % of Ukrainian beneficiaries in this aged group ⁽¹⁾. Germany, Poland and Czechia, host 61.4 % of the total, with 31.1 %, 22 % and 8.3 % (based on June data), respectively.

Ukrainian refugees generally have better integration prospects than previous groups. This is due to their relatively higher levels of education, strong social networks, and immediate access to employment. ⁽²⁾ In some host countries, over 60 % have a tertiary education. However, many work in hospitality, manufacturing, retail, construction and administrative roles often below their qualifications.

Employment rates among working-age temporary protection beneficiaries vary widely across the EU ⁽³⁾. According to the latest EMN-OECD report, in September 2023 over 40 % of the beneficiaries were employed in countries like Lithuania (66 %), Estonia (54 %), Czech Republic (48 %), the Netherlands (55 %) ⁽⁴⁾, and Luxembourg (41 %). In Germany, the rate was 25 % ⁽⁵⁾, while in Poland the employment rate exceeded 60% earlier in the year. Belgium and Croatia had employment rates below 20 %.

Barriers to the integration of Ukrainians in the EU labour force remain. A 2023 survey by the International Organization for Migration found that 48 % of those not employed and not looking for a job are out of the labour market due to caregiving duties. Among the jobseekers, language barriers are the most common issue, followed by a lack of local jobs, difficulties in reconciling family duties and working arrangements, health conditions, qualification mismatches and discrimination.

The inflow of displaced Ukrainians has contributed to increase the EU labour force. Currently, the Labour Force Survey lacks reliable data as it focuses on private households, which do not yet fully capture Ukrainian refugees. Estimates, based on pre-displacement activity, suggest 70 % of working-age Ukrainians were active in the labour market before leaving. After displacement, labour market participation dropped slightly to 66 %. Applying these figures to temporary protection beneficiaries suggests that about 1.6 million Ukrainians were in the EU labour force in the first quarter of 2024. An earlier OECD estimate indicated that about 1.2 million Ukrainians contributed to the EU labour force by the end of 2022.

⁽¹⁾ Source: Eurostat

⁽²⁾ To facilitate the entry and stay of Ukrainians fleeing the war, the Temporary Protection Directive has been enacted for the first time. Beneficiaries receive residence permit for the duration of the protection and the right to work and access vocational training.

⁽³⁾ People from Ukraine represented 98 % of those benefiting from temporary protection by the end of December 2023.

⁽⁴⁾ In the Netherlands data refer to beneficiaries of Temporary Protection aged between 15 and 65 years old.

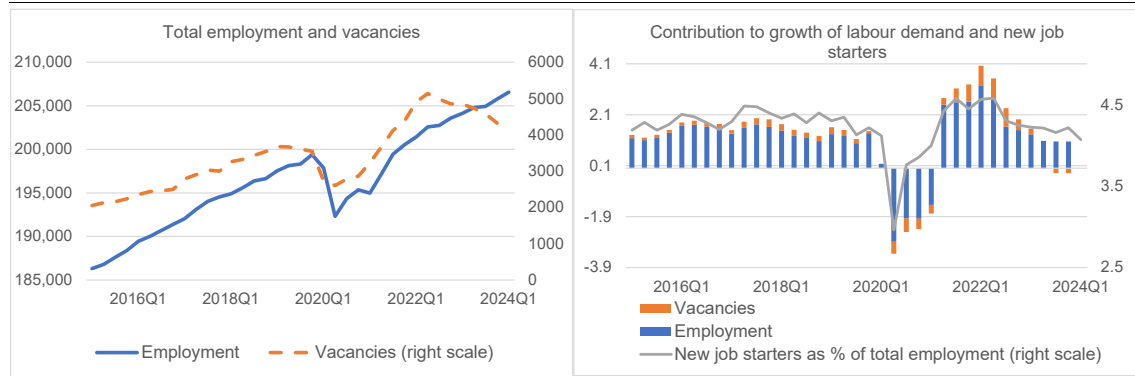
⁽⁵⁾ Germany collects data on all Ukrainian nationals, not only on beneficiaries of Temporary Protection.

1.3.2. Labour demand has loosened but shortages remain high

Labour demand started to decline recently, but without a notable decrease in employment growth. Between the second quarter of 2022 and the fourth quarter of 2023, employers responded to the economic slowdown by closing some unfilled vacancies or delaying new job openings. Consequently, the total number of vacancies, representing unmet labour demand, decreased by 16 %, while employment grew by 1.5 % (Graph 1.10). The percentage of new hires also dropped from 4.6 % of total employment in the second quarter of 2022 to 4 % in the first quarter of 2024 (and for the euro area from 5 % to 4.4 %). This indicates that firms have effectively lowered their recruitment intensity. Overall, employers seem to have maintained their existing employment relationships while adjusting to the slowdown by closing or delaying new vacancies or postponing hiring. However, given the relatively low number of unemployed

people, the slight drop in the chances of finding a job had little impact on the overall unemployment rate ⁽²⁵⁾.

Graph 1.10: **The components of labour demand**



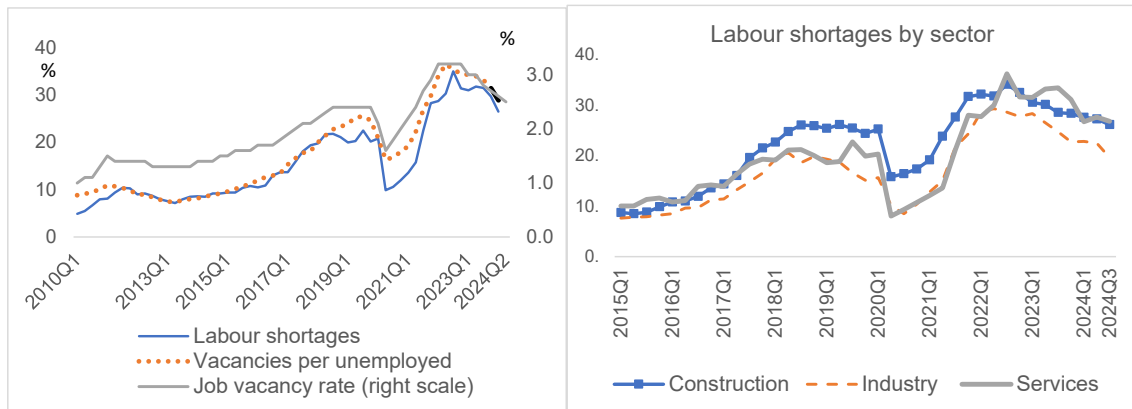
Note: Job vacancies cover the whole business economy aggregate (NACE Rev.2 sectors B-S). For Denmark and Estonia data refer to the whole economy (B-N). For Italy data are computed from the job vacancy rate and the occupied post available on ISTAT. New hires represent those individuals who started their employment in the last 3 months. Q1: first quarter.

Source: Eurostat, Labour Force Survey (lfsi_emp_q) and job vacancy statistics; ISTAT.

Labour shortages have eased but the labour market remains tight. In the first half of 2024, labour shortages declined across all sectors, particularly in services where about 27 % of firms reported such shortages, down from 32.3 % a year earlier. In construction and industry, these percentages were 27 % and 23 % compared with 30.3 % and 27 % of the first half of 2023. However, these figures are still above the pre-pandemic averages (Graph 1.11 right panel), indicating that the labour market remains overall tight. This is further confirmed by other indicators, such as the job vacancy rate or the vacancies per unemployed person (Graph 1.11 left panel). Generally, countries that had high labour shortages before the pandemic continue to experience high shortages. In the fourth quarter of 2023, the job vacancy rate was high in Belgium, Czechia, Germany, the Netherlands and Austria, and low in Bulgaria, Estonia, Ireland, Spain, Croatia, Poland, Romania and Slovakia (Graph 1.20 in the Annex). Compared with the post-pandemic peak, the job vacancy rate fell in Czechia, Denmark, Luxembourg and Finland. Conversely, it remained at the peak in Greece, Italy, Cyprus, Lithuania and Malta. There are no differences between the evolution of labour shortages in the EU and the euro area aggregate. In 2021 labour shortages in construction grew more rapidly in the euro area than in the EU, but later declined at a similar rate, ultimately leaving the euro area with overall larger labour shortages than in 2019.

⁽²⁵⁾ This is because the outflows out of unemployment equal the probability of finding a job multiplied by the number of unemployed people. If the number of unemployed people is small, the decline in the job finding rate has a small impact on the total unemployment rate.

Graph 1.11: Measures of labour market tightness (%)



Note: Labour shortages are represented by the average across sectors of the proportion of firms reporting that labour is a factor limiting their production. The vacancy rate is calculated as the number of job vacancies divided by the sum of occupied posts and job vacancies. Q1: first quarter; Q2: second quarter; Q3: third quarter.

Source: Business and consumer's surveys. Eurostat Labour Force Survey (LFS), Job Vacancy Statistics.

Employment growth was stronger in sectors with relatively high labour shortages⁽²⁶⁾ (Graph 1.12).

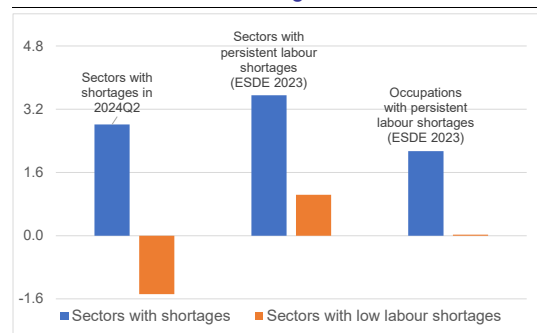
This suggests that employment growth in sectors with labour shortages partly results from labour supply expansion and job reallocation towards high-shortage sectors. The persistence of shortages in sectors marked by high employment growth indicates an untapped potential for further employment gains, including in sectors or occupations complementary to those facing labour shortages. This emphasises the need to boost labour market participation to sustain labour supply and offset population ageing.

1.3.3. Has the functioning of the labour market improved?

Some of the recent trends point to a structural improvement in labour market functioning, resulting in a lower structural unemployment rate. Since the third quarter of 2022, the vacancy rate has dropped without a corresponding change in unemployment (Graph 1.13 left panel). This potential inward shift of the Beveridge curve suggests a structural change that could be attributed to a reduction in the rate at which people lose their jobs and/or to improved matching efficiency⁽²⁷⁾.

The decline in the transition rate from employment to unemployment that had started in 2013 continued in the post-pandemic period. This suggests that employment relationships have become more stable, contributing to a lower unemployment rate. Graph 1.13 (right panel) illustrates this trend showing a decrease in the inflow rate from employment into unemployment after the 2013 recession

Graph 1.12: Employment growth for sectors with high and low labour shortages: 2022Q2-2024Q1



Note: NACE sectors at 2-digits level. Criteria used to define high and low labour shortages: the sectoral distribution of shortages in the second quarter of 2024; and the criteria used in European Commission (2023a) (ESDE 2023) to identify persistent labour shortages in specific sectors or occupations.

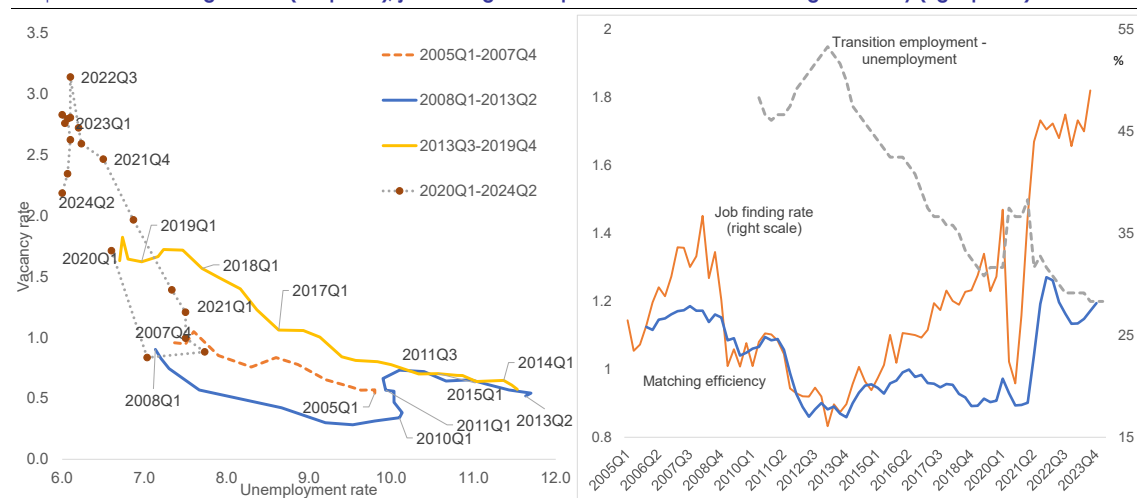
Source: Own Calculations on Labour Force Survey (LFS) and Business and Consumer Survey and European Commission (2023a).

⁽²⁶⁾ Labour shortages do not always result in employment growth in affected sectors, as labour demand may be constrained by the available workforce at current wages or by mismatches that hinder hiring despite shortages. Conversely, employment grows when the increased demand is met by a corresponding rise in the labour supply.

⁽²⁷⁾ A decline in the vacancy-unemployment ratio lowers the probability of finding a job, while an increase in matching efficiency increases this probability. A decline in the job dismissal rate means that fewer vacancies are needed to maintain the same unemployment rate. The former reduces the duration of unemployment, while the latter increases employment tenure.

peak, while Box 1.3 in the Annex provides an econometric analysis of the determinants of the job separation rate ⁽²⁸⁾. As discussed in Chapter 3, the ageing of the workforce and the extension of the working life as a result of pension reforms have probably contributed to longer job tenures among older workers. Moreover, higher levels of education among workers reduce job loss probability, as educated individuals face lower unemployment risks than their less educated peers ⁽²⁹⁾. Finally, amidst widespread labour shortages, firms face greater replacement needs, potentially reducing lay-offs and further stabilising employment ⁽³⁰⁾.

Graph 1.13: Beveridge curve (left panel), job finding and separation rates and matching efficiency (right panel)



Note: The vacancy rate is proxied by the number of firms that declare labour a factor limiting their production, as a percentage of the labour force. The job finding rate is computed from the structure of unemployment by duration (Elsby et al. 2015). The matching efficiency is the residual of a linear regression of the job finding rate (in logs) on labour market tightness (in logs). Q1: first quarter; Q2: second quarter; Q3: third quarter; Q4: fourth quarter.

Source: Eurostat, Labour Force Survey (LFS).

Recent shifts in the Beveridge curve appear related to improvements in job-matching efficiency. Increased outflows from unemployment, driven by better matching of unemployed individuals with vacant jobs is another factor contributing to an inward shift of the Beveridge curve ⁽³¹⁾. Graph 1.13 (right panel) shows improved matching efficiency after the pandemic recession, coinciding with a surge in the probability of finding a job to unprecedented levels. One explanation is that the policy response during the pandemic prevented the scarring effects of unemployment, maintaining the probability of finding a job, as evidenced by the long-term unemployment rate being at its lowest level (2.1 % in 2023). Another factor is reduced discrepancy between job seekers' skills and employers' needs ⁽³²⁾. This reduction enhances the job finding probability irrespective of the labour demand. The remainders of this section will detail a mismatch measure using sectoral-level data on vacancies and unemployment.

⁽²⁸⁾ Lower unemployment inflows raise the expected duration of a job match, making it more profitable for firms to open vacancies and create jobs. This is because longer job matches reduce the costs of opening a vacancy (Pissarides, 2000).

⁽²⁹⁾ Unemployment risks decrease with a higher level of education. The EU unemployment rate for high-skilled individuals is consistently one-third lower than for low-skilled individuals and three-fifths lower than for those with secondary education. Castro Silva et al. (2017) show that high-skilled workers, in medium and high-tech firms, experience a lower job separation rate and that the accumulation of firm-specific human capital with tenure has a larger influence in reducing the hazard of job separation as manufacturing becomes more technology-intensive.

⁽³⁰⁾ Barlevy et al. (2023) note that the US unemployment inflow rate has been declining since the early 1980s due to the stabilisation of female employment after the introduction of maternity leave and the ageing of the baby boom cohort.

⁽³¹⁾ High matching efficiency means that jobs are filled rapidly. An increase in the productivity of matching shifts the Beveridge curve leftwards and raises the labour demand by reducing the costs associated with posting vacancies (i.e. the job creation curve moves upwards).

⁽³²⁾ Mismatches refer to an imbalance between labour demand and labour supply across relevant dimensions – notably, skills, industries or geographical locations.

The rise in matching efficiency has been accompanied by a decline in sectoral mismatches between vacancies and unemployment ⁽³³⁾. In 2010, nearly half of unemployment originated from construction and manufacturing, while vacancies in these sectors accounted for less than one quarter of the total (Graph 1.14 upper panel) ⁽³⁴⁾. By 2023, this imbalance had decreased. Although there were relatively more unemployed individuals than vacancies in wholesale and hospitality than in 2010, this was largely due to voluntary quits driven by job quality concerns ⁽³⁵⁾, rather than a deterioration in matching. Meanwhile, sectors linked to the twin transition, such as professional, scientific and technical activities and ICT, showed a surplus of vacancies ⁽³⁶⁾. This surplus primarily reflects the strong demand for new tasks driven by structural shifts related to the digital and the green transitions. The imbalance stems from a shortage of workers relative to the job openings, many requiring specialised skills, and is further exacerbated by population ageing. Unlike mismatches caused by economic shocks, where sectoral contractions lead to excess labour supply of specific skills and rising long-term unemployment ⁽³⁷⁾ (e.g. the burst of demand after a boom in the construction sector) this reflects a broader, long-term shift in labour market dynamics ⁽³⁸⁾. The reduction in sectoral mismatches coincides with greater labour reallocation across sectors, in stark contrast to the 2008 crisis (Graph 1.14 lower panel). This suggests that firms and workers have adjusted job vacancies and job searches to the structural changes accelerated by the pandemic, notably digitalisation ⁽³⁹⁾.

⁽³³⁾ When the share of vacancies in a sector equals the share of job seekers, the sectoral mismatch is low, while it is high when there is a large gap between the two. Canon et al. (2013) provides a review of mismatch indices.

⁽³⁴⁾ The largest difference between the shares of vacancies and unemployment was in construction. Including the public sector, construction and industry accounted for 20 % of total job losses.

⁽³⁵⁾ Dissatisfaction with pay, job security, and flexibility are key factors causing people to quit their job (OECD, 2023; Eurofound, 2023; European Commission: Directorate-General for Employment, Social Affairs and Inclusion, 2023). In France, the number of resignations reached an historically high level in October 2023, notably in services (**DARES**).

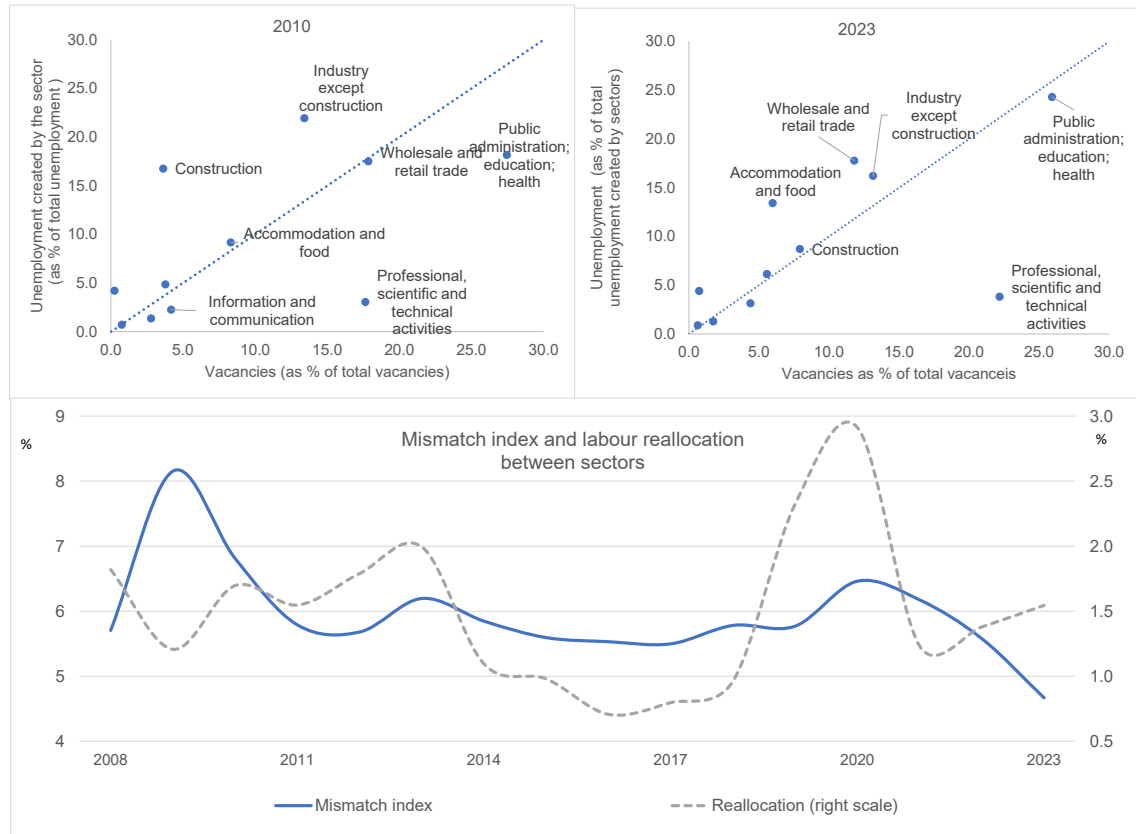
⁽³⁶⁾ This reflects a quickly changing labour demand amid slowly expanding labour supply, as evidenced by the challenges firms face in filling vacancies for ICT specialists. The European skills agenda sets the ambitious target of ensuring that by 2030, 80 % of adults should have at least basic digital skills. In 2023, only 56 % did.

⁽³⁷⁾ In the first quarter of 2024, the share of long-term unemployed stood at 33.5 % compared to 41.8 % in the last quarter of 2019.

⁽³⁸⁾ However, the available data lack sufficient detail to capture imbalances within very specific sectors or occupations. Therefore, skill mismatches may exist within particular industries or occupations, even when they appear low at a more aggregate level such as that considered here (NACE 1-digit). Within the same sectors or occupations new technologies shift firms' task demand potentially fostering horizontal skill mismatches, i.e. an imbalance between a worker's field of study and the content of his/her job. For the United States, Autor et al. (2024) shows that innovations that lead to new processes, new products and new services create demand for specific competencies that correspond to new tasks.

⁽³⁹⁾ Ciminelli et al. (2024) support this view, noting substantial and persistent occupational reallocation alongside labour market adjustment. Rising bankruptcies and new firm registrations also indicate ongoing sectoral reallocation (Eurostat, 2024). Since the pandemic had long-lasting effects on remote working arrangements (Bamieh and Ziegler, 2022), local labour markets may have become more permeable, reducing the relevance of territorial dispersion for job finding probability and resulting in better matching efficiency.

Graph 1.14: Unemployment by sector of last job and vacancies by sector, mismatch and reallocation index



Note: The mismatch index measures the percentage of hires lost due to imbalances between vacancies and unemployment by sector; See Box 1.5 in the Annex for data sources, methodology and limitations.

Source: Eurostat job vacancy statistics by sector and extraction of unemployment by sector of origin from Labour Force Survey (LFS) microdata.

1.4. OUTLOOK AND MAJOR CHALLENGES FOR THE LABOUR MARKET

Looking ahead, the EU labour market is expected to become less tight but remain strong despite challenges. Several factors that have driven employment growth and low unemployment are expected to abate in 2024⁽⁴⁰⁾. The inflow of non-EU nationals is likely to decrease, slowing labour supply growth, while a challenging macroeconomic climate may lower firms’ hiring intentions and reduce labour demand. Nevertheless, the unemployment rate is projected to stay near record lows in 2024 and 2025, with positive employment growth continuing. This resilience reflects improved matching efficiency and the expected acceleration of GDP growth, but also a shrinking working-age population and persistently high labour and skills shortages that may also push firms to retain more workers than needed in the future (Section 1.3). However, declining vacancies, shrinking profit margins, and structural issues such as low productivity growth and skills shortages will require policy attention.

1.4.1. The EU labour market may face short-term challenges

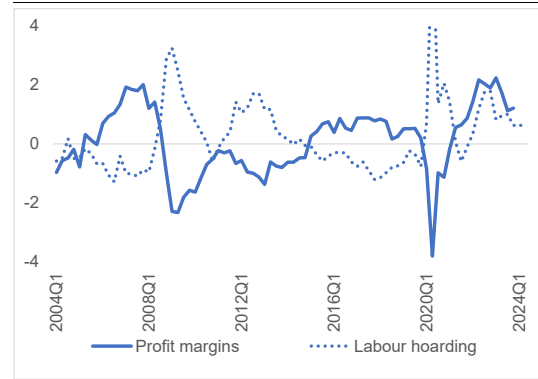
Recent business surveys point to weakened hiring intentions. Between 2023 and the first half of 2024, employers' hiring intentions declined from high levels, particularly in services, retail, and industry,

⁽⁴⁰⁾ Employment growth is expected to decline to 0.8 % in 2024 and to expand at a more moderate rate in 2025 and 2026 (0.6 % and 0.5 %, respectively). European Commission (2024a).

approaching historical averages by year-end. Weakening labour demand could lower the vacancy rate toward the pre-pandemic average of 1.6 %, potentially leading to a higher unemployment rate.

Weakening profit margins may also soften labour demand. Employers typically retain more workers than needed during downturns, a practice known as labour hoarding ⁽⁴¹⁾. In 2022 and 2023, high profit margins and moderate real unit labour costs acted as a positive supply shock for firms, fuelling labour demand despite the economic weakening. That way, unusually high profit margins also contributed to the persistence of labour hoarding (Graph 1.15).¹⁶ Labour hoarding peaked at the end of 2022, when 13 % of firms declared they retained employees despite an anticipated drop in production. It then continued to fall throughout 2023 but remained above the historical average in early 2024 (Graph 1.15). As profit margins normalise, firms may struggle to retain workers in a context of slower economic growth and still high-skill shortages.

Graph 1.15: Profit margins and labour hoarding



Note: Standardised data. The zero line is the pre-pandemic average. Profit margins are GDP deflator divided by unit labour costs. The labour hoarding indicator is the percentage of managers expecting their firm's output to decrease, but employment to remain stable or increase (see European Commission (2023d)).

Source: Eurostat, and European Commission's Joint Harmonised EU Programme of Business and Consumer Surveys.

1.4.2. Persistent economic weaknesses could pose challenges to maintaining the current low unemployment in the medium term

Medium-term challenges related to low productivity and skills shortages remain and, if left unaddressed, could undermine the resilience of the EU labour market. As discussed thoroughly in the report by Mario Draghi on *The Future of European Competitiveness* ⁽⁴²⁾, the EU's low productivity growth – particularly in comparison with other advanced economies, such the United States – represents a significant and long-lasting weakness, which hampers its competitiveness, job creation and economic resilience (see also Chapter 2). Labour and skills shortages represent an additional challenge for the labour market. In the short term, these shortages may force firms to lower their recruitment standards and fill their positions with less productive workers. In the long term, they may delay the adoption of new technology, reduce labour demand and increase skills mismatches (see Box 1.2). The rest of this section will review the main components of labour productivity to identify its drivers and discuss labour shortages in the context of the current low unemployment rate.

⁽⁴¹⁾ This reflects the EU's preference for employment stability over flexibility, unlike the US, as seen during the 2023 economic slowdown when firms were cautious about dismissing workers due to concerns about replacements.

⁽⁴²⁾ Draghi, M. (2024a), Draghi, M. (2024b).

Box 1.2: The link between productivity and employment growth

Economic history has shown that technological advances have not made labour an irrelevant factor of production. An increase in labour productivity growth means that less labour is needed to produce the same amount of output. Despite the huge technological advances of the last two centuries the employment-to-population ratio has risen continuously while unemployment has not shown any distinct rising trend. Technological progress and human capital often complement each other, enhancing productivity growth and labour demand. While specific sectors may face job losses, overall productivity improvements boost demand for complementary tasks (Autor, 2015), lower prices and increase real incomes, which drives employment growth. Thus, productivity gains in some industries can lead to job growth in less advanced ones (Autor and Dorn, 2013), generally fostering employment despite automation (Autor and Salomons, 2017).

Productivity growth shifts labour demand from manual to white collar jobs, with significant distributional changes. Between 2008 and 2023 in the EU, elementary occupations fell from 9.6% to 8.4% of total employment, while professionals grew from 13.7% to 22.2%. Routine tasks in medium-skilled roles are replaced by non-routine cognitive tasks in higher-skilled positions leading to a decline of blue-collar jobs (e.g. plant operators, assemblers and crafts and related trades workers) from 19.4% to 14.1%. This shift towards services, driven by productivity growth in agriculture and manufacturing, results in increased demand for both high- and low-skilled workers (e.g., health, education, finance, hospitality, and cleaning), causing job polarization and reducing demand for medium-skilled tasks (Goos et al, 2009).

Skill shortages constrain productivity growth. Human capital is crucial for driving total factor productivity through R&D, innovations, and knowledge spillovers. Skill shortages hinder productivity growth by limiting FDI Spillovers (Blomstrom and Kokko, 2003), distorting the distribution of talent across firms (Marshall, 1890), and reducing knowledge spillovers (Shimer, 2007). They also increase hiring costs (Puga, 2010) and discourage investments in general skills training (Mohrenweiser et al, 2013) and in advanced techniques due to the lack of an appropriate workforce. This can worsen job matching, potentially resulting in low-skill traps (Finegold and Soskice, 1988) and reduce output per worker, with hard-to-fill and unfilled vacancies lowering productivity by 65-75% in high-tech firms (McGuinness and Bennett, 2011). Skill gaps can result in a *low-skill* equilibrium slowing the growth of per capita income (Redding, 1996).

Policies are crucial for managing labour reallocation and addressing distributional challenges from productivity-driven technological changes. Boosting workers' employability and adaptability is essential for smooth transitions between declining and growing occupations. As highlighted in the Council Recommendation on micro-credentials for lifelong learning and employability, high-quality and inclusive initial education equips workers with skills to thrive in a changing labour market; accessible lifelong learning, aligned with labour market needs, support upskilling and reskilling. Individualized job-search assistance and a well-designed safety net are also crucial for facilitating smooth transitions and maintaining high employment, in line with the Council recommendation on adequate minimum income ensuring active inclusion.

The drivers of the long-term decline of labour productivity growth

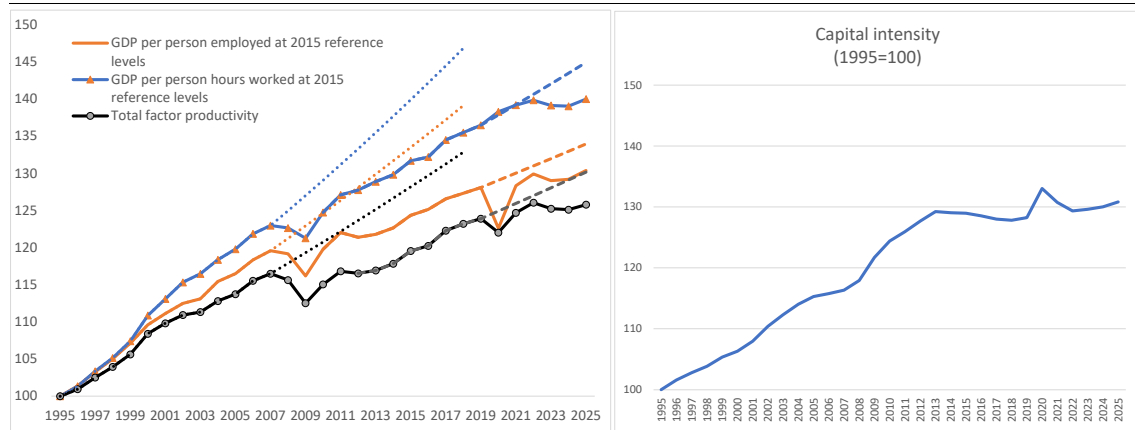
EU labour productivity growth is persistently low and forecast to remain subdued, despite some acceleration expected. Productivity growth has consistently slowed after each recession over the past two decades (Graph 1.16). Until 2007, these three measures expanded annually at 1.4 %, 1.6 % and 1.2 % respectively. Between 2010 and 2019, the growth rates dropped to 0.8 % (see Chapter 2). In 2023, productivity growth declined further, to 0.7 % per person employed and 0.5 % per hour worked in 2023⁽⁴³⁾. While EU labour productivity growth is expected to accelerate at 1.1 % in 2024 and 2025, it remains structurally low⁽⁴⁴⁾. Employment growth now contributes more to GDP growth than

⁽⁴³⁾ Productivity growth fell in all countries except Belgium, Bulgaria, Denmark, Greece, Croatia, Cyprus, Portugal, Romania, Slovenia and Slovakia.

⁽⁴⁴⁾ European Commission: Directorate-General for Economic and Financial Affairs (2024).

productivity in most Member States except Denmark, Poland, Portugal, Romania and Slovakia (Graph 1.22 in the Annex). Amid an ageing population, this weak productivity growth threatens competitiveness, economic growth, job creation, and living standards.

Graph 1.16: **GDP per person employed, per hours worked, total factor productivity and capital intensity (1995=100)**



Note: Capital intensity is the capital per input of labour.
Source: Eurostat, National accounts and AMECO database.

Subdued productivity growth stems from both cyclical and structural factors. Structural issues include lower capital intensity, human capital quality, technology adoption, firm-specific research and development, and market regulations limiting high-performing firms. The tendency of firms to engage in labour hoarding during the recent slowdown is a cyclical factor, but may also have structural elements (see Section 1.4.1).

Productivity growth within sectors drove over half of the decline of productivity growth between the pre- and post-pandemic periods. From 2019 to 2023, productivity growth averaged 0.24 % per year, down from 0.95 % in the 2010-2019 period and 1.5 % before the 2008-2009 financial crisis. The aggregate productivity growth can be decomposed using a shift-share analysis in a component that represents productivity growth within sectors and one reflecting the effects of reallocation between sectors with different productivity levels. This analysis shows that most of the decline was driven by falling productivity within sectors (Graph 1.17), especially manufacturing and wholesale and retail, rather than by shifts in employment between sectors (the so-called *structural change effect*)⁽⁴⁵⁾. The significant role of the sectoral productivity growth compared to the labour reallocation effect has also been observed in the US⁽⁴⁶⁾. The widening gap in productivity growth between the US and the EU after the pandemic primarily stems from significantly higher labour productivity growth within sectors in the US, rather than from an increasing share of sectors with high productivity levels. Indeed, as highlighted in the report by Mario Draghi on *The Future of European competitiveness*, the key factor driving the productivity growth gap has been the superior performance of the US ICT sector and its ability to leverage large-scale digital services. The insufficient diffusion of ICT technology in the EU has contributed to weaker productivity growth in sectors as professional services and finance and insurance.

The slower aggregate labour productivity growth stems mainly from factors beyond the labour market. Key drivers of labour productivity are the change in capital per person employed (capital deepening) and the efficiency with which the economy combines labour and capital, known as total factor productivity growth (TFP).

⁽⁴⁵⁾ For similar analysis and conclusions, see Graph II.2.5 in European Commission (2024) Autumn forecast, and ECB (2021) chart 8.

⁽⁴⁶⁾ ECB (2024).

The growth of capital stock has kept pace with the expansion of employment, resulting in a low contribution to labour productivity growth from capital deepening. By growing at about the same rate as employment, capital accumulation has prevented further productivity losses, drawing attention to the need for investments to boost productivity, as well as to foster innovation and sustainable economic growth. European policies have played a key role in addressing this need. Around half of the increase in public investment expected in the EU between 2019 and 2025 is estimated to result from initiatives financed by the EU budget, particularly through the Recovery and Resilience Facility ⁽⁴⁷⁾. However, as emphasized in the report by Mario Draghi on *The Future of European Competitiveness*, a substantial increase in investment is required in order to digitalise and decarbonise the economy and enhance the EU's defence capacity.

Weak TFP growth has been the main factor behind the disappointing labour productivity growth ⁽⁴⁸⁾. Recent literature has identified several key drivers of the weak TFP growth, notably: a decline in technological innovation and adoption; insufficient reallocation of capital and labour across firms ⁽⁴⁹⁾; the ageing workforce that reduces risk-taking; and weaker human capital accumulation ⁽⁵⁰⁾.

New technologies could boost productivity in the medium term, but they require investments in skills and equipment for low productivity firms. While the pandemic accelerated digital adoption, the effects on productivity have been mixed so far, largely due to the need for complementary digital and Science, Technology, Engineering and Mathematics (STEM) skills ⁽⁵¹⁾. A firm-level analysis on thirteen euro area countries shows that only 30 % of firms can effectively leverage digital technologies. These tend to be firms that are already relatively more productive and have a highly skilled workforce ⁽⁵²⁾.

⁽⁴⁷⁾ European Commission (2024a) and European Commission: Directorate-General for Economic and Financial Affairs (2024).

⁽⁴⁸⁾ In most countries and sectors, TFP accounts for the biggest share of productivity growth, followed by contributions from tangible and intangible capital deepening. Sectoral TFP patterns differ significantly between the EU and the US, with the US displaying much higher productivity growth in IT services and manufacturing of computers and electronics. Moreover, the EU's limited presence in industries benefitting from radical innovations constrains its TFP gains, which remain largely driven by the dynamics of mid-tech manufacturing (Nikolov et al. 2024).

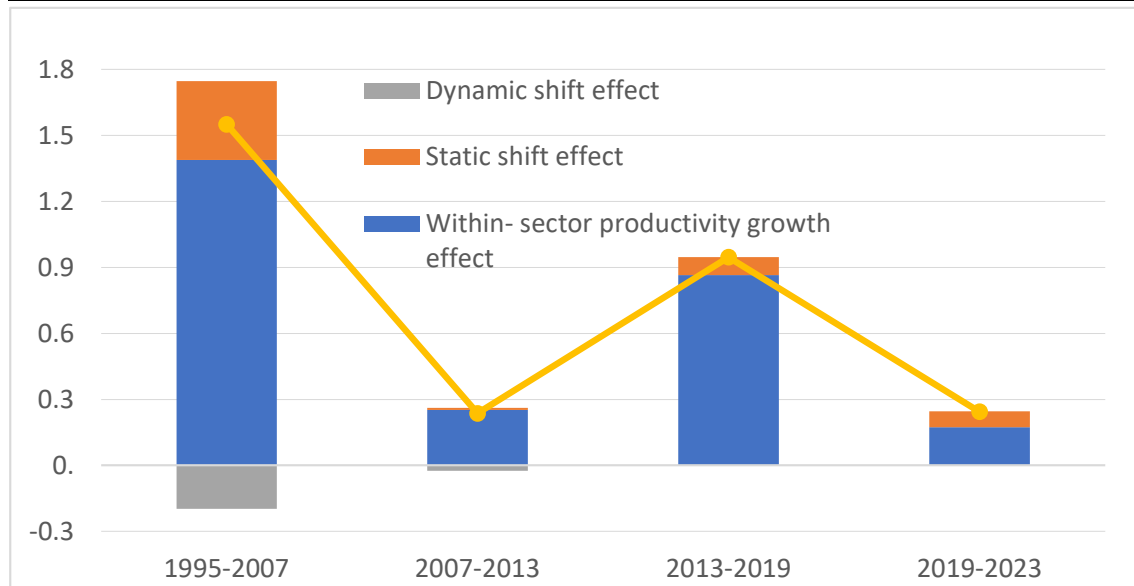
⁽⁴⁹⁾ IMF (2024) shows that the increased misallocation of capital and labour among firms (i.e. too much capital and labour in less productive firms) reduced TFP growth by 0.6 pps a year from 2000 to 2019 in the economies considered in the analysis.

⁽⁵⁰⁾ Adler et al. (2017). Fedotenkov and Vandeplas (2021) find that firm entry rates have a hump-shaped relationship with human demography, with the 40-54 age group having the strongest positive impact on firm entry. This is possibly related to the lower entrepreneurial propensity of older workers (after a certain age) or to their lower geographical mobility (Calvino et al. 2020).

⁽⁵¹⁾ Brindusa and Bunel (2024).

⁽⁵²⁾ Anderton et al. (2023).

Graph 1.17: Shift-share analysis for EU labour productivity growth



Note: Productivity is valued added per person employed. The real estate sector is excluded because its value added is biased by the inclusion of imputed rents of owner-occupied dwellings. The structural change effect is decomposed into a *static sectoral effect* that measures the growth of labour productivity due exclusively to change in the sector composition; and a *dynamic sectoral effect* that captures the growth due to the shift of resources in sectors with expanding or declining productivity. In the within-sector productivity growth effect, the productivity growth of each specific sector is the only source of growth. In the dynamic sectoral effect, the growth of labour productivity derives from the rising importance (in terms of employment share) of sectors with initially high productivity levels.

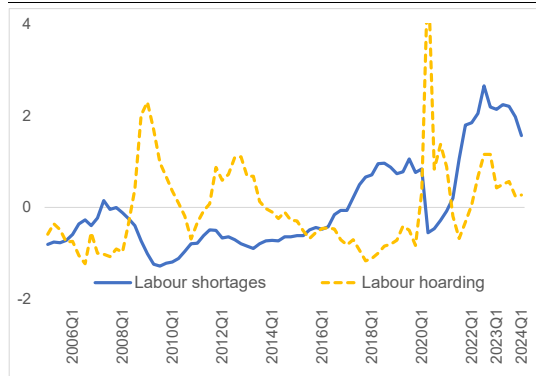
Source: Eurostat, National accounts.

Persistent high labour shortages may hamper productivity growth and job creation

In the medium-term, if unaddressed by policies, labour shortages risk weakening job creation and productivity growth. The strong correlation between filled and unfilled positions (Graph 1.12) suggests untapped employment potential in expanding sectors. Persistent labour and skill shortages may limit firms' ability to scale up production, leading them to focus on labour-saving technologies rather than product innovations. This could increase production costs, dampen demand and impact employment. Additionally, labour shortages may force workers to extend hours or to take on extra tasks, potentially reducing productivity due to fatigue and worsening job matching, which could lead to higher structural unemployment⁽⁵³⁾. Addressing these shortages with effective policies can improve non-price competitiveness through better product quality, innovation, and technological advancement.

⁽⁵³⁾ La Barbanchon et al. (2023) show that hiring difficulties have a negative effect on firms' employment, capital, sales and profits, notably in expanding sectors and high-skilled occupations. The effect on the demand for labour occurs by means of an exogenous reduction in the probability of finding a job that is akin to a decline in the effectiveness of job matching.

Graph 1.18: **Labour shortages and labour hoarding**



Note: Standardised data. The zero line represents the pre-pandemic average. Q1: first quarter.

Source: European Commission's Business and Consumer Surveys, Eurostat, Labour Force Survey (LFS).

In 2023, a shift occurred in the relation between labour shortages and labour hoarding. Typically, labour shortages decrease during economic downturns as firms hold onto their workers despite slower growth (Graphs 1.18). In 2023, this pattern changed due to both short-term developments and long-term demographic trends (see Box 1.4). Specifically, firms expecting a shrinking workforce and growing demand for specialised skills may have chosen to keep their workers despite the economic slowdown⁽⁵⁴⁾.

Labour shortages that lead to retaining workers can limit the opportunities for new firms to enter the market. In 2023, firms' tendency to retain and hire more workers during the economic slowdown reflected severe labour and skills shortages and an

anticipated shrinking working-age population due to demographic changes⁽⁵⁵⁾. This labour scarcity may make firms more risk-averse, discouraging investments with upfront costs (e.g. those leading to product innovations).

1.5. POLICY IMPLICATIONS

Despite its current strength, the EU labour market faces several challenges that require policy attention. Declining profit margins could dampen labour demand in the short-term, particularly if wage increases are not matched by an increase in productivity growth, and so could a further drop in vacancies (see also Chapter 2). Structural challenges include skills shortages and low productivity growth in the context of the twin transitions⁽⁵⁶⁾. This requires a comprehensive policy response to promote the activation of labour potential, up-skill and re-skill the workforce, facilitate labour reallocation and improve working conditions. Demographic changes may further tighten the labour market by reducing the size of the working-age population which is unlikely to be offset by net migration flows.

Addressing labour and skills shortages is crucial for boosting sustainable economic growth and mitigating the root causes of weak productivity growth. Rapid technological changes are driving a quick rise in the demand for specific skills, outpacing the current supply. An ageing population not only leads to a decrease in the workforce but also accelerates skills obsolescence as technology evolves rapidly. In the short term, skills shortages may lead firms to rely on less qualified people, resulting in suboptimal talent allocation. In the medium term, firms may adapt to skills shortages by adopting less skills-intensive technologies or automating tasks that do not necessarily enhance productivity, leading to low-skilled equilibrium characterised by low productivity, a poorly trained workforce and low wages. Addressing skills shortages, including through employer provided training, would increase labour mobility, thus reallocating workers to high-demand occupations and freeing up positions in non-shortage

⁽⁵⁴⁾ The link between demographic factors and labour hoarding is also confirmed by a panel regression showing that countries with faster ageing of the working age population tend to have a higher level of the indicator of labour hoarding (Table 1.3).

⁽⁵⁵⁾ For the United States, Cohen (2023) argues that labour shortages have led many employers to hold on to workers, even though they expect demand for their goods or services to weaken in the future. A survey by the U.S. Federal Reserve (Beige Book, 2023) indicates that firms kept workers to retain talent they fought hard to get, while others struggled with ongoing staffing shortages. Labour shortages may also be reinforced when hiring difficulties make employers reluctant to layoff workers (Doornik, 2023).

⁽⁵⁶⁾ Council Recommendation 2022/C 243/04.

occupations. In a situation of near full employment, these outcomes can boost employment growth only if matched by qualitative and quantitative improvements in the labour supply.

The EU Action Plan on labour and skills shortages, adopted in March 2024, outlines a comprehensive set of policies aimed at mobilising all underutilised resources. Its implementation will foster workforce adaptation to demographic and technological changes and boost innovation, enhancing long-term economic resilience and competitiveness⁽⁵⁷⁾. The EU Talent Pool⁽⁵⁸⁾ will ease the matching between jobseekers from outside the EU and job vacancies for shortage occupations with EU employers. The European Skills Agenda⁽⁵⁹⁾ is the strategic EU framework for addressing upskilling and reskilling needs. Its flagship actions include initiatives on individual learning accounts⁽⁶⁰⁾ and micro credentials⁽⁶¹⁾, which will foster the acquisition of competences and increase the participation of adults in education and training, thus improving the matching of skills and jobs. Increasing labour force participation, especially, as discussed in Chapter 3, among older workers, women and the young who are not in education, employment or training is essential. Swift implementation of initiatives in skills development and training, improving fair intra-EU mobility, and attracting talent from outside the EU will make the workforce adaptable to structural changes, including those linked to the twin transitions. These measures will promote smooth labour reallocation, boost productivity and competitiveness, and support higher and sustainable wage growth, as well as improving working conditions. Attracting and integrating talent from outside the EU and promoting the labour force participation of underrepresented groups can also help mitigate the effect of ageing on labour supply.

To reignite productivity growth in the EU, a comprehensive and coordinated approach across multiple policy areas is essential. As highlighted in the report by Mario Draghi on *The Future of European Competitiveness*, investing in human capital, closing the innovation gap with the US and China, particularly by fostering radical innovations that disrupt existing industries are critical. Investments in research and development are essential as they drive innovation and technological advances. A well-educated labour force is a pre-requisite for promoting and spreading innovation throughout the economy. Addressing skill shortages is also key to remove barriers to innovation and facilitate the adoption of new technologies. The European Social Fund Plus can play a crucial role in financing investments in jobs and skills, while the Just Transition Fund facilitates the economic diversification and reconversion of territories most negatively affected by the transition to climate neutrality. The implementation of national recovery and resilience plans, supported by the Recovery and Resilience Facility, is also essential for advancing R&D in green and digital technologies while improving human capital. As stressed by President von der Leyen in her political guidelines and the report by Mario Draghi on *The Future of European Competitiveness*, education and training systems must adapt to evolving skill needs, especially in sectors vital for the twin transitions⁽⁶²⁾. A stronger emphasis on adult learning and vocational training is essential to up-skill and re-skill the workforce, maintain human capital in ageing societies and boost competitiveness.

1.6. CONCLUSIONS

The EU labour market has remained resilient despite subdued growth in 2023 and early 2024. The unemployment rate has stabilised at around 6 % since May 2022. However, signs of cooling off have emerged such as a declining job vacancy rate and fewer firms reporting labour shortages since early 2023.

⁽⁵⁷⁾ The action plan is part of the EU's strategy to boost its competitiveness and enhance its economic and social resilience. Its implementation aims to seize the opportunities of the green and digital transition and foster the creation of quality jobs.

⁽⁵⁸⁾ COM (2023) 716 final.

⁽⁵⁹⁾ COM (2020) 0274 final.

⁽⁶⁰⁾ Council Recommendation 2022/C 243/03.

⁽⁶¹⁾ Council Recommendation 2022/C 243/02.

⁽⁶²⁾ Draghi (2024a), Draghi (2024b), European Commission (2024d)

Insufficient demand has become the main reason firms are not expanding production. Nevertheless, the labour market remains tight, with several indicators performing better than the pre-pandemic average. Looking ahead, the European Commission Autumn forecast suggests that the employment is set to continue its growth, though at slower pace, with the unemployment rate staying at its historically low level. While the low unemployment rate means that the labour demand is strong, the available supply will be insufficient to fill all vacant positions. This implies that the labour market might remain tight.

Recent labour market trends point to a good performance, yet underlying challenges persist related to low productivity growth and widespread labour and skills shortages. Low productivity growth undermines competitiveness, pushing firms to rely on cost-cutting strategies rather than innovation. Persistent labour and skill shortages may delay technology adoption, raise costs, and reduce labour demand. In the short term, shortages can lead firms to retain their workforce, which may hinder labour reallocation over the medium term. To achieve sustainable economic growth and finance the European social model, it is essential to boost productivity growth. This is particularly important given the rapid ageing of the labour force.

Addressing these challenges require concerted efforts across multiple policy areas, ensuring sustainable economic growth and resilience. Encouraging investments in research and development (R&D) and in digital and energy-efficient technologies can unlock new opportunities for productivity gains. Reforming education and training systems to better align them with labour market needs is essential for upskilling and reskilling the workforce and fostering the adoption and diffusion of new technologies. Enhancing workforce adaptability will help to sustain the current low unemployment rates and facilitate the shift of labour toward high-productivity growth sectors. In the context of an ageing population, harnessing the potential of underrepresented groups in the labour market and attracting talent from non-EU countries, particularly in EU-wide shortage occupations, will be critical to maintain sustainable growth and resilience.

REFERENCES

- Adler, G., Duval, R., Furceri, D., Kiliç Çelik, S., Koloskova, M.P. Ribeiro (2017). “Gone with the headwinds: Global productivity”, IMF Staff Discussion Note 17/004. <https://doi.org/10.5089/978>
- Anderton, R., Botelho, V. and Reimers, P. (2023). *Digitalisation and productivity: game changer or sideshow?*, Working Paper Series, No 2794.
- Arce, O. and Sondermann, D. (2024). *Low for long? Reasons for the recent decline in productivity*, THE ECB BLOG, 6 May. <https://www.ecb.europa.eu/press/blog/date/2024/html/ecb.blog20240506~f9c0c49ff7.en.html>.
- Autor, D. H., and Dorn, D. (2013). *The Growth of Low-Skill Service Jobs and the Polarization of the US Labor Market*, American Economic Review, Vol 103 (5): 1553–97.
<https://www.aeaweb.org/articles?id=10.1257/aer.103.5.1553>
- Autor, D. H. (2015). *Why Are There Still So Many Jobs? The History and Future of Workplace Automation*, Journal of Economic Perspectives, Vol 29 (3): 3–30.
<https://www.aeaweb.org/articles?id=10.1257/jep.29.3.3>.
- Autor, D. H., and A. Salomons (2017). *Does Productivity Growth Threaten Employment?* European Central Bank Annual Conference, Sintra, Portugal.
https://www.ecb.europa.eu/press/conferences/shared/pdf/20170626_ecb_forum/Autor-Salomons-Productivity-Presentation.pdf.
- Autor, D. H., C. Chinn, A. Salomons and B. Seegmiller (2024). *New Frontiers: The Origin and Content of New Work, 1940-2018*, The Quarterly Journal of Economics Vol 139 (3): 1399-1465. <https://doi.org/10.1093/qje/qjae008>
- Bamieh, O. and Ziegler, L. (2022). *Are remote work options the new standard? Evidence from vacancy postings during the COVID-19 crisis*, Labour Economics, Vol 76: 927-531.
<https://www.sciencedirect.com/science/article/pii/S0927537122000707?via%3Dihub>
- Barlevy, G., Faberman, R.J., Hobijn, B. and Sahin, A. (2023). *The shifting reasons for Beveridge-curve shifts*, NBER Working Paper 31783. <https://www.nber.org/papers/w31783>
- Barrero, J., Bloom, M. N. and Davis, S.J. (2020). *COVID-19 Is Also a Reallocation Shock*, Brookings Papers on Economic Activity, Vol 2020(2), pages 329-383.
- Bauer, A. (2013). *Mismatch Unemployment, Evidence from Germany, 2000-2010*, IAB Discussion Paper No 10, <https://doku.iab.de/discussionpapers/2013/dp1013.pdf>.
- Berson, C. and Botelho, V. (2023). *Record labour participation: workforce gets older, better educated and more female*, ECB blog, 8 November, <https://www.ecb.europa.eu/press/blog/date/2023/html/ecb.blog231108~8a96e44be0.en.html#:~:text=The%20LFPR's%20rise%20above%20pre,the%20rise%20in%20the%20LFPR>

Böheim, R. and Christl, M. (2022). *Mismatch unemployment in Austria: The role of regional labour markets for skills*, Regional Studies, Regional Science, Vol 9 (1), p. 208-222, <https://www.tandfonline.com/doi/full/10.1080/21681376.2022.2061867>.

Brindusa, A. and Bunel, S. eds (2024). *Digitalisation and Productivity, A report by the ESCB expert group on productivity, innovation and technological change*, ECB Occasional Paper Series No 339, <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op339~f67b6981a9.en.pdf>.

Calvino, F., Criscuolo, C. and Verlhac, R. (2020). *Declining business dynamism: structural and policy determinants*. OECD Science, Technology and Innovation Policy Papers, No. 94. <https://www.oecd-ilibrary.org/docserver/77b92072-en.pdf?expires=1730461451&id=id&accname=guest&checksum=07093D69DB820DC8A3018BB167432CDF>.

Canon, M. E., Chen, M. and Marifia, E. A. (2013). *Labor Mismatch in the Great Recession: A Review of Indexes Using Recent U.S. Data*, Federal Reserve Bank of St. Louis Review, Vol. 95, pp. 237–272, <https://fedinprint.org/item/fedlr/25964>.

Castro Silva, H. and Lima, F. (2017). *Technology, employment and skills: A look into job duration*, Research Policy, Vol 46 (8): 1519-1530,

<https://www.sciencedirect.com/science/article/abs/pii/S0048733317301191#:~:text=Our%20results%20show%20that%20technological,in%20more%20technology%2Dintensive%20firms>

Chalom, C. Şahin, A., Skandalis, Topa, G. and Violante, G. L. (2018). *Mismatch Unemployment in the US and France*, presentation, Federal Reserve Bank of New York, <https://dares.travail-emploi.gouv.fr/sites/default/files/pdf/2b-topa.pdf>.

Ciminelli, G., Haramboure, A., Samek, L., Schweltnus, C., Shrivastava, A. and Sinclair, T. (2024). *Occupational reallocation and mismatch in the wake of the Covid-19 pandemic: Cross-country evidence from an online job site*, OECD Productivity Working Papers, No. 35, <https://doi.org/10.1787/128b92aa-en>.

Cohen, E. (2023). *Post-Pandemic Labor Shortages Have Limited the Effect of Monetary Policy on the Labor Market*, Federal Reserve Bank of Kansas City, Economic Bulletin, <https://www.kansascityfed.org/Economic%20Bulletin/documents/9801/EconomicBulletin23Cohen0922.pdf>

Consolo, A. and F. Petroulakis (2022). *Did COVID-19 induce a reallocation shock?*, ECB Working Paper No 2703, <https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp2703~ce8739d3d5.en.pdf>.

Council of the European Union (2016). Council Recommendation of 19 December 2016 on upskilling pathways: new opportunities for adults (OJ C 484, 24.12.2016, p. 1), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ%3AJOC_2016_484_R_0001.

Council of the European Union (2020). Council Recommendation of 24 November 2020 on vocational education and training (VET) for sustainable competitiveness, social fairness and resilience (OJ C 417, 2.12.2020, p. 1), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020H1202%2801%29>.

Council of the European Union (2022a). Council Recommendation of 16 June 2022 on ensuring a fair transition towards climate neutrality (OJ C 243, 27.6.2022, p. 35), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022H0627%2804%29>.

Council of the European Union (2022b). Council Recommendation of 16 June 2022 on individual learning accounts (OJ C 243, 27.6.2022, p. 26), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32022H0627%2803%29>.

Council of the European Union (2022c). Council Recommendation of 16 June 2022 on a European approach to micro-credentials for lifelong learning and employability (OJ C 243, 27.6.2022, p. 10), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32022H0627%2802%29>.

Council of the European Union (2023). Council Recommendation of 30 January 2023 on adequate minimum income ensuring active inclusion (OJ C 41, 3.2.2023, p. 1), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32023H0203%2801%29>.

Darougheh, S. (2022). *(Mis)matching in the post-pandemic Danish labour market*, Economic Memo No 9, Danmarks Nationalbank, <https://www.nationalbanken.dk/media/szhosf3g/economic-memo-nr-9-2022.pdf>.

Deutsche Bundesbank (2021). *The slowdown in euro area productivity growth*, *Deutsche Bundesbank Monthly Report*, January, <https://www.bundesbank.de/resource/blob/858448/144b27fb6dae9364eff8c7e6a4a74fb4/mL/2021-01-produktivitaetswachstum-data.pdf>.

Draghi, M. (2024a), *The Future of European Competitiveness – A competitiveness strategy for Europe*, European Commission: Directorate-General for Communication, Brussels, https://commission.europa.eu/document/download/97e481fd-2dc3-412d-be4c-f152a8232961_en.

Draghi, M. (2024b), *The Future of European Competitiveness – In-depth analysis and recommendations*, European Commission: Directorate-General for Communication, Brussels, https://commission.europa.eu/document/download/ec1409c1-d4b4-4882-8bdd-3519f86bbb92_en?filename=The%20future%20of%20European%20competitiveness_%20In-depth%20analysis%20and%20recommendations_0.pdf

Doornik, B., Igan, D. and Kharroubi, E. (2023). *Labour markets: What explains the resilience?*, *Bank for International Settlements Quarterly Review*, December, https://www.bis.org/publ/qtrpdf/r_qt2312f.pdf.

Ernst, E. and Feist, L. (2024). *Tomorrow at work: The age of shortages*, *Intereconomics*, Vol 59, No 3, pp. 125–131, <https://www.intereconomics.eu/contents/year/2024/number/3/article/tomorrow-at-work-the-age-of-shortages.html#:~:text=Conclusions,levels%20have%20likely%20maxed%20out>.

Eurofound (2022). *Working Conditions in the Time of COVID-19: Implications for the future*, European Working Conditions Telephone Survey 2021 series, Publications Office of the European Union, Luxembourg, <https://www.eurofound.europa.eu/en/publications/2022/working-conditions-time-covid-19-implications-future>.

European Central Bank (2021). *Key Factors behind Productivity Trends in EU Countries*, Occasional Paper No 268, pp. 1–196, <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op268~73e6860c62.en.pdf>.

European Central Bank (2024). *Labour productivity growth in the euro area and the United States: short and long-term developments*, ECB Economic Bulletin 6/2024, https://www.ecb.europa.eu/press/economic-bulletin/focus/2024/html/ecb.ebbox202406_01~9c8418b554.en.html.

Key Factors behind Productivity Trends in EU Countries, Occasional Paper No 268, pp. 1–196, <https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op268~73e6860c62.en.pdf>.

European Commission (2020). Commission communication – European skills agenda for sustainable competitiveness, social fairness and resilience (COM(2020) 0274 final), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0274>.

European Commission (2023a). Commission communication – Proposal for a regulation of the European Parliament and of the Council establishing a talent pool (COM(2023) 716 final), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2023%3A716%3AFIN>.

European Commission (2023b). ‘Migrant employment in occupations with labour shortages’, *Employment and Social Developments in Europe 2023*, [https://op.europa.eu/webpub/empl/esde-2023/chapters/chapter-2-6.html#:~:text=In%202021%2C%20the%20share%20of,shortage%20occupations%20\(Chart%202.21\)](https://op.europa.eu/webpub/empl/esde-2023/chapters/chapter-2-6.html#:~:text=In%202021%2C%20the%20share%20of,shortage%20occupations%20(Chart%202.21)).

European Commission (2023c). *Recovery and Resilience Scoreboard – Thematic analysis – Adult learning and skills*, https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/assets/thematic_analysis/scoreboard_thematic_analysis_%20adult_learning_skills.pdf.

European Commission (2024a). Commission communication – Strengthening the EU through ambitious reforms and investment (COM(2024) 82 final), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52024DC0082>.

European Commission (2024b). *Recovery and Resilience Scoreboard – Thematic analysis – Research and innovation*, https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/assets/thematic_analysis/scoreboard_thematic_analysis_research_and_innovation.pdf.

European Commission (2024c). Commission communication – Labour and skills shortages in the EU: An action plan (COM(2024) 131 final), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2024:131:FIN>.

European Commission (2024d), Directorate-General for Communication and Løyen, U., *Europe’s choice: political guidelines for the next European Commission 2024–2029*, Publications Office of the European Union, 2024, <https://data.europa.eu/doi/10.2775/260104>

European Commission: Directorate-General for Economic and Financial Affairs (2023). *European Business Cycle Indicators – A new survey-based labour hoarding indicator – 2nd quarter 2023*, Technical Paper 066, Publications Office of the European Union, Luxembourg, https://economy-finance.ec.europa.eu/document/download/4fbc4f57-eac8-4375-a89d-4ec3ece6028e_en?filename=tp066_en.pdf.

European Commission: Directorate-General for Economic and Financial Affairs (2024). *European Economic Forecast – Autumn 2024*, Publications Office of the European Union, Luxembourg, <https://data.europa.eu/doi/10.2765/219276>.

European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2022). *Labour Market and Wage Developments in Europe – Annual review 2022*, Publications Office of the European Union, Luxembourg, <https://data.europa.eu/doi/10.2767/128906>.

European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2023a). *Employment and Social Developments in Europe – Addressing labour shortages and skills gaps in the EU – 2023 annual review*, Publications Office of the European Union, Luxembourg, <https://op.europa.eu/en/publication-detail/-/publication/680d6391-2142-11ee-94cb-01aa75ed71a1/language-en>.

European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2023b). *Labour Market and Wage Developments in Europe – Annual review 2023*, Publications Office of the European Union, Luxembourg, <https://op.europa.eu/webpub/empl/lmwd-annual-review-report-2023/>.

European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2024). *Annual Report on Intra-EU Labour Mobility 2023*, Publications Office of the European Union, Luxembourg, <https://data.europa.eu/doi/10.2767/59413>.

European Migration Network and OECD (2024). *Labour market integration of beneficiaries of temporary protection from Ukraine*, https://home-affairs.ec.europa.eu/system/files/2024-05/EMN_OECD_INFORM_Labour%20market%20integration_2024.pdf.

Eurostat (2024). ‘Quarterly registrations of new businesses and declarations of bankruptcies – Statistics’, 16 August 2024, accessed 1 November 2024, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Quarterly_registrations_of_new_businesses_and_declarations_of_bankruptcies_-_statistics.

Fedotenkov, I. and Vandeplas, A. (2021). *The Implications of Ageing for Business Dynamics*, LICOS Discussion Paper No.428, LICOS Centre for Institutions and Economic Performance, Leuven, <https://www.econstor.eu/bitstream/10419/267924/1/1785347802.pdf>.

Goos, M., Manning, A. and Salomons, A. (2009). ‘Job polarization in Europe’, *American Economic Review*, Vol. 99, No 2, pp. 58–63, <https://www.aeaweb.org/articles?id=10.1257/aer.99.2.58>.

Hande, M. J. (2024). ‘Labor shortages: What is the problem?’, *Intereconomics*, Vol. 59, No 3, pp. 125–131, <https://www.intereconomics.eu/contents/year/2024/number/3/article/labor-shortages-what-is-the-problem.html#:~:text=When%20prices%20rise%2C%20shortages%20vanish,is%20outpacing%20growth%20in%20supply>.

Horbach, J. and Rammer, C. (2020). *Labor Shortage and Innovation*, ZEW Discussion Paper No 20-009, Leibniz Centre for European Economic Research, <https://ftp.zew.de/pub/zew-docs/dp/dp20009.pdf>.

International Monetary Fund (2024). ‘Slowdown in global medium-term growth’, in: *World Economic Outlook – Steady but slow: Resilience and Divergence*, Washington, DC, pp. 65–85, <https://www.elibrary.imf.org/display/book/9798400255892/CH003.xml>.

International Organization for Migration (2023). *Access to Labour Markets and Employment in Europe for Refugees from Ukraine*, Grand-Saconnex, https://dtm.iom.int/sites/g/files/tmzbd11461/files/reports/DTM2023_Regional_Access_to_Labour_Markets_in_Europe_Ukrainians_Jan-March.pdf.

Kudlyak, M. and Ochse, M. G. (2020). ‘Why is unemployment currently so low?’, Federal Reserve Bank of San Francisco, <https://www.frbsf.org/research-and-insights/publications/economic-letter/2020/03/why-is-unemployment-currently-so-low/>.

Le Barbanchon, T., M. Ronchi and J. Sauvagnat (2024). *Hiring difficulties and firm growth*, CEPR, Discussion Paper 17891.

Hande, M.J (2024). *Labor Shortages: What Is the Problem?* vol, 59(3), 125-131, Intereconomics.

Nikolov, P., Simons, W., Turrini, A. Voigt, P., (2024). *Mid-Tech Europe? A Sectoral Account on Total Factor Productivity Growth from the Latest Vintage of the EU-KLEMs Database*, DG ECFIN Discussion Paper 208. https://economy-finance.ec.europa.eu/publications/mid-tech-europe-sectoral-account-total-factor-productivity-growth-latest-vintage-eu-klems-database_en

OECD (2022). *The potential contribution of Ukrainian refugees to the labour force in European host countries*, *OECD Policy Responses on the Impacts of the War in Ukraine*, OECD Publishing, Paris, <https://doi.org/10.1787/e88a6a55-en>.

OECD (2023a). *International Migration Outlook 2023*, OECD Publishing, Paris, <https://doi.org/10.1787/b0f40584-en>.

OECD (2023b). *Retaining Talent at All Ages*, Ageing and Employment Policies, OECD Publishing, Paris, <https://doi.org/10.1787/00bddd06-en>.

OECD-European Commission (2023c). "Indicators of Immigrant integration"; OECD (2023) "What do we know about the skills and early labour market outcomes of refugees from Ukraine?" <https://doi.org/10.1787/dc825602-en>.

OECD-European Commission, (2023d). *Indicators of Immigrant integration*, <https://doi.org/10.1787/1d5020a6-en>.

Patterson, C. Şahin, A., J. Song, G. Topa, and G. L. Violante (2013). *Mismatch Unemployment in the UK*, https://www.newyorkfed.org/medialibrary/media/research/economists/topa/UK_mismatch_v3.pdf.

Şahin, A., J. Song, G. Topa, and G. L. Violante. (2014). *Mismatch Unemployment*, *American Economic Review*, 104 (11): 3529–64. DOI: 10.1257/aer.104.11.352

ANNEX 1.1: FURTHER ANALYSIS AND SELECTED GRAPHS

Box 1.3: The determinants of the job separation rate

The job separation rate is a key parameter influencing inflows into unemployment. It determines the likelihood of job loss, and along with outflows from unemployment, the overall unemployment rate. An increase in the job separation rate shifts the Beveridge curve leftward in the unemployment-vacancy space, an effect similar to an improvement in matching efficiency. Additionally, it influences the value of keeping vacancies open versus filling them immediately, thereby affecting labour demand.

There has been a persistent decline in the job separation rate. Except for cyclical spikes, the inflow rate into unemployment has been trending downward (see Graph 1.14 in the text). Transition rate into unemployment in the US have also been trending downwards and are currently at their lowest levels (Kudlyak et al (2020); Barlevy et al (2023)). This trend has been attributed to changes in social norms regarding female employment and the increased availability of maternity leave, resulting in fewer career interruptions and a lower rate of women dropping out of the labour force and subsequently flowing back into unemployment. Additionally, the ageing of the “Baby Boom” generation, with older workers experiencing steadily lower separation rates than the average (Fujita, 2012; Barlevy et al., 2023); improved matching efficiency due to better screening by hiring firms (Pries and Rogerson, 2019); a declining trend in business volatility (Fujita, 2012) ⁽¹⁾ have contributed to this trend. Finally, workers may have prioritised job security over higher wage growth, opting to accept lower wage growth in exchange for retaining their employment.

For the EU, there is a long-run relationship linking the job separation rate to labour shortages, the ageing of the workforce, and the matching efficiency. Econometric methods allow to estimate the long-run relationship (so-called cointegration) between variables of interest whose statistical properties (mean, variance, and autocorrelation) are changing over time ⁽²⁾. For our analysis we consider the following variables: labour shortages, proxied by the factor limiting production; the employment aged 55-64 over the employment aged 25-54; the matching efficiency obtained from an estimate of the matching function. ⁽³⁾ The existence of a long-run relationship is confirmed by cointegration tests that do not require any assumption on the exogeneity of the regressions (see table). The results suggest that a one percentage point increase in the share of older workers relative to the prime age group reduces the job separation rate by 50 %. Additionally, a one percentage point increase in labour shortages reduces the job separation rate by 0.2 %. This confirms that, when faced with labour shortages, companies are more cautious about dismissing their workforce.

Long-run determinants of the job separation rate (cointegration equation)

	Full Modified Least Squares	Dynamic Least Squares	Canonical Cointegrating Regression
Labour shortages	-0.15 *** (0.02)	-0.16 *** (0.02)	-0.15 *** (0.02)
Share of employment 55-64 over share of employment 25-54	-0.51 *** (0.03)	-0.62 *** (0.03)	-0.49 *** (0.03)
Matching efficiency	-0.15 ** (0.07)	-0.13 (0.14)	-0.19 *** (0.08)
R-squared (adjusted)	0.82	0.89	0.80
Phillips-Ouliaris cointegration test. H0: series are not cointegrated	p-value 0.0022	p-value 0.0022	p-value 0.0022

*Significant at 1 %; **significant at 5 %; ***significant at 10 %.

⁽¹⁾ The reason is that when firms face smaller shocks it is less likely that the profitability of a job match will fall below a threshold that would lead to dismissal, resulting in lower job destruction rate (Fujita, 2023).

⁽²⁾ This means that the time series does not revert to a long-term mean, i.e. shocks tend to be highly persistent. In this case, the series are said to be non-stationary).

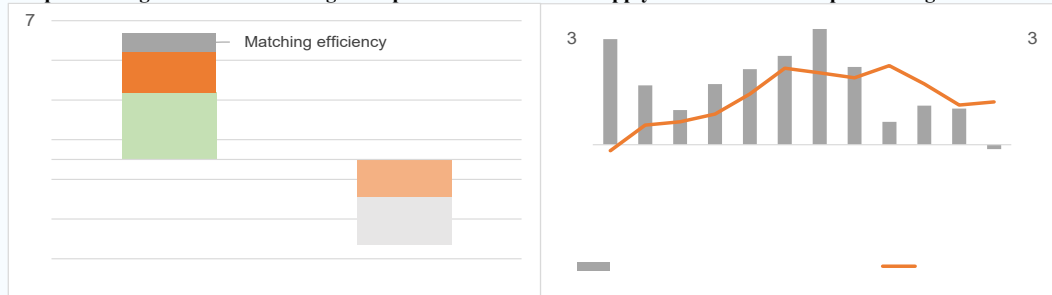
⁽³⁾ Unit root tests (ADF; PP and KPSS) confirms that all series are non-stationary. Matching efficiency is non-stationary when accounting for a break, which is identified in the first quarter of 2011. The matching efficiency is obtained from a Cobb-Douglas matching function defined over the total number of unemployed and vacancies

Box 1.4: The determinants of firms' recent tendency to engage in labour hoarding

Both demand and supply factors have incentivised firms to retain more workers than needed for production during the economic slowdown, a practice known as labour hoarding. Labour market tightness (the ratio between vacancies and unemployment) and profit margins (the ratio between the GDP deflator and unit labour costs) drive changes in labour demand over the cycle. An increase in labour demand raises labour market tightness and reduces firms tendency to retain more workers than needed. Similarly, rising profit margins during a recovery spur employment. Labour shortages, which are likely to be also driven by demographic change (see also Chapter 3), and supply chain pressures capture supply-side constraints. Labour shortages induce firms to retain their workforce, while supply chain disruptions push costs up, encouraging a shift to less energy-intensive, more labour-intensive industries. Finally, better matching of vacant jobs with job seekers (*matching efficiency*), improves employment prospects, making employers more cautious about layoffs ⁽¹⁾. The findings of the regression (Table 1) suggest that labour hoarding increases with intensified supply constraints but weakens with tight labour market conditions and higher profit margins ⁽²⁾.

Labour shortages and labour market tightness are the main drivers of labour hoarding. To ensure consistency across variables with different variability, shocks are quantified based on the average variability of each variable, typically measured by the *standard deviation*. Among the supply factors, labour shortages appear to be the most important driver of labour hoarding. Labour hoarding rises by 3.5 pps in response to a shock to labour shortages (Graph 1, left panel). This figure rises to 5.5 pps in response to a supply chain disruption shock and reaches almost 6.5 pps when the effect of a shock to matching efficiency is included. Conversely, an increase in demand reduces labour hoarding by about 4 pps. Labour market tightness seems to be a more important demand-side factor than profit margins.

Graph 1 Change in labour hoarding in response to demand and supply factors and role of profit margins



The response is computed multiplying the standard deviation of each variable over the period 2020Q1-2023Q4 by the coefficients in column 8 of Table 1. In the right panel, profit margins are relative to the historical average.

Table 1 Determinants of labour hoarding in the EU over different sample periods

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	0.42***	0.30***	0.49***	0.54***	0.34***	0.27***	0.36***	0.39***
	[3.0]	[4.1]	[6.8]	[5.6]	[5.0]	[3.7]	[5.7]	[5.4]
		-1.2***	-1.4***	-1.4***		-1.2***	-1.3***	-1.3***
		[-7.4]	[-13.8]	[-11.0]		[-6.9]	[-10.5]	[-9.8]
	-0.6***	-0.3***	-0.6***	-0.49***	-0.42***	-0.2**	-0.5***	-0.33**
	[-4.8]	[-5.2]	[-8.1]	[-6.2]	[-5.7]	[-2.9]	[-6.0]	[-4.4]
	1.3***	0.5	0.49*	0.55*	1.6***	1.1***	1.4***	1.3***
	[2.4]	[1.4]	[1.66]	[1.68]	[4.7]	[4.3]	[7.1]	[6.4]
				6.5***				5.7***
				[3.95]				[3.7]
R-squared adjusted	0.43	0.71	0.85	0.81	0.31	0.61	0.73	0.69

⁽¹⁾ Matching efficiency represents a catch-all term that refers to all factors that influence the probability of finding a job other than the demand for labour proxied by the labour market tightness.
⁽²⁾ The approach follows the analysis of the determinants of hiring by Doornik et al (2023). They show that hiring intentions tend to rise when firms face difficulties in sourcing non-labour inputs.

Box 1.5: Measuring labour market mismatch and reallocation

The mismatch index is based on Sahin et al. (2014). The index measures the hires that are lost due to misallocation of job seekers. It is obtained comparing the actual allocation of unemployed workers to an ideal one where job seekers can be allocated to different sectors without impediments, given the observed distribution of productivity, matching efficiency, and vacancies across sectors. This is obtained comparing the actual number of hires (h) to an ideal number of hires (h^*) obtained assuming that workers can move freely between different sectors. In this ideal economy, job seekers are employed in industries with higher vacancies and matching efficiency, i.e. they search in the “right sectors”. The optimal allocation implies that the probability to find a job is equal across sectors and determines the optimal number of hires. The mismatch index is defined as the fractions of hires lost due to misallocation of actual hires relative to the optimal ones,

$$M_t = 1 - \frac{h_t}{h_t^*} = 1 - \sum_i \frac{\varphi_i}{\bar{\varphi}_i} \left(\frac{v_{it}}{v_t} \right)^\alpha \left(\frac{u_{it}}{u_t} \right)^{1-\alpha}$$

where φ_i is the matching efficiency of each industry i ; $\bar{\varphi}_i$ is an average matching efficiency weighted with the share of vacancies: $\sum_i \varphi_i^{1/\alpha} \left(\frac{v_{it}}{v_t} \right)^\alpha$ and $\frac{u_{it}}{u_t}$ the share of unemployed stemming from each sector; α is the elasticity of the matching function and represents by how much the probability of finding a job changes when labour market tightness (labour demand) increases. The mismatch is lower the more job seekers and vacancies are aligned, for example when many are searching for a job in a sector with many vacancies. Conversely, if the number of unemployed increases in industries with a low number of vacancies, the index will increase, indicating an inefficient distribution of labour supply across industries. The index equals zero when there is no mismatch and one when there is maximal mismatch. It is also invariant to aggregate shocks that change the total number of vacancies and unemployed without altering their distribution. It is also increasing in the level of disaggregation, which implies that statements regarding mismatch should be qualified with respect to the degree of sectoral disaggregation that is used. The index has been updated for the post-pandemic period by Consolo et al (2022) and individual countries (the UK, Patterson et al 2013; Germany, Bauer, 2013; France, Chalom et al, 2018; Austria, Boheim et al, 2022).

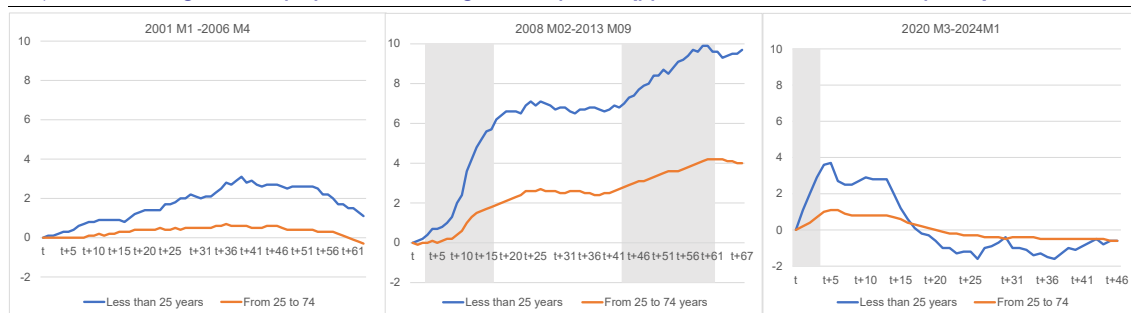
The indicator is obtained combining different datasets. Building the indicator requires a detailed breakdown of unemployment and vacancies by sector. As concerns vacancies, the EU aggregate was obtained aggregating data by country and, when necessary, making data interpolations and splines in case of missing observations. . These data, available at quarterly frequencies, were transformed in annual by averaging to match the frequency of the unemployed data by sector of origin. The indicator requires a measure of matching efficiency by sector which cannot be computed for the EU due to the lack of data of job finding rates at sectoral levels. For this reason, the chart in the chapter shows the Sahin et al baseline index obtained in absence of heterogeneity with respect to matching efficiency. The elasticity of the matching function is set to 0.3. Higher values of α imply higher mismatch but would not its evolution over time. With the available data it was only possible to match the distribution of vacancies with that of sectors only for eleven sectors; this has implications on the level of the index but probably less on its evolution over time.

Excess job reallocation is defined as the sum of gross job creation and absolute gross job destruction minus the absolute value of the net employment change. The excess job reallocation therefore indicates the amount of job movements above what is required to accommodate the observed net employment change. Similarly to Barrero et al (2021), the excess job reallocation rate at quarter t is

$$M_t = \sum_i \frac{z_{it}}{Z_t} |g_{it}^h| - \left| \sum_i \frac{z_{it}}{Z_t} * g_{it}^h \right|$$

Where g_{it}^y is the yearly growth rate for sector i obtained adding the half yearly growth rates of the previous and of the following two quarters: $g_{it} = g_{it-2} + g_{it+2}$; $\frac{z_{it}}{Z_t}$ is the share of total employment in sector i and quarter t . Growth rates are computed as half yearly employment changes as a percentage of the average employment between the initial and the final quarter: $M_{it} = \frac{(N_{it} - N_{it-2})}{0.5(N_{it} - N_{it-2})}$. Calculation is based on a disaggregation of employment in 86 industries. Quarterly data are subsequently averaged to get annual figures.

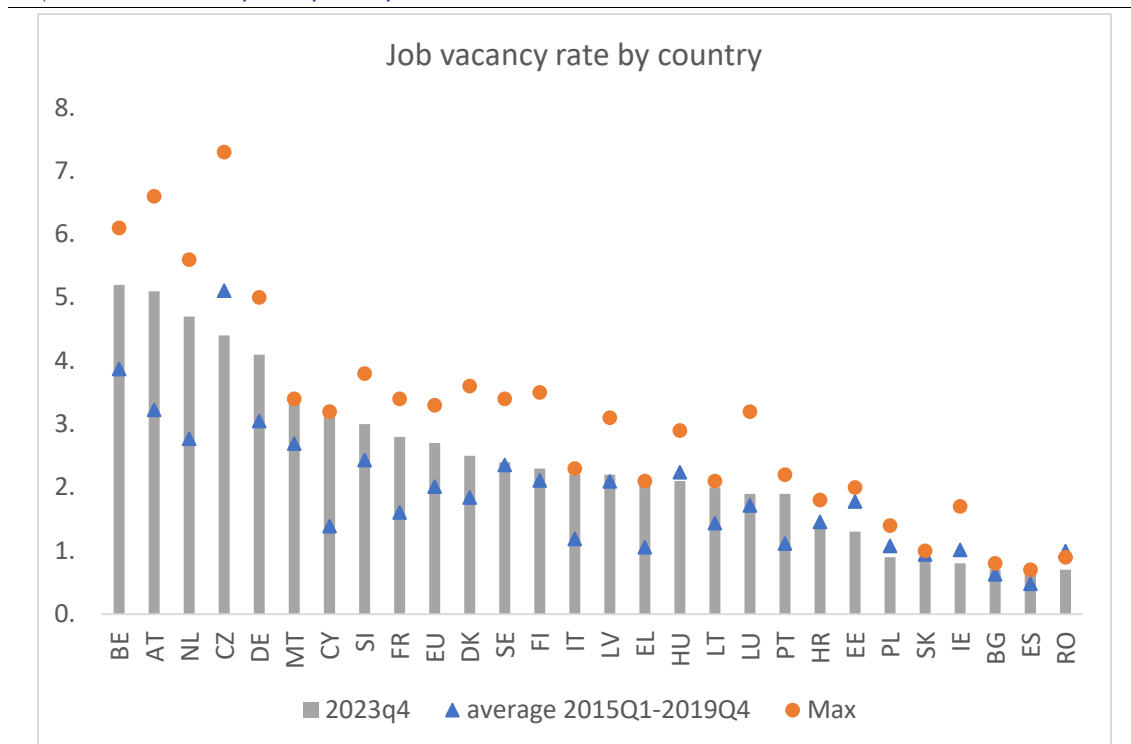
Graph 1.19: **Change in unemployment rate during different periods (pps relative to the start of each period)**



Note: Evolution of the unemployment rate (une_rt_m) for different age groups from the lowest unemployment rate level of each period. In grey months of recession (i.e. two consecutive quarters of negative GDP growth quarter-over-quarter). M1: January; M2: February; M3: March; M4: April; M5: May; M7: July; M9: September.

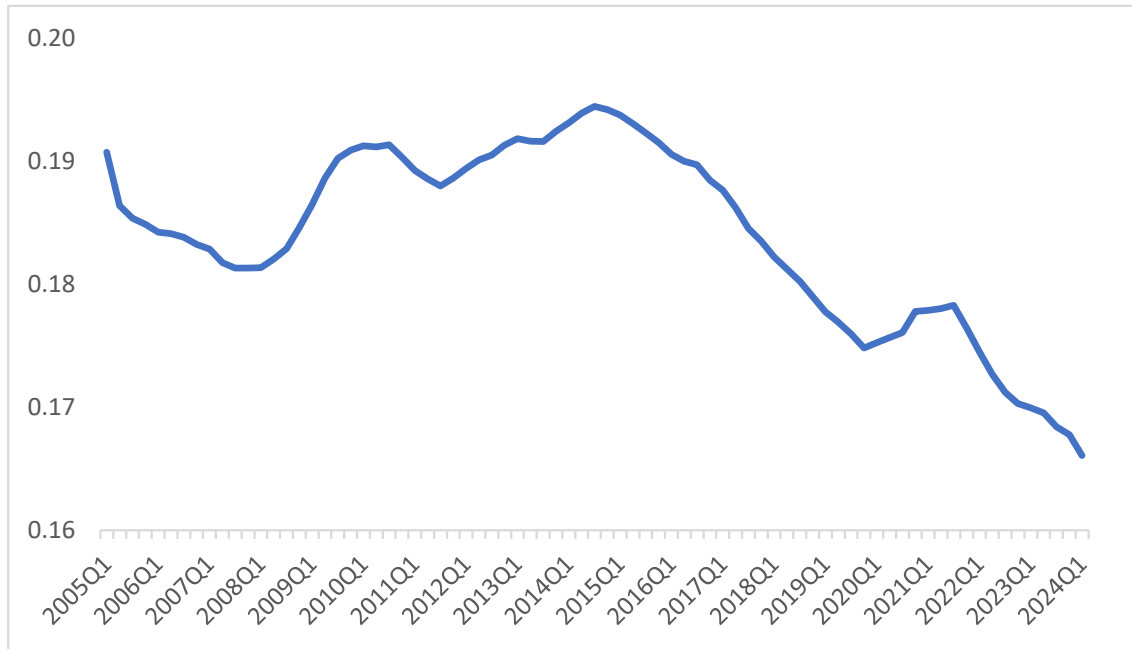
Source: Own calculations based on Eurostat, Labour Force Survey (LFS).

Graph 1.20: **Job vacancy rate by country**



Source: Eurostat, job vacancy statistics.

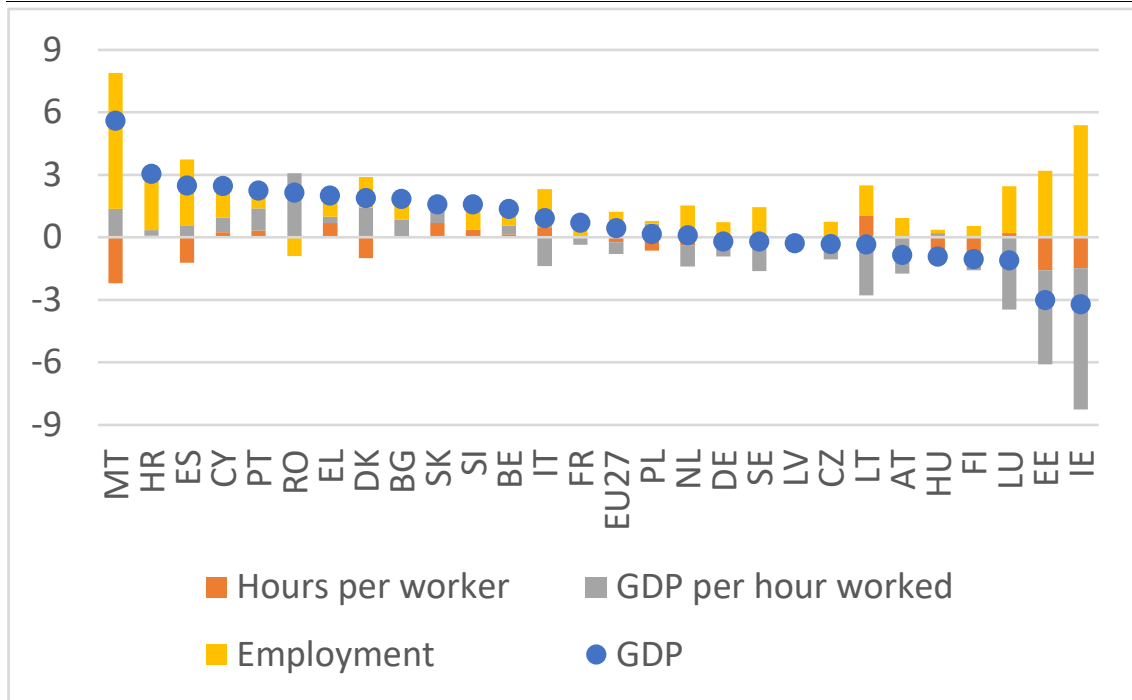
Graph 1.21: **Macroeconomic skill mismatch indicator**



Note: The macroeconomic skill mismatch indicator measures the relative dispersion of employment rates by educational levels. Q1: First quarter.

Source: Own computations.

Graph 1.22: **Contribution to economic growth in 2023 of hourly productivity, average hours worked and employment**



Source: Eurostat, National accounts.

Table 1.3: **Determinants of labour hoarding (panel regression)**

Labour hoarding	Industry				Services			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Employment rate young (15-24) - employment rate old (55-64)	0.01 (0.01)		-0.14 *** (0.03)		-0.04 (0.01)		-0.19 *** (0.04)	
Population young (15-24) relative to old (55-64)		-2.6 *** (1.02)		-11.8 *** (3.2)		-7.6 *** (1.12)		-18.4 *** (3.80)
GDP growth	-0.39 *** (0.06)	-0.38 *** (0.06)	-0.38 *** (0.05)	-0.40 *** (0.06)	-0.53 *** (0.08)	-0.52 *** (0.07)	-0.51 *** (0.06)	-0.52 *** (0.07)
Country fixed effects	No	No	Yes	Yes	No	No	Yes	Yes
R-Squared	0.22	0.22	0.6	0.57	0.26	0.29	0.55	0.55

Note: Panel corrected robust standard error; Feasible Generalised Least Squares to control for cross-section heteroscedasticity. Sample period: 2013Q1-2024Q1; *** significant at 1%.

Source:

2. WAGES AND LABOUR COSTS DEVELOPMENTS IN THE EU AND ITS MEMBER STATES

2.1. INTRODUCTION

Wage developments since 2022 have been shaped to a large extent by the pace of inflation and the challenging economic environment. The high inflation in 2022 sparked by the energy crisis led to a delayed increase in nominal wages, resulting in significant losses in real wages and households' purchasing power. Despite low unemployment rates and the implementation of support measures, living standards for workers and their families declined sharply and a number of social indicators deteriorated. However, inflation rates dropped in 2023 due to lower energy prices, and real wages started to recover mildly in the second half of the year, driven by robust nominal wage growth and falling inflation. Real gross disposable household income already started to increase at the beginning of 2023, also thanks to support measures. Looking forward, wage growth is likely to be constrained by the fragile growth context, with uncertainty around future inflation dynamics and increased concerns around productivity and competitiveness.

Against this background, this chapter reviews wage developments and prospects, and social impacts across income groups. Section 2.2 provides an overview of recent developments in nominal and real wages and their outlook. Section 2.3 discusses the persisting social effects of the high inflation period, for both low- and middle-income groups. Section 2.4 examines the room for further wage increases and the role of productivity growth. Finally, Section 2.5 reviews how policies could support sustainable and fair wages.

2.2. WAGE DEVELOPMENTS AND OUTLOOK

This section looks at recent developments in average nominal and real wages, and how they could develop in the near future. It highlights the recent peak and expected moderation in nominal wage growth (Section 2.2.1) and discusses the rebound in real wage growth thanks to disinflation (Section 2.2.2.).

2.2.1. Nominal wage growth decelerates but is set to remain high

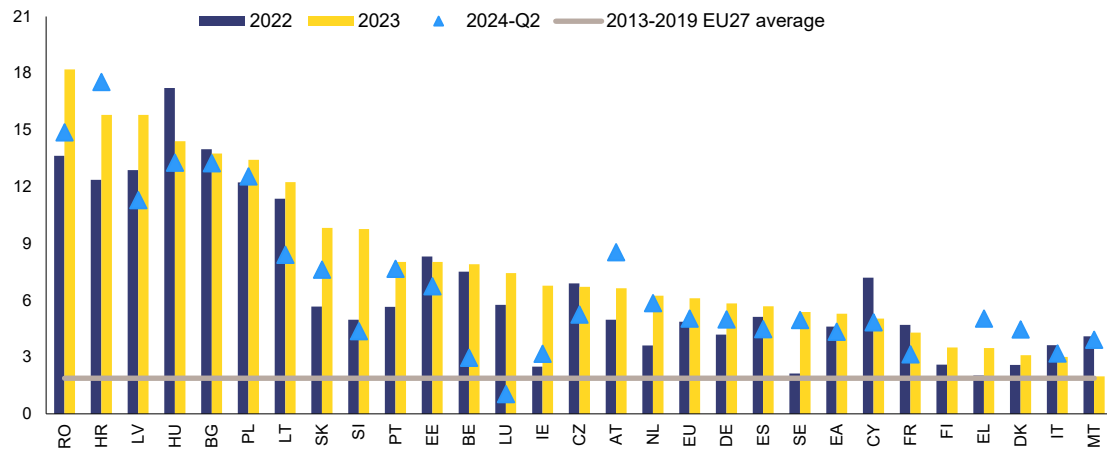
Nominal wage growth in the EU has been robust over the last 2 years but has started to moderate. The growth in nominal compensation per employee ⁽⁶³⁾ reached a record high of 6.1 % in 2023, after 4.9 % in 2022 (Graph 2.1), due to the delayed effect of high and persistent inflation ⁽⁶⁴⁾, as well as historically high labour market tightness ⁽⁶⁵⁾. In the first quarter of 2024 it reached 5.6 % year-on-year before declining to 5.0 % in the second quarter of 2024, in a context of lower inflation and economic slowdown. Wage growth also moderated in the euro area, from around 5.5 % year-on-year in the first two quarters of 2023 to 4.3 % in the second quarter of 2024.

⁽⁶³⁾ Nominal compensation includes gross wages and employer contributions.

⁽⁶⁴⁾ Inflation still stood at 4.9 % in September 2023, before dropping more markedly in the fourth quarter and reaching 3.1% in December 2023.

⁽⁶⁵⁾ The EU unemployment rate and the labour market slack indicator hit record lows in the third quarter of 2023 (5.6 % of the active population and 11.3 % of the extended labour force, respectively) amidst high labour shortages. The indicator of labour market slack measures unmet demand for work and covers the unemployed, underemployed part-time workers and those available for work but not seeking work, as well as those actively seeking work but not available to take up work.

Graph 2.1: **Nominal compensation per employee, annual percentage change**



Note: Nominal compensation per employee is calculated as the total compensation of employees divided by the total number of employees. EA-20 = the 20 countries in the euro area; Q2 = second quarter.
Sources: AMECO database and Eurostat, National accounts [namq_10_gdp, namq_10_a10_e].

The strong growth of negotiated wages has been a major driver of these wage dynamics, as calls to compensate for purchasing power losses accumulated since the end of 2021 have been gaining momentum ⁽⁶⁶⁾. Since the beginning of 2023, negotiated wage growth in the euro area has been significantly above the rates observed since the 2000s (Graph 2.2). They increased by a record high of 5.4 % (on an annual basis) in the third quarter of 2024. Over 2022 and 2023, nominal wages have grown faster than negotiated wages, partly due to sizeable increases in statutory minimum wages (see Section 2.3) ⁽⁶⁷⁾, and as firms have provided sizeable bonuses, which allowed for non-permanent increases in compensation. Since mid-2023, negotiated wage growth has become closer to actual wage growth ⁽⁶⁸⁾.

⁽⁶⁶⁾ It represents the direct outcome of the wage bargaining between social partners. It includes both the newly negotiated and the previously agreed wages. As a general rule, it excludes bonuses, overtime and other individual compensations that are not linked to collective bargaining. Compared with wages paid, negotiated wages are also not sensitive to the number of hours worked (as they are set on a full-time basis) and in some sectors represent a wage floor.

⁽⁶⁷⁾ However, these increases directly affect only a small share of workers, in most Member States less than 10%.

⁽⁶⁸⁾ The ‘wage drift’ captures all elements of actually paid wages and salaries per employee which are not covered by collectively negotiated wages, such as individual bonus payments, or changes in average hours worked. See: European Central Bank (2024).

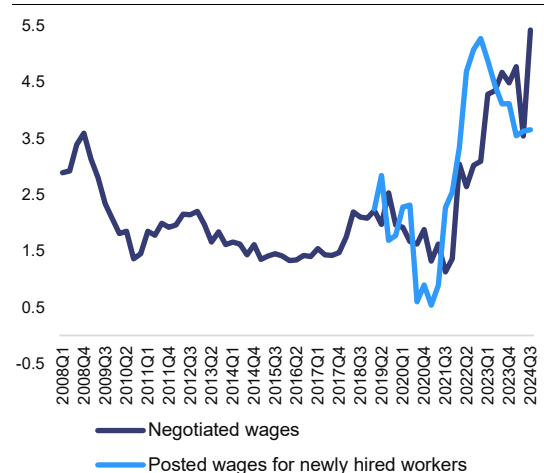
Wage growth still varies significantly between Member States.

The highest nominal wage growth in the second quarter of 2024 was observed to a large extent in central and eastern Member States, at more than 11 % in Bulgaria, Croatia, Latvia, Hungary, Poland and Romania, and between 6 % and 10 % in Estonia, Lithuania and Slovakia, in addition to Austria and Portugal. Many of these countries are characterised by high inflation, in particular Bulgaria, Romania, and Slovakia. By contrast, wage growth was below 3.2 % in Belgium, Ireland, France, Italy, Luxembourg and Finland, where inflation tended to be lower ⁽⁶⁹⁾. Most Member States displayed an increase in wage growth in 2023 compared with 2022, partly thanks to the effects of wage negotiations following the peak in inflation ⁽⁷⁰⁾, but wage growth tended to slow down afterwards in almost all Member States. Overall, while inflation was a major driver of the differences in wage growth across countries, labour market tightness played a less visible role but is likely to have contributed to differences in wage growth between sectors within Member States (see Box 2.1).

Nominal wage growth is set to ease further but remain robust overall.

According to the European Commission's *European Economic Forecast Autumn 2024*, nominal compensation per employee is expected to grow by 4.8 % in 2024 and 3.5 % in 2025. This is well above the 2013-2019 average of around 1.8 % but lower than the 2023 levels (6.1 %), due to the deceleration in inflation and a weak economic context. At the same time, wage growth is still set to be marked by large variations across Member States ⁽⁷¹⁾. The growth rate of wages in job postings (i.e. for newly hired workers) in the euro area also points towards future wage moderation, as it decreased significantly in 2024, and stands below the growth rate of negotiated wages ⁽⁷²⁾.

Graph 2.2: Growth of negotiated wages and of wages in job postings (%), euro area



Note: The wages in job postings or the “wage growth tracker” is an indicator developed by the Central Bank of Ireland. It reflects the pay offered to a newly hired worker in six of the largest euro-area countries (Germany, Ireland, Spain, France, Italy, Spain, and the Netherlands and Ireland). The negotiated wages indicator also covers the wages offered to incumbent workers. Q1 = first quarter; Q2 = second quarter; Q3 = third quarter; Q4 = fourth quarter. Sources: European Central Bank [STS.Q.U2.N.INWR.000000.3.ANR] and Central Bank of Ireland.

⁽⁶⁹⁾ In Belgium, wage growth was more moderate despite tighter labour markets due to the wage setting mechanism which uses an automatic indexation, implying that wage growth is limited beyond indexation.

⁽⁷⁰⁾ An exception is Italy, where the expected inflation is taken into account in wage negotiations, and where wage growth subsequently dropped in 2023. In Member States with automatic indexation mechanisms (notably Belgium, France, Luxembourg, Malta), wage growth remained stable in 2023 as compared to 2022.

⁽⁷¹⁾ In 2024 nominal wages are expected to increase by more than 7 % in Hungary (10.2 %), Bulgaria (9.5 %), Romania (8.9 %), Poland (8.8 %), Slovakia (7.9 %) and Lithuania (7.4 %). This would still represent a marked slowdown in wage growth compared to 2023. The growth rate is foreseen to remain below 4% in Spain (3.9 %), Malta (3.9 %), Portugal (3.7 %), Belgium (3.6 %), France (3.3 %) and Finland (2.7 %), which represents a milder decrease in wage growth compared to 2023. The outlook for further wage growth is however marked by a high uncertainty.

⁽⁷²⁾ The ‘wage growth tracker’ is an indicator developed by the Central Bank of Ireland. It reflects the pay offered to a newly hired worker in six of the largest euro-area countries (Germany, Ireland, Spain, France, Italy and the Netherlands). The negotiated wages indicator also covers the wages offered to existing workers. The decline in the growth rate of wages in job postings (that can be used to predict the tendency for the coming months) was marked in the major euro area economies (except Spain), hinting notably at a sizeable slowdown in nominal wage growth in the coming months in those countries.

Box 2.1: Labour shortages and wages

Labour market tightness is expected to exert upward pressure on remuneration. Labour shortages imply that the supply of workers who are appropriately skilled and willing to work for a given wage rate and under specific working conditions does not meet the demand. In turn, firms facing higher labour shortages pay a wage premium to keep incumbent employees and attract new ones (Brunow et al., 2022; Blanchfower et al., 2008). Recent Commission estimates also show that in the EU an increase of 1 pp in reported labour shortages has triggered a 0.11 pp increase in the yearly wage growth on average over the last two decades ⁽¹⁾.

The positive effect of labour shortages on wages is most evident at the sectoral level. Most evidence shows that sectoral differences in labour shortages have an impact on relative sectoral real wage growth. In particular, sectors with above-average labour demand tend to offer higher wages to attract workers from other sectors (Brunow et al., 2022; Frohm, 2021; Groiss et al., 2023). The European Commission estimates also indicate that the primary effect of sectoral labour shortages is a redistribution of real wage growth towards sectors with greater labour shortages. By contrast, changes in labour shortages within sectors have more limited effects on average real wage growth ⁽²⁾.

Over time, labour shortages can have some conflicting effects on wages. On the one hand, lasting labour shortages may create incentives for firms to invest in technology and substitute labour with more capital- or technology-intensive production techniques. This can improve labour productivity and in turn allow for higher real wages (Acemoglu et al., 2017; Acemoglu et al., 2019; Zeira, 1998). On the other hand, skills shortages can also adversely affect production and hinder innovation, thereby constraining wage developments over time (Horbach et al., 2020; Coad et al., 2015).

In the years preceding the COVID-19 pandemic, aggregate wage growth remained sluggish in many advanced economies, despite the rise of reported labour shortages and low unemployment (Frohm, 2021). Several explanations for this have been put forward, including globalization (Borio et al., 2018), automation (Leduc et al., 2020), lower matching efficiency in the labour market (Jonsson et al., 2019), weaker bargaining power of labour (Krueger, 2018), and real wage growth being hindered by persisting misperceptions among employees about the opportunities and benefits of changing jobs hindering (Jäger et al., 2023). Labour shortages declined during the COVID-19 pandemic, but reached record high levels afterwards. Nonetheless, real wages experienced deep losses over 2021-2023.

Since the COVID-19 pandemic, the effect of labour shortages on real wage growth has weakened further. Commission estimates show that while before 2020 there was a clear link between sectoral and country-specific labour shortages and real wage growth, such a link becomes statistically insignificant after 2020. On top of on-going structural trends, specific factors may have an effect, notably the following:

-
- ⁽¹⁾ A set of panel regressions is used to explore the relationship between labour shortages and real wage growth. First, the annual real wage growth by sector is regressed on reported labour shortages, with a country- and sector-specific fixed effect (that captures differences stemming from countries or sectors) and a time fixed effect (that component of wage growth that is common to all countries and sectors, notably related to the underlying inflation). Second, to identify changes after the pandemic the same regression is estimated including a break in the response of wage growth to labour shortages after 2020.
- ⁽²⁾ The structure of R-squared indicates that a large share of the variability comes from between and not within country-sectors. This implies that cross-sectoral and cross-country variability in labour shortages has a greater impact on sectoral and country-specific real wage growth than the developments over time of labour shortages within a specific sector do (periods of more pronounced labour shortages and vice versa do not have a pronounced effect on real wages).

(Continued on the next page)

Box (continued)

- The energy crisis has disproportionately affected wages in many central or eastern European Member States, due to a higher share of energy-intensive sectors, even where labour markets were tight (e.g. in Bulgaria, Croatia, Hungary, Poland and Slovakia). This has weakened the link between labour shortages and wages among countries, but this link remains evident at sectoral level. The higher wage growth witnessed in low-paid sectors may reflect the very high labour shortages witnessed after the pandemic (ECB, 2022) ⁽³⁾, but also strong minimum wage increases (see also Section 2.3.2).
- Furthermore, since 2022, employers and employees may have taken into account the high economic uncertainty and slow wage growth in their wage decisions (Borland, 2023).
- In addition, in some sectors higher wage growth may have lowered demand for some non-essential products, particularly during the cost-of-living crisis.

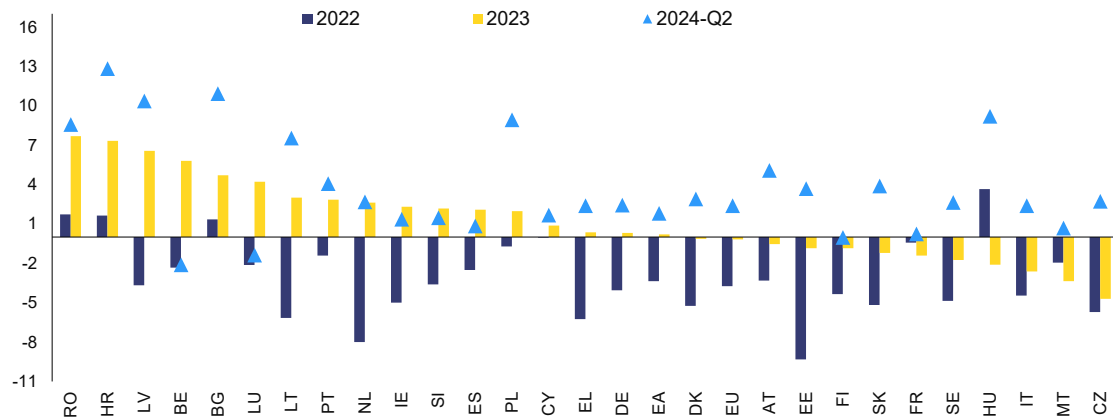
Further research is needed to assess to what extent the decoupling between real wage growth and labour shortages is temporary or more structural.

⁽³⁾ In particular in contact-intensive services, after the end of lockdown measures and voluntary social distancing.

2.2.2. A mild rebound in real wage growth

After a substantial decline in 2022, real wages in the EU started to edge upwards in the second half of 2023. They declined substantially in 2022, by 3.9 %, and continued their drop in the first half of 2023 (leading to a further decline by 0.4 % in 2023). However, real wage growth turned positive in the second half of 2023 and reached 2.4 % in the second quarter of 2024, compared with the same quarter of the previous year (Graph 2.3). Real wages recovered due to falling inflation, and despite stagnating nominal wage growth, higher labour market participation and increased uncertainty about labour market prospects.

Graph 2.3: Real wages per employee, annual percentage change



Note: Real wages were computed using the harmonised index of consumer prices as a deflator. EA-20 = the 20 countries in the euro area; Q2 = second quarter.
Sources: AMECO [5 0 0 0 HWWDW, 5 0 0 0 ZCPIH] and Eurostat [namq_10_gdp, namq_10_a10_e, prc_hicp_midx].

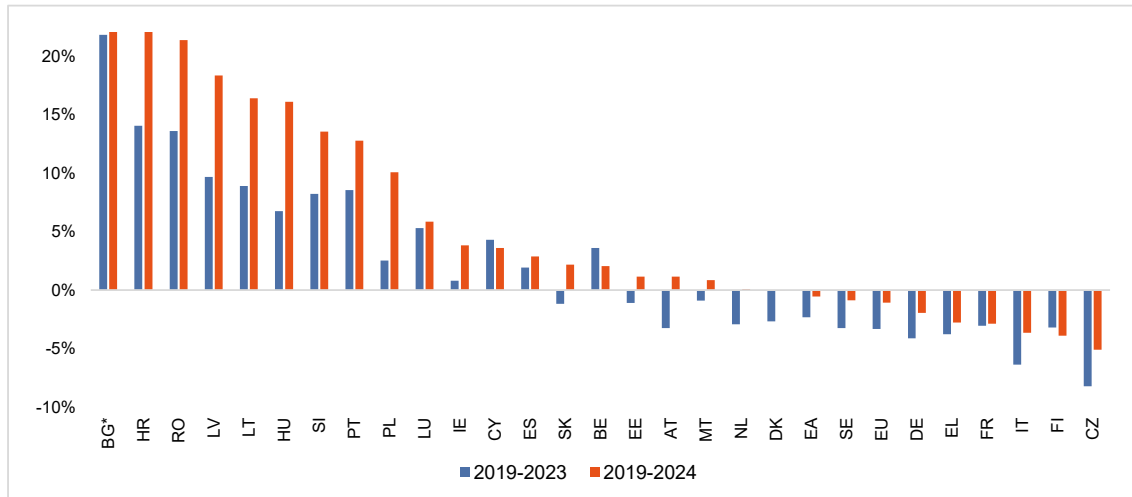
Nominal wage growth has started to exceed inflation in almost all Member States. Relatively strong real wage growth (on an annual basis) was observed in the second quarter of 2024 in many central and eastern European Member States (except in Slovenia and to a lower extent in Czechia), in line with their catching-up process in GDP per capita and a rebound in real wages after deep losses in 2022. Real wages also increased by 3 to 5 percentage points (pps) in Denmark, Austria and Portugal. By contrast, real wages did not show a clear rebound in southern European Member States (except Portugal), Ireland and Sweden, and were almost stable in France and Finland. In Belgium and Luxembourg, real wages decreased (by -2.1 pps and -1.4 pps, respectively), after a strong rebound in 2023.

Real wages in the EU are expected to continue growing throughout 2024. After decreasing by 0.2 % in 2023 as a whole, real wages in the EU are set to rise by 2.3 % in 2024 and recover some of their lost ground, according to the *European Economic Forecast Autumn 2024*. This is notably due to the expected further decline in inflation and the moderating but still robust nominal wage growth. Real wage growth is expected to increase and be positive in almost all Member States throughout 2024, except in Belgium (-1.5 %) and Cyprus (-0.7 %) and Finland (-0.7 %). It is set to reach more than 5 % in Bulgaria, Croatia, Latvia, Lithuania, Hungary, Poland, and Romania.

However, despite the expected increases in 2024, real wages could still be 1.1 % below their pre-pandemic levels, with wide differences across Member States (Graph 2.4) ⁽⁷³⁾. The gap compared with their 2019 levels is expected to remain particularly large in Italy, Greece (which display low nominal wage growth) as well as Czechia (which faces very high inflation), Germany, France and Finland. Nonetheless, real wages in many Member States in southern and central and eastern Europe are converging towards the EU average. Notably, the gap in compensation per employee in purchasing power standards relative to the EU average is projected to be lower in 2024 than in 2019 in all central and eastern European Member States. By contrast, in southern European Member States, this gap is set to decrease sizeably only in Portugal, while it is expected to grow in Greece, Cyprus and Malta (see Graph A.2 in the annex).

⁽⁷³⁾ Real wages were computed using the harmonised index of consumer prices as a deflator, rather than the GDP deflator. Consumer inflation is based on the prices of goods and services of a fixed basket bought by consumers. In contrast, the GDP deflator covers all domestic products and services produced in an economy, including those that are exported. Consumer inflation is therefore considered to be a better deflator for wages for the purpose of this report.

Graph 2.4: Real wage changes (%) compared with pre-pandemic levels (2019)



Note: Real wages were computed using the harmonised index of consumer prices as a deflator. EA-20 = the 20 countries in the euro area.
* For Bulgaria, real wages increased by 33,9% between 2019 and 2024 (out of the scale of the graph).
Sources: AMECO [5 0 0 0 HWWDW, 5 0 0 0 ZCPIH].

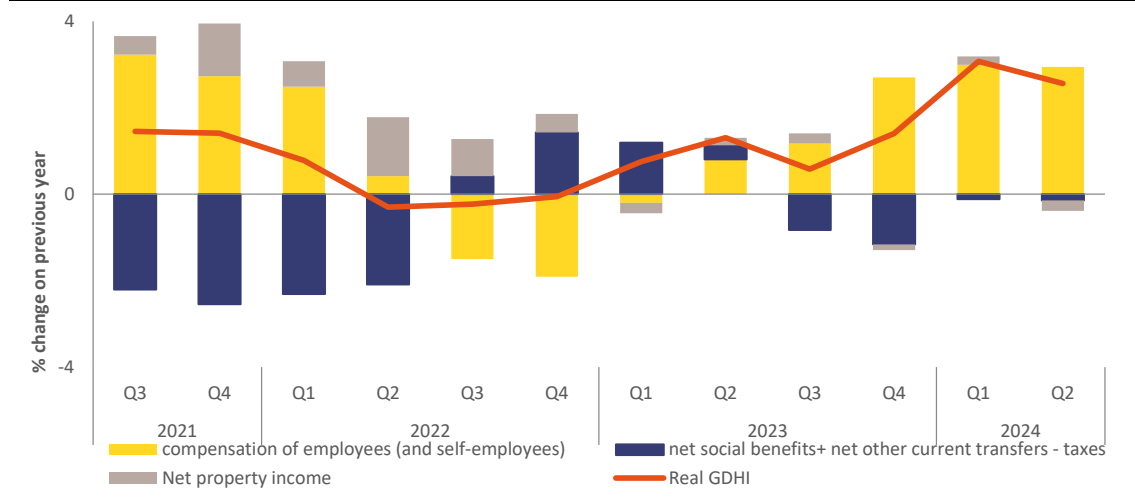
2.3. THE LASTING SOCIAL EFFECTS OF THE HIGH INFLATION PERIOD AND FAIRNESS ISSUES

The sizeable drops in real wages from the end of 2021 onwards have had a large negative impact on low- and middle-income households. This decline in real wages reflected to a large extent high inflation rates primarily driven by soaring energy and food prices, which both account for a significant proportion of these households' expenditures. Despite support measures and higher wage growth, their purchasing power eroded over 2022-2023. This section delves into the social consequences of this decline in purchasing power, examining the interrelated challenges of declining purchasing power, material deprivation, and financial distress among workers (Section 2.3.1). It also investigates the disproportionate impact on low-wage earners and middle-income groups (Section 2.3.2), as well as the implications for labour shares and concerns about fairness (Section 2.3.3).

2.3.1. Scars of the 2022-2023 high inflation period are still visible

Households' purchasing power losses have been mitigated by recent wage developments, as well as by transfers and tax reductions, though the role of the latter has diminished recently. The growth of real gross disposable household income (GDHI) started to decline at the beginning of 2022 and turned negative for most of the year, reflecting a drop in the real compensation of employees and real net property incomes. GDHI growth turned positive again at the beginning of 2023, mainly driven by a recovery in wage growth and an increase in net social benefits (see Graph 2.5). Direct transfers and tax policies (notably reductions and non-indexation of tax thresholds) were a major driver of real GDHI growth until the second quarter of 2023, following the introduction of support measures during the energy crisis. But since the second half of 2023, their contribution declined and turned negative, partly due to the withdrawal of these measures.

Graph 2.5: Real GDHI growth and its main components, EU



Note: The nominal GDHI is converted into real GDHI by deflating values using the deflator (price index) of household final consumption expenditure. Net transfers notably include net social benefits and taxes on income and wealth (negative contributions). GDHI = gross disposable household income; Q1 = first quarter; Q2 = second quarter; Q3 = third quarter; Q4 = fourth quarter.

Sources: European Commission calculations based on Eurostat, National Accounts [nasq_10_nf_tr and namq_10_gdp].

At the same time, the material and social deprivation of employees increased in both 2022 and 2023 despite the rebound in households' purchasing power⁽⁷⁴⁾. The share of individuals of material and social deprivation for employed people in the EU increased from 7.2 % in 2021 to 8.2 % in 2022 and 9.1 % in 2023. One reason is that lower-income households have been more affected by the increases in prices in energy and food, which represent a relatively higher share of their consumption basket. Most Member States experienced increases between 2022 and 2023, from 0.1 (Latvia) to 3.0 (Lithuania) pps but the rate continued to fall in Romania (-4.4 pps), Ireland (-1.8 pps), Greece (-1.4 pps), Cyprus (-1.3 pps), Croatia (-1.2 pps) and Estonia (-0.6 pps). In the latter group of Member States the rebound in real wages helped cushion the impact of high inflation on low-income households.

High financial distress also persists among employees, with large differences across Member States. The proportion of workers reporting financial distress⁽⁷⁵⁾ increased significantly, peaking at 15.5 % in February 2023 for the EU, 5 pps higher than in January 2022 and more than 3 pps higher than in the pre-pandemic period. It then stabilised at high levels, reaching 13.7 % in August 2024, even though real wages started to grow again in the second half of 2023. Between 2021 and August 2024, the reported financial distress for workers increased in all but six Member States⁽⁷⁶⁾ (Graph 2.6). The largest increases were recorded in Estonia, Romania, Malta, Hungary and Greece (above 7 pps), followed by France and Denmark (4 to 7 pps). Five of these Member States⁽⁷⁷⁾ experienced deep losses in real wages in 2022 and a weak or no rebound in 2023.

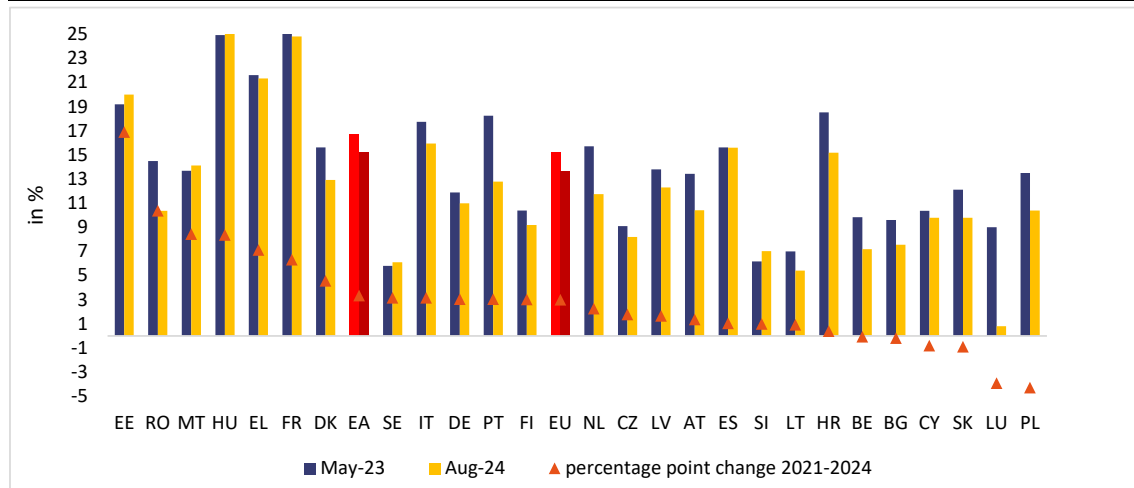
⁽⁷⁴⁾ Material and social deprivation refers to the inability to afford a set of specific goods, services, or social activities that are considered by most people as essential for an adequate quality of life. It is measured as the percentage of households that experience a lack of at least 5 out of the 13 deprivation items.

⁽⁷⁵⁾ The European Commission 'business and consumer surveys' define financial distress as the need to draw on savings or to run into debt to cover current expenditures.

⁽⁷⁶⁾ Between 2021 and August 2024 financial distress decreased in Belgium, Bulgaria, Cyprus, Luxembourg, Poland and Slovakia.

⁽⁷⁷⁾ Denmark, Estonia, Greece, Malta and Sweden.

Graph 2.6: Financial distress of workers



Note: Information on the financial distress of workers in 2023 and 2024 is given in percentages; information on change between 2021 and 2024 is given in percentage points.

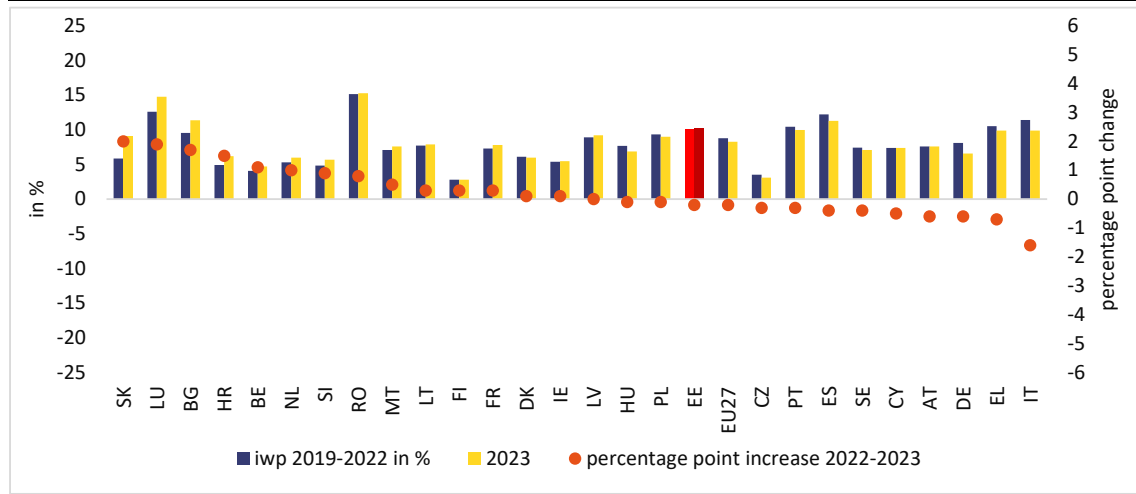
Source: European Commission, Business and consumer surveys

In-work poverty continued to decline, but in some countries this reflected deeper losses for middle-income households than for lower-income ones ⁽⁷⁸⁾. At the EU level, in-work poverty continued its long-term downward trend since 2015, standing at 8.3 % in 2023 (based on 2022 incomes) and is forecast ⁽⁷⁹⁾ to remain at 8.4 % in 2024 (based on 2023 incomes). At the level of Member States, the rate increased in 14 countries in 2023 (based on 2022 incomes), notably in Bulgaria, Luxembourg and Slovakia, pointing to a rise in the share of vulnerable workers (Graph 2.7). By contrast, in 12 countries in-work poverty diminished. This means that for these countries real median incomes tended to decline proportionally more than the incomes of the poorest, since in-work poverty is a relative measure that compares low incomes to median incomes. Indeed, most of these countries have experienced very high inflation and large drops in real wages. Therefore, the share of vulnerable workers may not have decreased as suggested by the fact that material and social deprivation and financial distress tended to increase in those countries (Graph 2.6). Overall, the analysis in this subsection shows that the impact of the high inflation on workers varied along the wage distribution, with important differences across Member States. Section 2.3.2 delves deeper into income dynamics for different income groups.

⁽⁷⁸⁾ In-work poverty refers to the percentage of persons in the total population who are employed or self-employed and at risk of being relatively poor, that is they have less than 60 % of the national median equivalised disposable income after social transfers

⁽⁷⁹⁾ The flash estimates are based on microsimulations and macro-economic models. Their aim is to provide timelier social statistics. Since this is a forecast, these estimates should be interpreted with care. <https://ec.europa.eu/eurostat/web/experimental-statistics/income-inequality-poverty-indicators>

Graph 2.7: **In-work at-risk-of-poverty rate for employees**



Note: Total in-work poverty for 2019–2022 in percentages and total in-work poverty for 2023 in percentages are displayed on the left axis; percentage point increases for 2022–2023 are on the right axis. Data are ordered by the change in percentage points between 2022 and 2023. IWP = in-work poverty.
Source: Eurostat, in-work at-risk-of-poverty rate [ilc_iw01]; data based on EU Statistics on Income and Living Conditions.

2.3.2. Vulnerabilities increased for low-wage earners and the middle-income groups

Wide parts of society have been affected by the decline in purchasing power, leading also to marked changes in the income distribution. While on average income inequality in the EU has been overall stable ⁽⁸⁰⁾, income variations by deciles ⁽⁸¹⁾ over 2022-2023 (Table 2.1A in the annex) reveal a mixed picture. In 2022, lower and medium-income deciles were disproportionately affected in a majority of Member States, while in 2023 higher income deciles were affected to a greater extent ⁽⁸²⁾ (see Table 2.2A in the annex). These developments led to differentiated changes in the income distribution at the Member States level. Between 2021 and 2023 the lowest income deciles lost 0.3 pps or more in their share of national equivalised income in 15 Member States suggesting a rise in income inequality (see Graph 2.8) ⁽⁸³⁾. Simultaneously, the share of national equivalised income increased for the lowest income deciles in 10 Member States – with the highest increases observed in Greece, Spain and Romania – hinting at a decrease in income inequality.

Support measures and minimum wage increases helped protect low-wage earners, though to different degrees across Member States. Exceptional support measures put in place to protect households from the effects of high inflation tended to benefit the lower income deciles to a greater extent. In Member States in which less than 2 % of GDP was allocated to exceptional support measures, the lower income deciles lost more than other income deciles (Graph 2.8) ⁽⁸⁴⁾. In other Member States, including Bulgaria, Germany and Poland, relatively larger support measures and significant increases in minimum wages supported low-wage earners’ real incomes relative to higher income deciles. Losses in real income for all income groups may not be fully recovered in the short term. It is therefore important to address the remaining social consequences of the decline in purchasing power, with particular attention to vulnerable low-income and lower middle-income households.

⁽⁸⁰⁾ As reflected by the slight decline in S80/S20 income quintile share ratio.

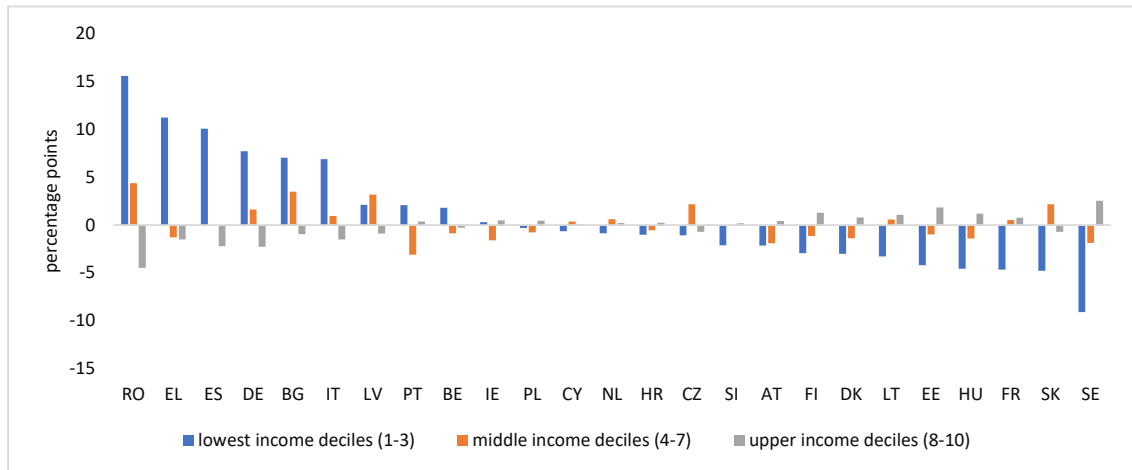
⁽⁸¹⁾ Calculations are based on a proxy in relation to the cut-off values for the deciles.

⁽⁸²⁾ Except for Denmark, Estonia, Ireland, Austria, Portugal and Sweden.

⁽⁸³⁾ The highest losses were in Sweden (9.0 pps), Slovakia (4.8 pps) and France (4.5 pps).

⁽⁸⁴⁾ Between September 2021 and January 2023, less than 2 % of GDP was allocated by governments to shield households and firms from the energy crisis in Denmark, Finland, Cyprus, Sweden Ireland, Hungary, Belgium and Estonia. Many measures were withdrawn in 2023 with the fall in energy prices (Sgaravatti et al., 2023).

Graph 2.8: Average change in the nationally equalized income for the lower, middle and upper income deciles for 2021-2023 across Member States



Sources: EU -Statistics on Income and Living Conditions and European Community Household Panel Surveys, Eurostat [ilc_di01]

Statutory minimum wage increases broadly offset losses in purchasing power for minimum wage earners in most Member States. Between January 2022 and July 2024 statutory minimum wages grew in nominal terms by more than 10 % in all Member States where such wages are in place ⁽⁸⁵⁾. In real terms, they increased by more than 10 % in eight countries, and by 4 to 10 % in another six countries, while they declined in France by 1.3 % and by more than 3 % in Czechia and Slovakia (Graph 2.9). These minimum wage developments, associated with high labour shortages, probably contributed to higher increases in hourly wages in sectors where low-wage earners are more represented. During the high-inflation period in 2022-2023, lower-paying sectors such as wholesale and retail trade, transport, accommodation and food services or construction, have seen higher growth rates than other, on average higher paying sectors ⁽⁸⁶⁾.

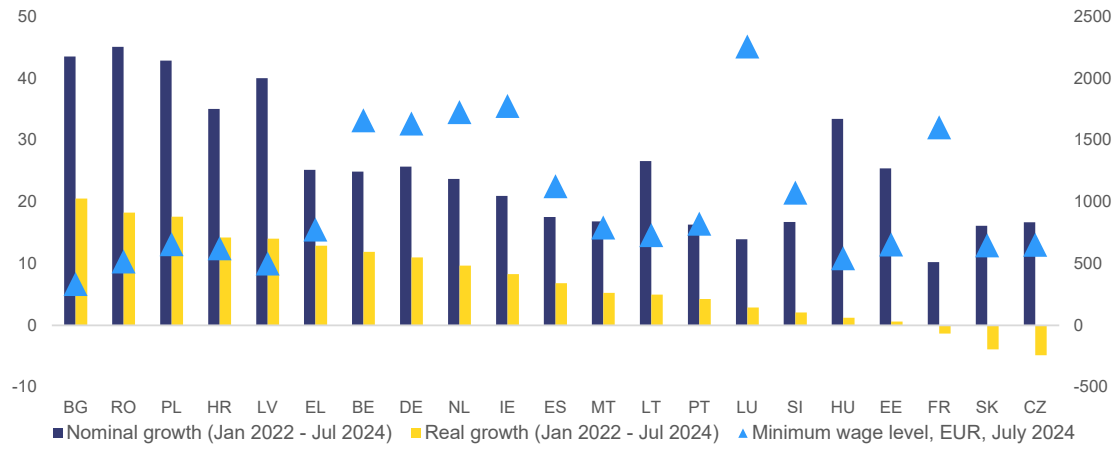
Although difficult to assess, non-compliance with minimum wage protection, either statutory or based on collective bargaining, may be a challenge in some Member States (see Box 2.2). It is estimated that countries where minimum wages are closer to the average or median wage tend to have higher non-compliance ⁽⁸⁷⁾. Also, young people, unskilled workers, women, workers in smaller firms, part-time workers, and those working in the services sectors may be particularly affected by non-compliance with existing minimum wage protection rules. Improving compliance would allow more workers to receive a higher remuneration in practice, in line with national minimum wage regulations.

⁽⁸⁵⁾ All but five Member States (Denmark, Italy, Austria, Finland and Sweden) have statutory minimum wages. They notably increased by more than 40 % in Bulgaria, Latvia, Romania and Poland, all countries with relatively low minimum wage levels. However, growth was also strong, at more than 20 %, in Belgium, Germany, Estonia, Ireland, Croatia, Greece, Lithuania, Hungary and the Netherlands, some of them with already relatively high minimum wage levels.

⁽⁸⁶⁾ Hourly wages are proxied by the labour cost index. The financial sector, information and communication, professional, scientific, and technical activities, the real estate sector and manufacturing continue to pay comparatively high wages. However, hourly wages increased more in the wholesale and retail trade and construction sector (see Graph 2.16 in the annex).

⁽⁸⁷⁾ Calculations are based on EU Statistics on Income and Living Conditions (SILC) data and refer to the so-called Kaizt indexes measured by the ratio of the minimum wage to the average or median wage.

Graph 2.9: Minimum wage developments in Member States with statutory minimum wages



Note: Cyprus was excluded as the statutory minimum wage was introduced in 2023.
 Sources: Eurofound and Eurostat [earn_mw_cur, prc_hicp_midx].

Box 2.2: Estimating non-compliance with minimum wages

Many workers in the EU, who are in theory covered by minimum wage protection, receive lower remuneration in practice (European Commission, 2020). The estimated average rate of non-compliance across the EU based on data from EU-Statistics on Income and Living Conditions (EU-SILC) is 8.1 %, while that calculated on the basis of data from the Structure of Earnings Survey (SES) is 1.43 % (both figures are based on the 2018 waves of surveys). Estimations of non-compliance per Member State also widely differ, with much higher rates obtained when using data from EU-SILC than when using the SES. This divergence could be due to differences in the target groups of the surveys, since the SES only covers larger firms (more than 10 employees) and data is reported by employers (who are less likely to report that they are paying wages below the minimum), while for EU-SILC the respondents are households ⁽¹⁾.

High rates of non-compliance with minimum wage protection are reported in eight Member States. Based on EU-SILC data, the countries where non-compliance is estimated to affect more than 8 % of the workforce are Germany, Spain, Italy, Cyprus, Lithuania, Hungary, Portugal and Sweden. This group includes two countries where minimum wage protection is provided only by collective agreements (Italy and Sweden). By contrast, the non-compliance rates estimated for Belgium, Czechia, Malta, Slovakia and Finland are relatively low (less than 2 %). While these estimates should be read with caution, they provide an indication of the relative magnitude of the problem. Estimations for Germany and Italy (Eurofound, 2023), for instance, roughly coincide with those in previous studies (DIW, 2019; Garnero, 2018; and Garnero et al., 2022).

Young people, unskilled workers, women and workers in smaller firms, as well as part-time workers, are more affected. These workers, who are affected by non-compliance, are generally younger, less educated, and more likely to be female, on a fixed-term or part-time contract and employed by smaller firms (Eurofound 2023). This seems logical as they correspond to the groups that are more likely to earn the minimum wage, as highlighted in Recitals 10 and 14 of the directive on adequate minimum wages ⁽²⁾. Regarding the sectoral composition, non-compliance is relatively higher in the agriculture, construction, and services sectors than in the manufacturing sector (8-13 % versus 6 %).

For some Member States, estimated non-compliance rates are significantly higher when using hourly wages instead of monthly wages, suggesting the existence of non-declared working hours. Higher rates of non-compliance when using hourly wages are notably observed in Bulgaria, Croatia, Cyprus, Luxembourg and Portugal and, to a lower extent, in Germany and Italy. This suggests that some employers may impose longer hours on workers than stated in their contract, so that they may seem to comply with minimum wages calculated on a monthly basis but do not comply on an hourly basis.

The directive on adequate minimum wages aims at reducing non-compliance. One of its main objectives is to establish a framework for enhancing the effective access of workers to minimum wage protection. It obliges Member States with statutory minimum wages to take measures to strengthen its enforcement, by providing for effective, proportionate and non-discriminatory controls and field inspections, as well as by developing the capability of their enforcement

⁽¹⁾ The measurement error arises because reported working hours are those current at the time the survey was taken, while earnings are those received the year prior to the survey. The advantage of EU-SILC is that it covers the entire working-age population and asks workers to report their own incomes. At the same time, its results should also be interpreted with caution as hourly wages in EU-SILC may contain inaccuracies.

⁽²⁾ Directive 2022/2041.

(Continued on the next page)

Box (continued)

authorities ⁽³⁾. In addition, it requires all Member States to reinforce compliance through measures related to public procurement, information, right to redress, protection from adverse treatment and penalties ⁽⁴⁾.

⁽³⁾ Article 8 of Directive 2022/2041.

⁽⁴⁾ Articles 9, 11, 12 and 13 of Directive 2022/2041.

2.3.3. Labour share developments have raised fairness concerns

In the last two decades the labour share, that is the part of national income allocated to employees as compensation, slightly declined, amid cyclical fluctuations ⁽⁸⁸⁾. The labour share dropped from 63.6 % in 2000 to 62.3 % in 2017, with part of the decrease over that period explained by Ireland, and then slightly increased to 62.8 % in 2019 ⁽⁸⁹⁾. It increased further during the COVID-19 pandemic to 63.3 % in 2020 because of labour hoarding by firms and job-retention schemes adopted by governments. However, the labour share started to drop again to 61.6 % in 2022 with the gradual roll-back of these retention schemes and the witnessed decline in real wages. In parallel, the business profit share in the EU (and a majority of Member States) has remained above pre-pandemic levels in the last few quarters. It reached 46.2 % on average between the first quarter of 2023 and the first quarter of 2024, compared with 45.5 % in 2019 ⁽⁹⁰⁾. These developments have raised questions on how to ensure a fair sharing of the burden of the remaining social challenges between companies and workers ⁽⁹¹⁾. Going forward, the labour share is expected to bounce back to 62.5 % in 2024, thanks to the mild rebound in real wages, and to remain stable in 2025. Although these wage dynamics will help to make up for most of the losses in the labour share in recent years, it is forecast to still remain slightly below its 2019 level in most Member States. For most Member States, the changes in the labour share between 2000 and 2017 have been mainly due to within-sector changes rather than shifts of economic activity between sectors.

Over the past few decades structural factors have put downward pressure on the labour share in Member States as well as other advanced economies and are also likely to affect it in the future ⁽⁹²⁾. Digital technologies as well as artificial intelligence can be important engines of job creation and productivity but may also lead to sectoral disruptions, job displacement and further polarisation in the workforce between low- and high-skilled employees ⁽⁹³⁾. In addition, the ongoing shift of economic activity towards services and the development of alternative forms of work, such as platform work or

⁽⁸⁸⁾ Wages and employment are less easily adjustable than output, due to the rigid nature of labour markets and labour hoarding during recessions. This leads to rising labour shares during recessions and declining ones during recoveries. This was also visible during the financial, economic and debt crisis that started in 2009 and the COVID-19 recession in 2020 (see also Chapter 1). The moderate decoupling between labour productivity and wage growth between 2000 and 2019 means that real wages have increased at a lower rate than productivity. As a result, capital has claimed a growing share of productivity gains.

⁽⁸⁹⁾ Based on the AMECO database. The labour share is calculated as the ratio of total compensation per employee over nominal GDP per person employed. The labour share of Ireland decreased from 52.6 % in 2000 to 35.6 % in 2019, which accounted for more than half of the decline in the EU-wide labour share during that period.

⁽⁹⁰⁾ The business profit share is defined as [gross operating surplus](#) divided by [gross value added](#). Due to its volatility, an average over four quarters is considered. In Greece, Ireland, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, the Netherlands and Slovenia, the increase in business profit share is sizeable (by 1.5 pps more, compared with 2019). In Czechia, Germany, France, Italy, Slovakia and Sweden, the increase was also significant (by 1–1.5 pps). In Belgium, Denmark, Croatia, Poland and Romania, it remained stable (increased or decreased by less than 1 pps) and in Bulgaria, Estonia, Spain, Austria, Portugal and Finland it decreased (by 1–1.5 pps).

⁽⁹¹⁾ OECD (2023c). This has also led governments to increase taxation of (super-) profits.

⁽⁹²⁾ Schneider (2011).

⁽⁹³⁾ OECD (2018c), Pissarides and Maayan (2023).

remote working, can contribute to a further decline in unionisation rates and workers' bargaining power, which may in turn weigh on the labour share ⁽⁹⁴⁾. The possible future slowdown in globalisation could mitigate the decline in labour shares through less offshoring, although this depends on whether local jobs are sustainable in light of the growing competitive pressure from abroad.

2.4. DRIVERS OF AND SCOPE FOR SUSTAINABLE WAGE GROWTH

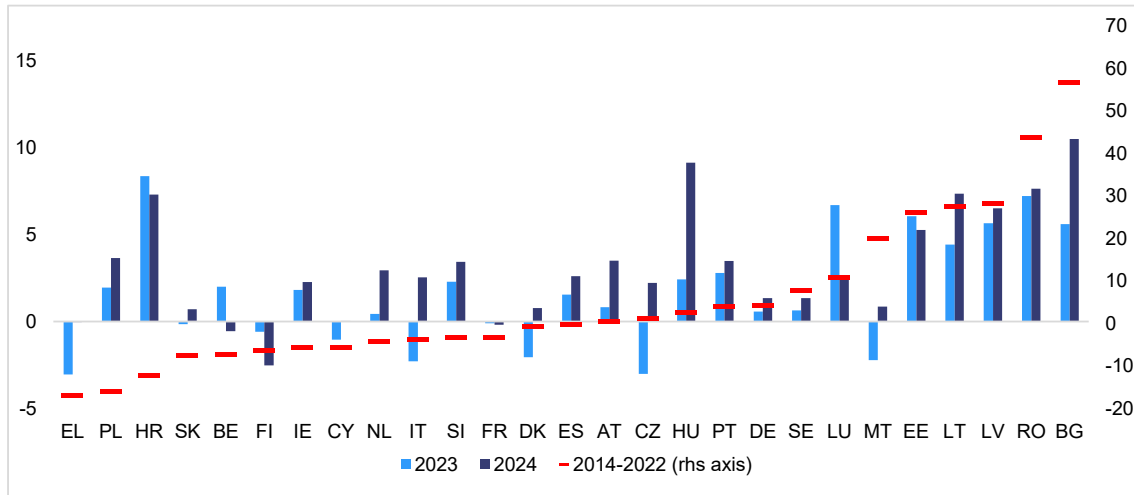
The challenges related to the decline in purchasing power, as identified above, raise the question of whether there is leeway for further increasing wages in a sustainable way. This section analyses the factors that may affect the room for wage increases at the EU level (Section 2.4.1) and the differences across Member States and sectors (Section 2.4.2).

2.4.1. Conflicting factors determine the leeway for further wage growth

Over the last decade, wage growth has been lower than predicted on the basis of its main macroeconomic drivers in many Member States, but this is likely to change in 2024. The growth of nominal compensation per employee can be compared with a 'benchmark' growth rate predicted by developments in macroeconomic drivers. This helps assess current wage dynamics, despite its backward-looking character. This year, a number of revisions have been introduced to the baseline wage benchmark methodology to improve its performance and time coverage (see Box 2.3). Cumulated over 2014 to 2022, wage growth was below its benchmark in about half of the Member States, most notably in Greece, Croatia and Poland (Graph 2.10). Instead, wage growth was well above the benchmark in Bulgaria, Estonia, Latvia, Lithuania and Romania. In 2023, the rebound in real wages started and wage growth is forecast to exceed wage benchmarks in most Member States in 2024 (Section 2.2). In some of them, the cumulated gap over the past decade remains negative suggesting that there may be a possible room for further wage growth. However, additional indicators, including inflation expectations, unit labour cost (ULC) developments and unit profits can shed further light on the scope for wage increases, as argued below.

⁽⁹⁴⁾ Labour market deregulation during 1970-2015 has been found to have negatively affected labour shares (Ciminelli et al. 2018).

Graph 2.10: **Gap in wage growth relative to its benchmark (%)**



Note: Wage benchmarks are predicted by developments in inflation, productivity, the trade balance and the unemployment rate. The cumulative gaps for Romania and Bulgaria for 2014–2022 are 42 % and 58 %, respectively. These two results have been given as simple digits in the figure to allow a narrower range on the vertical axis and hence improve the readability of the graph.

Source: Own calculations based on AMECO [1100 OVGD; 1000 NETD; 3099427 XUNRQ; 1000 ZCPIH; 1000 ZUTN; 1000 UWCD; 1000 NWTJ] and Eurostat [ert_eff_ic_a; une_rt_a_h]).

Box 2.3: Predicting wage developments based on macroeconomic fundamentals – a revised methodology

The methodology of the European Commission to estimate wage benchmarks is carried out in two steps (European Commission: Directorate-General for Employment, Social Affairs and Inclusion, 2022). In the framework of error correction models, wage levels are first regressed on the levels of prices and productivity as well as unemployment to account for the long-term relationship between wage levels and their drivers. In a second step, wage growth is regressed on the short-term deviations of its main drivers and on a term that represents the deviation of the actual wage level from its predicted level in the first step. The predictions are based on a panel regression of EU Member States estimated on the basis of yearly data between 2000 and 2019. The approach allows to assess if wage growth is broadly in line with the equilibrium in the domestic labour market, which differs from an alternative benchmark that compares the actual wage growth with what would have guaranteed stable price competitiveness ⁽¹⁾.

The estimated wage benchmarks presented in this chapter are based on a recently updated methodology (European Commission: Directorate-General for Employment, Social Affairs and Inclusion, 2024e). While the general approach remains the same, the revisions aim at better reflecting the following aspects:

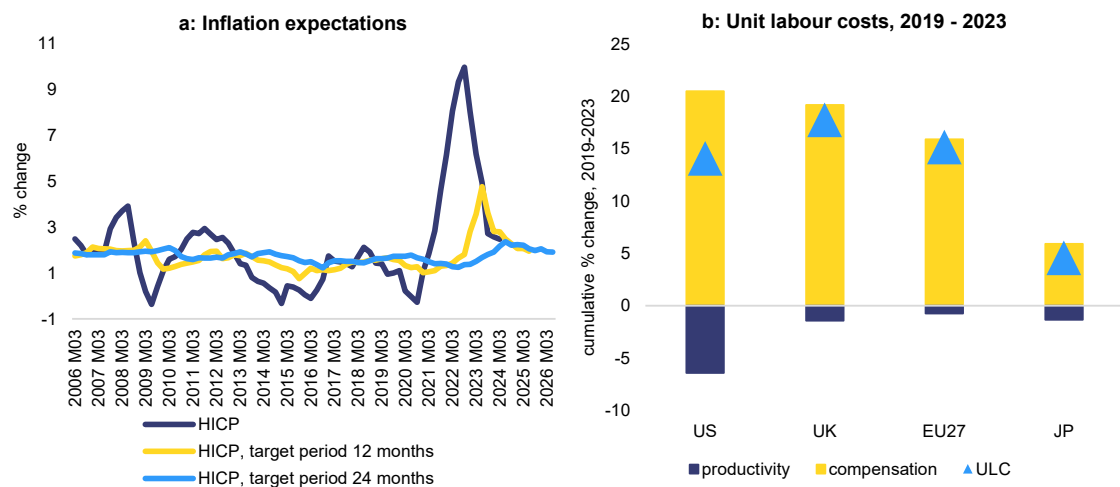
- (i) Differentiating regression estimates by country groups allows to better account for some structural features such as the Balassa-Samuelson effect for catching-up countries.** Wage and competitiveness developments have evolved quite differently across country groups, in particular western, southern and central and eastern European countries. For instance, some southern European witnessed moderate wage growth and competitiveness gains in countries, whereas some central and eastern European countries showed dynamic wage developments and increasing competitiveness concerns. Introducing region-specific dummy variables and interacting them with the main explanatory variables allows for differences in slope estimates for the explanatory variables across country groups.
- (ii) External balances may provide additional information on competitiveness, that is relevant to explaining wage developments.** In particular, the trade balance may provide additional information about cost- and non-cost competitiveness aspects, not covered by productivity, inflation and labour market tightness. For instance, exports can have a positive effect on industry wage premium (Du Caju et al., 2011).
- (iii) Adding lags of dependent variables can better account for the delayed response of wages to its main drivers.** The effect of macroeconomic variables, such as productivity, inflation and unemployment, are likely to affect wages with a delay. Therefore, the main explanatory variables are introduced as contemporaneous variables and with a lag of 1 year.
- (iv) Data are taken into account until 2023.** In previous rounds of updating the Commission's wage benchmarks, the sample was restricted to the period from 2000 to 2019. Extending the sample to 2023 allows to increase the number of observations and account for the patterns witnessed during the COVID-19 pandemic and the energy crisis in 2022.

Compared with the previous methodology, the model better explains actual wage developments and more accurately accounts for country specificities. The revised methodology reduces the that accumulated since 2012 for almost all Member States, including those with sizeable positive gaps (such as the Baltic countries, Bulgaria, Luxembourg and Romania) and negative gaps (including a number of southern European countries, Belgium and Ireland). Compared with the previous methodology, the negative gaps for 2022 also become smaller in many cases. This notably suggests that the revised model better captures the differentiated effects of high inflation on wages across countries. Overall, the explanatory power of the model, as measured by the R-squared statistics, improves despite the fluctuation introduced by extending the sample until 2023.

⁽¹⁾ For example consistent with stable export market shares or with a constant value of the Real Effective Exchange Rate computed on the basis of ULCs.

So far, wage dynamics have not exacerbated inflationary pressures. In theory, high wage growth could have some impact on inflation in the short term, as businesses may adjust prices to cover part of the recent pay rises. This risk of wages triggering inflation mainly stems from a possible de-anchoring of inflation expectations⁽⁹⁵⁾. However, inflation expectations over the next 2–4 years remain broadly stable, between 1.9 % and 2.2 % (Graph 2.11a), while wage growth is set to decrease (Section 2.2). This indicates a low risk of a wage-price spiral at this stage⁽⁹⁶⁾.

Graph 2.11: Inflation and ULCs



Note: The survey covers the euro area. HICP = harmonised index of consumer prices; M3 = third month; ULC = unit labour cost. Sources: European Central Bank Survey of Professional Forecasters and Eurostat [prc_hicp_midx] [namq_10_a10], Ameco 1000UWCD,1000UWCD,1000NETD,1100OVGD].

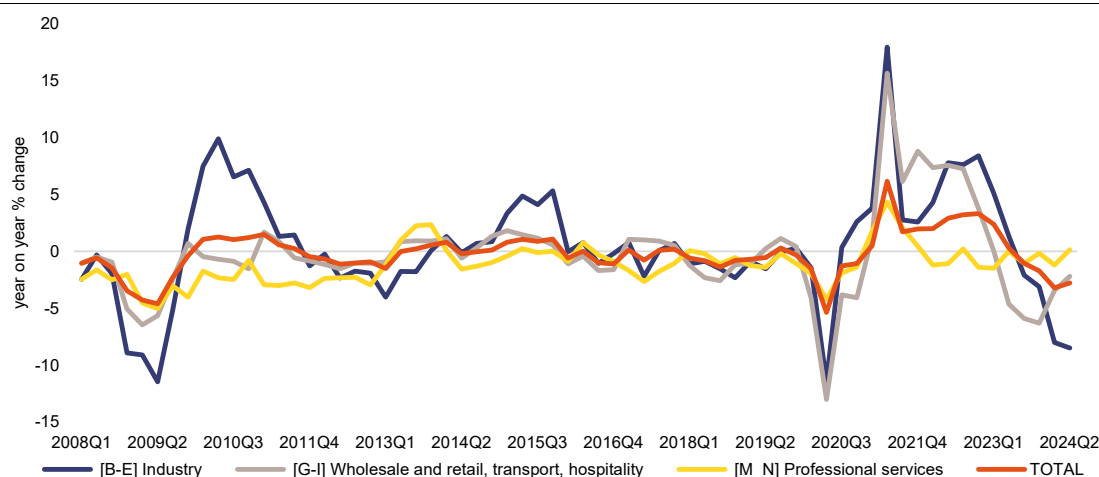
High unit profits can, at least temporarily, act as a buffer and absorb inflationary pressure stemming from wages⁽⁹⁷⁾. Corporate profits have increased substantially with the energy crisis, from 51.3 % in 2021 to 53.2 % of GDP in 2022. However, they started to decrease in 2023 and are forecast to continue decreasing in 2024, although remaining high. As real wages continue to rise, the decline in unit profits seems to have absorbed wage increases, thereby dampening inflationary effects. With unit profits still slightly above their 2019 level at 46.1 % in the second quarter of 2024, compared with 45.2 % in the fourth quarter of 2019, they could continue to play this mitigating role also in the near future, although this effect is likely to wane (Graph 2.12). At the country level, unit profits are comparatively high and increased recently in Greece, Ireland, Cyprus, Hungary, Malta, Poland, and Romania. Instead, they decreased, from a low level, in France and Luxembourg (Graph 2.13b).

⁽⁹⁵⁾ European Commission (2022).

⁽⁹⁶⁾ European Commission: Directorate-General for Economic and Financial Affairs (forthcoming).

⁽⁹⁷⁾ Unit profits approximate corporate profits as the difference between gross value added and compensation of employees divided by gross value added. This definition includes gross operating surplus and mixed income per unit of real GDP.

Graph 2.12: Unit profits, year-on-year growth rate, EU-27



Unit profits are computed based on quarterly national accounts, defined as the difference between gross value added and compensation of employees divided by gross value added.

Source: Eurostat [namq_10_a10].

In the medium and long term, higher productivity growth in the EU, also compared with other advanced economies, would be needed to widen the margin for wage increases. ULCs, the ratio of nominal compensation to productivity that is commonly used as a measure of cost competitiveness⁽⁹⁸⁾, have increased at a similar pace in the EU, the United Kingdom and the United States (about 15-17%) (Graph 2.11b). At the same time, both nominal wages and productivity increased less in the EU: productivity in the EU increased by only 0.7% between 2019 and 2023, against 6.4% in the United States and 1.4% in the United Kingdom, whereas nominal compensation growth stood at 15.9% in the EU between 2019 and 2023, compared with 20.5% in the United States and 19.2% in the United Kingdom. Therefore, strengthening productivity could yield further room to boost wages sustainably in the EU⁽⁹⁹⁾. Although labour productivity growth is forecast to accelerate in the EU, it is expected to remain structurally low at 0.9% in 2025⁽¹⁰⁰⁾.

Wage premium for green and digital skills point to a positive effect of productivity on wages but may also reflect skills shortages. Both the green and digital transitions lead to innovation and the use of new technologies, which tends to raise productivity⁽¹⁰¹⁾. This increase in output per worker can partly explain the wage premia for green jobs for advanced economies that is estimated to be between 4% and 7%⁽¹⁰²⁾. Similarly, jobs with a high digital intensity entail a 18% wage premium in the EU on average, and above 25% in the Baltic countries, Bulgaria and Cyprus⁽¹⁰³⁾. Several studies at the national level also point to a particularly high digital wage premiums in some sectors. However, these digital and green wage premiums may reflect not only productivity gains associated with the twin transition, but also skills

⁽⁹⁸⁾ It is the ratio of the total labour compensation per hour worked to output per hour worked.

⁽⁹⁹⁾ Arce et al. (2024), OECD (2018a).

⁽¹⁰⁰⁾ European Commission's *European Economic Forecast Autumn 2024*.

⁽¹⁰¹⁾ For Germany, Genz et al. (2019) found that firms' investment in digital technologies positively impacts workers' wages, both in knowledge-intensive manufacturing (e.g. car and machine manufacturers) and in non-knowledge-intensive services (e.g. wholesalers, restaurants). In the US, Felten et al. (2021) suggest that the introduction of AI in some sectors had a positive effect on wages and employment for high-income occupations.

⁽¹⁰²⁾ Vona et al. (2019) estimated a 4% average wage premium in the United States in 2006–2014 for “green” activities and occupations. The IMF (2022) finds that workers in green sectors earn about 7% more than those in brown sectors, even controlling for the skills level. The OECD (2023a) finds that the wage premium may reach 12% compared to polluting jobs.

⁽¹⁰³⁾ 2021 CEDEFOP European Skills and Jobs survey.

shortages (see also Box 2.1). In fact, firms may compete for the limited number of high-skilled workers through the wages they offer ⁽¹⁰⁴⁾.

In turn, higher wages may also incentivise upskilling and innovation, and thereby promote productivity. The existence of wage premiums to reward certain skills can motivate employees to upskill and thereby become more productive. Moreover, increases in minimum wages were found to boost the labour productivity of low wage earners ⁽¹⁰⁵⁾. Also at the level of firms, higher wages can push for more rapid technological change and innovation, and thus productivity, in order to preserve competitiveness. For instance, wage pressure can incentivise firms to improve their competitiveness by means of non-price aspects, such as the quality of their products or services, rather than by means of lower prices ⁽¹⁰⁶⁾.

2.4.2. Some evidence points to room for sustainable wage increases in some countries

Moderate wage developments in some countries helped them improve their competitiveness as compared with more competitive exporters in the EU. For instance, comparatively low wage and unit labour cost growth was registered in 2022 and 2023 in Greece, Spain, France, Italy, Cyprus and Malta (Graph 2.14). Some of these countries are also marked by weak net international investment positions but have gained export market shares in recent years (Graph 2.13a) ⁽¹⁰⁷⁾. Moderate wage increases also sustained competitiveness in the Nordic countries, which are marked by high income levels, although Finland and Sweden have experienced some losses in export market shares. In contrast, some exporters with very strong net international investment positions, notably Germany and the Netherlands, have experienced slightly higher ULC growth and some losses in export market shares. Looking over a longer period, wage moderation in the last decade in many Member States that faced competitiveness gaps (notably in southern Europe) resulted in some rebalancing in cost competitiveness, in particular within the euro area. This has supported their cost competitiveness and helped them improve their external position over time.

Combining favourable cost competitiveness dynamics with higher productivity growth could generate additional room for sustainable wage growth in most southern Member States. The favourable cost competitiveness developments in recent years are accompanied by high unit profits and moderate wage growth Spain, Greece, Italy, Cyprus and Malta (Graphs 2.13b; and Graph 2.14a). Portugal showed somewhat lower unit profits and more robust wage growth in 2022-2023, but its ULC growth has been moderate. This suggests that there is still some room for wage increases in these Member States, which could help address some remaining effects of the decline in incomes in 2022 and 2023 (Section 2.3). At the same time, boosting productivity growth is also key to providing room for higher sustainable wage growth in the medium to long term.

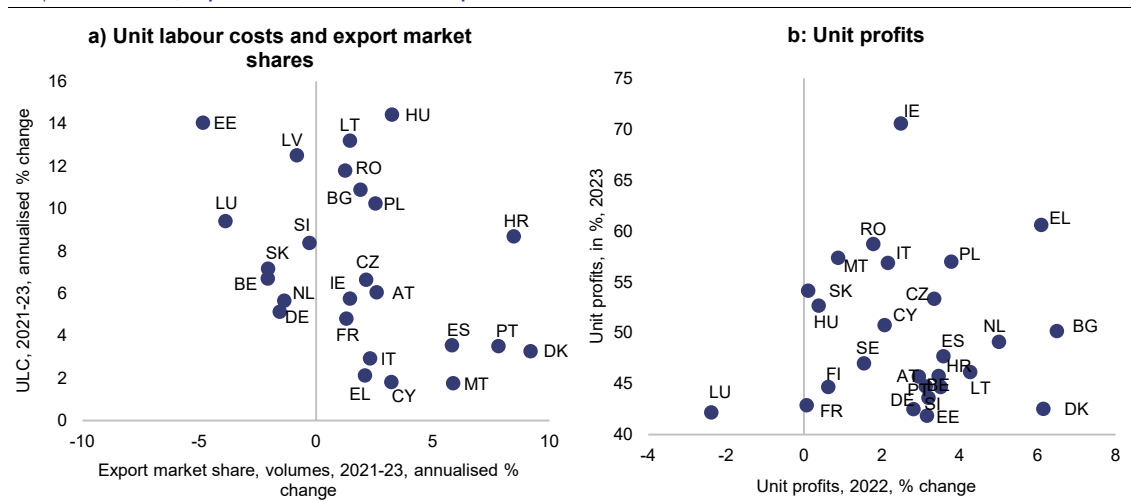
⁽¹⁰⁴⁾ Groiss et al. (2023).

⁽¹⁰⁵⁾ Coviello et al. (2022); Riley and Bondibene (2017).

⁽¹⁰⁶⁾ Zeira (1998); Acemoglu (2010).

⁽¹⁰⁷⁾ European Commission: Directorate-General for Economic and Financial Affairs (2023).

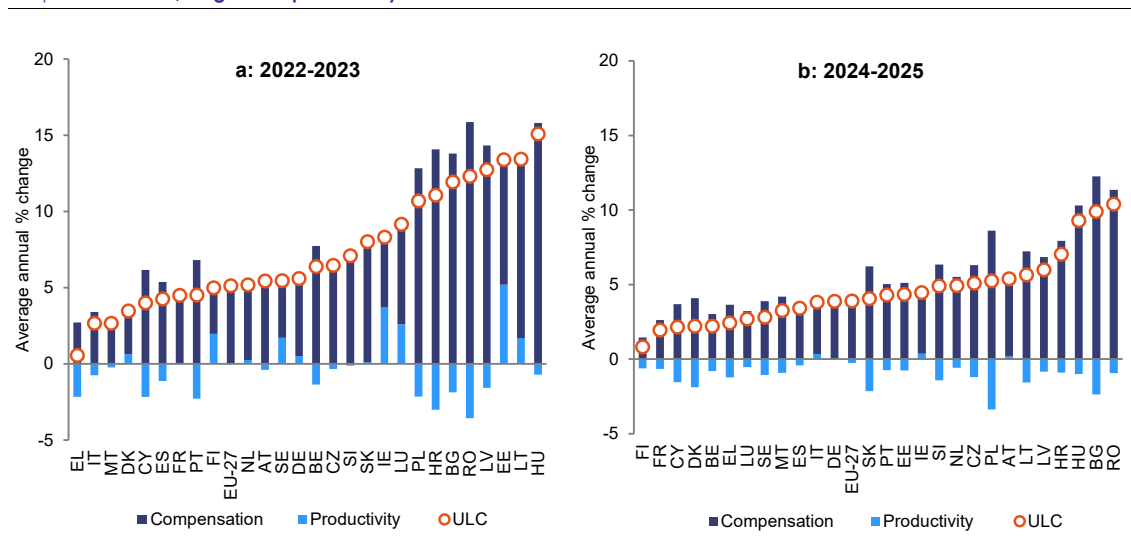
Graph 2.13: ULCs, export market shares and unit profits across countries



Unit labour costs are defined as the ratio of total labour compensation per employee to output per persons employed (labour productivity). The export market share is calculated by dividing the exports of the country by the total world exports. Unit profits are defined as the difference between gross value added and compensation of employees divided by gross value added.

Source: AMECO [1.0.0.0.UWCD,1.0.0.0.NWTD,1.0.0.0.NETD,1.0.0.0.OVGD,1.0.0.0.UVGE], Eurostat [tipsex13_custom_11625252].

Graph 2.14: ULCs, wages and productivity across countries



ULCs are defined as the ratio of total labour compensation per employee to output per persons employed (labour productivity). Labour productivity growth is shown with a negative sign in the graph, in line with the definition of ULCs.

Source: AMECO [1.0.0.0.UWCD,1.0.0.0.NWTD,1.0.0.0.NETD,1.0.0.0.OVGD].

By contrast, continued concerns about competitiveness in some Member States, including in central and eastern Europe, call for a cautious assessment of the room for wage increases. The Baltic countries, Bulgaria, Croatia, Luxembourg, Hungary, Poland, and Romania experienced strong wage and ULC growth with the energy crisis. Moreover, Luxembourg, Hungary, Romania and Slovakia showed signs of weakening external positions and/or a loss in export market shares (Graph 2.13a, and Graph 2.14). Although in the case of central and eastern European Member States this may partly reflect a welcome catching-up process in line with the Samuelson-Balassa theory, concerns have grown about

deteriorating cost competitiveness for Bulgaria, Czechia, Estonia, Croatia, Latvia, Lithuania, Hungary, Poland, Romania, and Slovakia ⁽¹⁰⁸⁾. Further efforts to increase productivity growth represent a sustainable way towards further real wage growth which could help to address remaining social challenges.

2.5. POLICY RESPONSE

Achieving sustainable and fair wage growth requires a determined policy response. A well-designed combination of structural measures is needed to facilitate the adjustment to the twin transition and boost productivity growth, and thereby increase the scope for wage increases ⁽¹⁰⁹⁾. Policies related to enhancing the bargaining power of workers, in particular in services, could allow corporate profits to act as a buffer for wage increases and avoid further declines in the labour share. Well-functioning collective bargaining and minimum wage policies, including the enforcement of minimum wage protection, continue to play a key role in protecting low-wage earners.

2.5.1. Structural measures to support productivity and skills

Boosting wage growth through productivity gains requires a robust policy framework. The weak productivity growth in the EU compared with other advanced economies constraints firms' ability to increase wages ⁽¹¹⁰⁾. In this context, the report by Mario Draghi on *The Future of European Competitiveness* underscores the significance of this issue, highlighting that EU productivity is hindered by substantial gaps in high-tech specialisation, innovation, and investment, particularly when compared to the United States (see also Chapter 1) ⁽¹¹¹⁾. A new industrial strategy to boost productivity and competitiveness should focus on accelerating technological and scientific innovation, diffusing digital technologies, improving the pipeline from innovation to commercialisation, and removing barriers that prevent innovative companies from growing and attracting finance ⁽¹¹²⁾. Moreover, a substantial increase in private and public investment, including in breakthrough innovation, is necessary to maximise productivity. Equally crucial are measures to facilitate the reallocation of workers towards more productive sectors and to up- and reskill workers, enabling them to adapt to structural changes in the economy. Moreover, well-functioning product and labour markets, both at the national level and in the single market, reduced regulatory burdens on EU firms, and sound fiscal and monetary policies are crucial for driving productivity growth ⁽¹¹³⁾. Boosting productivity growth, innovation and competitiveness should go hand in hand with achieving Europe's ambitious climate target, including the transition towards climate neutrality, as also highlighted in the Clean Industrial Deal announced by President von der Leyen in her political guidelines for the next European Commission ⁽¹¹⁴⁾.

The ongoing transformations make well-designed education and skills policies even more important to empower workers to access better job and income opportunities. These policies can help to boost

⁽¹⁰⁸⁾ European Commission: Directorate-General for Economic and Financial Affairs (2023). According to the Balassa-Samuelson model, in a catching-up economy an increase in wages in the tradable goods sector also pushes wages up in the non-tradable (services) sector. In turn, inflation is also higher.

⁽¹⁰⁹⁾ European Commission (2023).

⁽¹¹⁰⁾ In turn, in a situation of high labour and skills shortages, low wages may imply that firms in some sectors face increasing difficulties in finding workers with the required skills, which can further lower productivity.

⁽¹¹¹⁾ Draghi (2024a), Draghi (2024b).

⁽¹¹²⁾ European Commission: Directorate-General for Economic and Financial Affairs (2024a); European Commission: Directorate-General for Research and Innovation (2021); Letta (2024). Start-up and scale-up firms are key for innovation. Despite improvements, the scale-up gap between the EU and the United States remains large.

⁽¹¹³⁾ European Commission (2023); European Commission: Directorate-General for Economic and Financial Affairs (2023); European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2023a).

⁽¹¹⁴⁾ European Commission (2024b)

productivity and competitiveness and are also key to help workers fully reap the gains from new employment opportunities and adapt to the twin transition and changing economic structures. In particular, policies that can boost the scope for wage increases through productivity gains include upskilling and reskilling of the workforce, strengthening life-long learning along with on-the-job training and strengthening the link between education and training curricula and firms' needs (see also Chapter 1 and 3) ⁽¹¹⁵⁾. Labour reallocation and matching should also be supported, to make it easier for workers to move to companies that better fit their newly acquired skills. In this respect, effective public employment services, transferable social security and training rights and effective housing policies are key. Moreover, improving digital skills, including for the vulnerable, is essential to fully reap the benefits of the twin transition. Identifying future skill needs requires a coordinated strategy, accounting for both sectoral and regional aspects ⁽¹¹⁶⁾.

Ensuring fair and sustainable wage growth may require well-targeted complementary policies. For instance, boosting productivity growth may widen the productivity and wage gaps among sectors and firms. In particular, the productivity gains from the twin transition are expected to most extensively benefit the already most productive firms, in the most technologically advanced countries ⁽¹¹⁷⁾. Furthermore, the automation and phasing-out of polluting technologies can lead to persistent wage losses for displaced workers ⁽¹¹⁸⁾. As a result, the twin transitions may need to be accompanied by measures to ensure well-functioning social protection systems and equal opportunities, address job polarisation and support the re-skilling and reallocation of workers. Moreover, tax and benefit systems that aim at reducing income inequalities should be designed in a way to preserve incentives to work and to re- and upskill, while being conducive to entrepreneurship and investment ⁽¹¹⁹⁾.

2.5.2. Minimum wage policies and collective bargaining are key to supporting vulnerable workers

Progress in implementing the European Pillar of Social Rights remains key to ensuring that vulnerable workers are not left behind. This includes a set of policies, notably aiming to support quality employment (particularly with active labour market policies, and through education and training), as well as adequate minimum wages. In addition, it is important to foster a better enforcement of existing labour market rules, including minimum wage protection, and adapt these rules to evolving forms of work triggered by digitalisation. Moreover, well-functioning collective bargaining can help workers reap a fair share of benefits from productivity gains ⁽¹²⁰⁾.

Although inflation has abated, ensuring adequate minimum wage protection continues to play a key role in supporting low-wage earners. In the last 2 years, the increases in statutory minimum wages, where they exist, have mitigated the negative impact of high inflation on the purchasing power of low-wage earners. Minimum wage protection, whether provided for in national law or collective agreements, varies significantly across the EU, both in terms of purchasing power and relative to other wages within Member States. The EU Directive on adequate minimum wages, which should be transposed into national law by 15 November 2024, establishes a framework for the adequacy of statutory minimum wages and

⁽¹¹⁵⁾ European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2024).

⁽¹¹⁶⁾ European Commission (2024a); European Commission: Directorate-General for Economic and Financial Affairs (2024a); OECD (2023b); European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2023b).

⁽¹¹⁷⁾ One reason may be that these firms have better access to top technologies and financial markets and are more capable of adapting. By contrast, these gains tend to be weaker for less productive firms, making it more difficult for them to offer higher wages. Such differences are likely to increase wage differences across firms. See Gal et al. (2019) and Albrizio et al. (2017).

⁽¹¹⁸⁾ Digitalisation tends to displace middle-skilled, routine-intensive occupations, as well as some lower-skilled occupations (Heyman et al. (2021)). The green transition particularly displaces jobs in more polluting sectors, and those employees tend to face deeper and more persistent wage losses than others when moving to a new job (Barreto et al. (2023); Vona (2019)).

⁽¹¹⁹⁾ European Commission (2023).

⁽¹²⁰⁾ European Commission (2024), and OECD (2018b), Council of the European Union (2023)

enhances the effective access of workers to rights to minimum wage protection ⁽¹²¹⁾. It also requires all Member States to take measures to increase collective bargaining coverage and to facilitate the exercise of the right to collective bargaining on wage-setting.

In addition, further steps to improve compliance with minimum wage protection could be warranted in some Member States. Non-compliance with minimum wage protection appears to be a significant phenomenon in some Member States (Box 2.2). Enforcement should therefore be strengthened where needed, in line with the provisions of the directive on adequate minimum wages, inter alia by ensuring effective controls and field inspections, access to the right to redress and penalties. Moreover, effective policy measures to fight non-compliance should include cooperation with social partners, a combination of deterrence and preventive measures, as well as the improvement of data collection on non-compliance to evaluate the impact of enforcement policies.

Strengthening collective bargaining on wage setting can also be a major lever in raising real wages while contributing to a fairer sharing of productivity gains. Collective bargaining enhances the negotiation power of workers, including those categories of workers that are left behind, and facilitates the identification of tailor-made solutions to sustain wage growth. Collective bargaining can also help support productivity growth and the fair distribution of these gains by balancing the interests of workers and firms in wage-setting negotiations, including at the sector or cross-industry level. Moreover, social dialogue can support the design of fair working conditions, training opportunities, unemployment benefits and active labour market policies in a balanced way ⁽¹²²⁾. To this end, the directive on adequate minimum wages requires Member States to increase collective bargaining coverage and, for Member States with a coverage rate below 80 %, to provide a framework of enabling conditions for collective bargaining and to establish an action plan to progressively increase collective bargaining coverage.

2.6. CONCLUSIONS

Despite a rebound in real wages since the second half of 2023, some social effects of the high inflation period persist for low-income and lower middle-income households. Many workers with lower, but also those with middle incomes have been severely affected. Financial distress among workers rose significantly between 2021 and February 2023 and remains at high levels, while material and social deprivation of workers also rose in 2022 and 2023. At the same time, in-work poverty continued to decrease slightly in 2023 (reflecting 2022 incomes) and is forecast to remain stable in relation to 2023 incomes, as in some countries middle-income households have suffered relatively more income losses than lower-income ones. In most Member states, the purchasing power of low-wage earners was supported by strong increases in statutory minimum wages. The part of national income allocated to wages (labour share) is expected to make up for most of its recent losses by 2025, but is forecast to remain slightly lower than in 2019.

Some scope for further wage increases exists in the current context, depending on country-specific circumstances, but higher productivity growth is also needed to sustain stronger wage growth in the future. Recent wage dynamics appear to have been overall sustainable. Inflation expectations suggest that wage growth does not exacerbate inflationary pressures. Moreover, unit profits seem to currently act as a buffer that absorbs the inflationary pressure stemming from wages. At the same time, Member States face a different range of challenges when it comes to achieving fair wage levels, while preserving cost competitiveness. For instance, several countries, including in Southern Europe, experienced some gains in

⁽¹²¹⁾ It notably obliges Member States with statutory minimum wages to set up a sound governance framework for setting and updating them, with clear criteria and indicative reference values to help assess minimum wage adequacy.

⁽¹²²⁾ European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2023b); OECD (2024), Zwysen et al. (2024) and OECD (2018c); Cojocariu et al. (2024).

cost competitiveness over the past few years, and their wage growth has been below the benchmarks predicted by developments in the macroeconomic drivers of wages. They seem to have some remaining room for further wage increases to address persisting social challenges in the current context, including in terms of the material and social deprivation and financial distress of workers. By contrast, a number of other countries, particularly in central and eastern Europe, experienced competitiveness losses. To create room for higher wage growth in the EU in the medium-to-long term, addressing the long-standing weakness in productivity growth is key.

Policies need to ensure sustainable and fair increases in wages, in a macroeconomic context marked by high uncertainty and structural changes related to the twin transitions. For the future, it is important to foster productivity, which enables wages to grow sustainably over time. Policies promoting upskilling and reskilling help improve the employment and wage prospects of workers, especially the low-skilled. Additionally, ensuring adequate minimum wage protection can help improve the situation of vulnerable workers. Well-functioning collective bargaining on wage setting can also contribute to supporting wage growth, while ensuring that productivity gains are shared in a socially fair manner.

REFERENCES

- Acemoglu, D. (2010), ‘When does labor scarcity encourage innovation?’, *Journal of Political Economy*, Vol. 118, pp. 1037–1078, <https://doi.org/10.1086/658160>.
- Acemoglu, D. and Restrepo, P. (2017), *Robots and Jobs: Evidence from US labor markets*, Working Paper No 23285, National Bureau of Economic Research, Cambridge, MA, <https://doi.org/10.3386/w23285>.
- Acemoglu, D. and Restrepo, P. (2019), ‘Automation and new tasks: How technology displaces and reinstates labor’, *Journal of Economic Perspectives*, Vol. 33, No 2, pp. 3–30, <https://www.aeaweb.org/articles?id=10.1257/jep.33.2.3>.
- Albrizio, S., Kozluk, T. and Zipperer, V. (2017), ‘Environmental policies and productivity growth: Evidence across industries and firms’, *Journal of Environmental Economics and Management*, Vol. 81, pp. 209–226, <https://doi.org/10.1016/j.jeem.2016.06.002>.
- Arce, Ó. and Sondermann, D. (2024), ‘Low for long? Reasons for the recent decline in productivity’, European Central Bank blog, 6 May, <https://www.ecb.europa.eu/press/blog/date/2024/html/ecb.blog20240506~f9c0c49ff7.en.html>.
- Archanskaia, E., Meyermans, E. and Vandeplas, A. (2019), ‘The labour income share in the euro area’, in: European Commission: Directorate-General for Economic and Financial Affairs, *Quarterly Report on the Euro Area*, Vol. 17, No 4, pp. 41–57, https://economy-finance.ec.europa.eu/system/files/2019-03/ip100_chap_iii-the_labour_income_share_post_cab.pdf.
- Barreto, C., Carcillo, S., Damas de Matos, C. A., Hijzen, A., Palladino, M. et al. (2023), *Mobilising Linked Employer–Employee Data for Policy Analysis*, OECD Publishing, Paris.
- Blanchfower, D. G. and Oswald, A. J. (2008), ‘Wage curve’, in: Vernengo, M., Caldentey, E. P. and Rosser, B. J. (eds), *The New Palgrave Dictionary of Economics*, Palgrave Macmillan, London.
- Bodnár, K., Gonçalves, E., Górnicka, L. and Koester, G. (2022), ‘Wage developments and their determinants since the start of the pandemic’, *European Central Bank Economic Bulletin*, No 8/2022, https://www.ecb.europa.eu/press/economic-bulletin/articles/2023/html/ecb.ebart202208_02~2328747465.en.html.
- Borio, C., Disyatat, P., Juselius, M. and Rungcharoenkitkul, P. (2018), *Monetary policy in the grip of a pincer movement*, Working Paper 706, Bank for International Settlements, Basel, <https://www.bis.org/publ/work706.htm>.
- Borland, J. (2023), ‘Why is wage growth so low when the rate of unemployment is 3.5 %?’, Reserve Bank of Australia, <https://www.abs.gov.au/system/files/documents/cd28e9071d26f77bace3f2d2c919b06f/Why%20is%20wage%20growth%20so%20low%20when%20the%20rate%20of%20unemployment%20is%203.5%25.pdf>.
- Brunow, S., Lösch, S. and Okhrin, O. (2022), ‘Labor market tightness and individual wage growth: Evidence from Germany’, *Journal for Labour Market Research*, Vol. 56, No 1, <https://doi.org/10.1186/s12651-022-00322-7>.

Ciminelli, G., Duval, R. and Furceri, D. (2022), 'Employment protection deregulation and labor shares in advanced economies', *Review of Economics and Statistics*, Vol. 104, No 6, pp. 1147–1190, https://doi.org/10.1162/rest_a_00983.

Coad, A., Pellegrino, G. and Savona, M. (2015), 'Barriers to innovation and firm productivity', *Economics of Innovation and New Technology*, Vol. 25, No 3, pp. 321–334, <https://doi.org/10.1080/10438599.2015.1076193>.

Cojocariu, V. and Sedláková, M. (2024), 'Labour disputes across Europe in 2023: Ongoing struggle for higher wages as cost of living rises' Eurofound website, 29 July, <https://www.eurofound.europa.eu/en/resources/article/2024/labour-disputes-across-europe-2023-ongoing-struggle-higher-wages-cost-living>.

Council of the European Union (2023), Council Recommendation of 12 June 2023 on strengthening social dialogue in the European Union (OJ C, C/2023/1389, 6.12.2023), https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C_202301389.

Coviello, D., Deserranno, E. and Persico, N. (2022), 'Minimum wage and individual worker productivity: Evidence from a large US retailer', *Journal of Political Economy*, Vol. 130, No 9, pp. 2315–2360, <https://www.journals.uchicago.edu/doi/10.1086/720397>.

Deutsches Institut für Wirtschaftsforschung (2019), 'Mindestlohn: Nach wie vor erhalten ihn viele anspruchsberechtigte Beschäftigte nicht', *DIW Wochenbericht*, No 28, pp. 483–491.

Directive (EU) 2022/2041 of the European Parliament and of the Council of 19 October 2022 on adequate minimum wages in the European Union (OJ L 275, 25.10.2022, p. 33), <http://data.europa.eu/eli/dir/2022/2041/oj>.

Draghi, M. (2024a), *The Future of European Competitiveness – A competitiveness strategy for Europe*, European Commission: Directorate-General for Communication, Brussels, https://commission.europa.eu/document/download/97e481fd-2dc3-412d-be4c-f152a8232961_en.

Draghi, M. (2024b), *The Future of European Competitiveness – In-depth analysis and recommendations*, European Commission: Directorate-General for Communication, Brussels, https://commission.europa.eu/document/download/ec1409c1-d4b4-4882-8bdd-3519f86bbb92_en?filename=The%20future%20of%20European%20competitiveness_%20In-depth%20analysis%20and%20recommendations_0.pdf.

Du Caju, P., Rycx, F. and Tojerow, I. (2011), *Wage Structure Effects of International Trade – Evidence from a small open economy*, Working Paper No 1325, European Central Bank, Frankfurt, <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1325.pdf>.

Eurofound (2023), *Minimum Wages: Non-compliance and enforcement across EU Member States – Comparative report*, Publications Office of the European Union, Luxembourg, <https://data.europa.eu/doi/10.2806/280159>.

European Central Bank (2024), ECB Economic Bulletin, Issue 6/2024, Box 5 Recent developments in wages and the role of wage drift, https://www.ecb.europa.eu/press/economic-bulletin/focus/2024/html/ecb.ebbox202406_05~57bf8fd14c.en.html#:~:text=The%20contribution%20of%20wage%20drift%20to%20growth%20in%20compensation%20per

European Commission (2020), Impact assessment accompanying the document ‘Proposal for a Directive of the European Parliament and of the Council on adequate minimum wages in the European Union’ (SWD 2020/245 final), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=SWD:2020:245:FIN>.

European Commission (2021), Proposal for a Directive of the European Parliament and of the Council on improving working conditions in platform work (COM(2021) 762 final), <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52021PC0762>.

European Commission (2023), Commission communication – Annual Sustainable Growth Survey 2024 (COM(2023) 901 final), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52023DC0901>.

European Commission (2024a), Commission communication – Labour and skills shortages in the EU: An action plan (COM(2024) 131 final), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52024DC0131>.

European Commission (2024b), Directorate-General for Communication and Løyen, U., Europe’s choice : political guidelines for the next European Commission 2024–2029, Publications Office of the European Union, 2024, <https://data.europa.eu/doi/10.2775/260104>

European Commission: Directorate-General for Economic and Financial Affairs (2023), *Alert Mechanism Report 2024*, European Economy Institutional Paper No 261, Publications Office of the European Union, Luxembourg, https://economy-finance.ec.europa.eu/publications/alert-mechanism-report-2024_en.

European Commission: Directorate-General for Economic and Financial Affairs (2024a), ‘Euro area competitiveness – Addressing the knowledge gap’, Note to the Eurogroup, Brussels, 23.4.2024, <https://www.consilium.europa.eu/media/mrwnj5qj/comm-note-ea-competitiveness-addressing-the-knowledge-gap.pdf>.

European Commission: Directorate-General for Economic and Financial Affairs (2024b), *European Economic Forecast – Autumn 2024*, European Economy Institutional Paper No 286, Publications Office of the European Union, Luxembourg, https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts/autumn-2024-economic-forecast-gradual-rebound-adverse-environment_en.

European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2022), *Labour Market and Wage Developments in Europe – Annual review 2022*, Publications Office of the European Union, Luxembourg, <https://data.europa.eu/doi/10.2767/128906>.

European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2023a), *Labour Market and Wage Developments in Europe – Annual review 2023*, Publications Office of the European Union, Luxembourg, <https://data.europa.eu/doi/10.2767/1277>.

European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2023b), *Employment and Social Developments in Europe 2023 – Addressing labour shortages and skills gaps in the EU*, Publications Office of the European Union, Luxembourg, <https://data.europa.eu/doi/10.2767/089698>.

European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2024), *Employment and Social Developments in Europe 2024 – Upward social convergence in the EU and the role of social investment*, Publications Office of the European Union, Luxembourg, <https://op.europa.eu/webpub/empl/esde-2024/PDFs/KE-BD-24-002-EN-N.pdf>.

European Commission: Directorate-General for Employment, Social Affairs and Inclusion (forthcoming), ‘Estimating wage benchmarks – Revising the methodology’.

European Commission: Directorate-General for Research and Innovation (2021), *European Scale-up Gap: Too few good companies or too few good investors?*, Publications Office of the European Union, Luxembourg, <https://data.europa.eu/doi/10.2777/886042>.

Felten, E., Raj, M. and Seamans, R. (2021), ‘Occupational, industry, and geographic exposure to artificial intelligence: A novel dataset and its potential uses’, *Strategic Management Journal*, Vol. 42, No 12, pp. 2195–2217, <https://doi.org/10.1002/smj.3286>.

Frohm, E. (2021), *Labour Shortages and Wage Growth*, Working Paper No 2576, European Central Bank, Frankfurt, <https://www.ssrn.com/abstract=3895480>.

Gal, P., Nicoletti, G., von Rüden, C., Sorbe, S. and Renault, T. (2019), ‘Digitalization and productivity: In search of the holy grail – Firm-level empirical evidence from European countries’, *International Productivity Monitor*, Vol. 37, pp. 39–71, <https://ideas.repec.org/a/sls/ipmsls/v37y20192.html>.

Garnero, A. (2018), ‘The dog that barks doesn’t bite: Coverage and compliance of sectoral minimum wages in Italy’, *IZA Journal of Labor Policy*, Vol. 7, No 3, <https://izajolp.springeropen.com/articles/10.1186/s40173-018-0096-6>.

Garnero, A. and Lucifora, C. (2022), ‘Turning a “blind eye”? Compliance with minimum wage standards and employment’, *Economica*, Vol. 89, No 356, pp. 884–907, <https://doi.org/10.1111/ecca.12421>.

Genz, S., Janser, M. and Lehmer, F. (2019), ‘The impact of investments in new digital technologies on wages – Worker-level evidence from Germany’, *Jahrbücher für Nationalökonomie und Statistik*, Vol. 239, No 3, pp. 483–521, <https://doi.org/10.1515/jbnst-2017-0161>.

Groiss, M. and Sondermann, D. (2023), *Help Wanted: The drivers and implications of labour shortages*, Working Paper No. 2023/2863, European Central Bank, Frankfurt, <https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp2863~c22e538d33.en.pdf>.

Heyman, F., Norbäck, P.-J. and Persson, L. (2021), ‘Digitalisation, productivity and jobs: A European perspective’, in: Bakardjieva Engelbrekt, A., Leijon, K., Michalski, A. and Oxelheim, L. (eds), *The European Union and the Technology Shift*, Springer Nature, Cham, pp. 135–159.

Horbach, J. and Rammer, C. (2020), *Labor Shortage and Innovation*, Discussion Paper No 20-009, ZEW – Leibniz Centre for European Economic Research, Mannheim, <http://dx.doi.org/10.2139/ssrn.3545776>.

International Monetary Fund (2022), ‘A greener labor market: Employment, policies, and economic transformation’, in: *World Economic Outlook – War sets back the global recovery*, Washington, DC.

Jäger, S., Roth, C., Roussille, N. and Schoefer, B. (2023), *Worker Beliefs about Outside Options*, Working Paper No. 29623, National Bureau of Economic Research, Cambridge, MA, https://www.nber.org/system/files/working_papers/w29623/w29623.pdf.

Jonsson, M. and Theobald, E. (2019), ‘A changed labour market – Effects on prices and wages, the Phillips curve and the Beveridge curve’, *Sveriges Riksbank Economic Review*, No 1, pp. 28–49, https://www.riksbank.se/globalassets/media/rappporter/pov/artiklar/engelska/2019/190613/er-2019_1-a-changed-labour-market--effects-on-prices-and-wages-the-phillips-curve-and-the-beveridge-curve.pdf.

Krueger, A. B. (2018), ‘Reflections on dwindling worker bargaining power and monetary policy’, luncheon address at the Jackson Hole Economic Symposium, 24 August.

Leduc, S. and Liu Z. (2019), *Robots or Workers? A macro analysis of automation and labor markets*, Working Paper 2019-17, Federal Reserve Bank of San Francisco, https://www.frbsf.org/wp-content/uploads/sites/4/Paper_3_Leduc_Liu.pdf.

Letta, E. (2024), *Much More Than a Market – Speed, security, solidarity – Empowering the single market to deliver a sustainable future and prosperity for all EU citizens*, European Commission, <https://www.consilium.europa.eu/media/ny3j24sm/much-more-than-a-market-report-by-enrico-letta.pdf>.

OECD (2018a), ‘Decoupling of wages from productivity: What implications for public policies?’, in: *OECD Economic Outlook, Volume 2018 Issue 2*, OECD Publishing, Paris, pp. 51–65, https://doi.org/10.1787/eco_outlook-v2018-2-3-en.

OECD (2018b), *Good jobs for all in a changing world of work – The OECD jobs strategy*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264308817-en>.

OECD (2018c), *OECD Employment Outlook 2018*, OECD Publishing, Paris, https://doi.org/10.1787/empl_outlook-2018-en.

OECD (2023a), *Job Creation and Local Economic Development 2023 – Bridging the great green divide*, OECD Publishing, Paris, <https://doi.org/10.1787/21db61c1-en>.

OECD (2023b), *OECD Skills Outlook 2023 – Skills for a resilient green and digital transition*, OECD Publishing, Paris, <https://doi.org/10.1787/27452f29-en>.

OECD (2023c), *OECD Employment Outlook 2023 – Artificial intelligence and the labour market*, OECD Publishing, Paris, <https://doi.org/10.1787/08785bba-en>.

OECD (2024), *OECD Employment Outlook 2024 – The net-zero transition and the labour market*, OECD Publishing, Paris, <https://doi.org/10.1787/ac8b3538-en>.

Pissarides, C. and Arad, M. (2023), ‘The more I study AI, the more optimistic I get about the labour market’, LSE Business Review blog, 18 September, <https://blogs.lse.ac.uk/businessreview/2023/09/18/christopher-pissarides-the-more-i-study-ai-the-more-optimistic-i-get-about-the-labour-market/>.

Riley, R. and Bondibene, C. R. (2017), ‘Raising the standard: Minimum wages and firm productivity’, *Labour Economics*, Vol. 44, pp. 27–50, <https://www.sciencedirect.com/science/article/abs/pii/S0954349X23000826#bib0073>.

Schneider, D. (2011), *The Labor Share: A review of theory and evidence*, SFB 649 Discussion Paper No 2011-069, Humboldt University of Berlin, Collaborative Research Center 649 – Economic Risk, Berlin.

Sgaravatti, G., Tagliapietra, S., Trasi, C. and Zachmann, G. (2023), ‘National fiscal policy responses to the energy crisis’, Bruegel datasets, 6 June (first published 4 November 2021), accessed 7 November 2024, <https://www.bruegel.org/dataset/national-policies-shield-consumers-rising-energy-prices>.

Vona, F. (2019), ‘Job losses and political acceptability of climate policies: Why the “job-killing” argument is so persistent and how to overturn it’, *Climate Policy*, Vol. 19, No 4, pp. 524–532, <https://doi.org/10.1080/14693062.2018.1532871>.

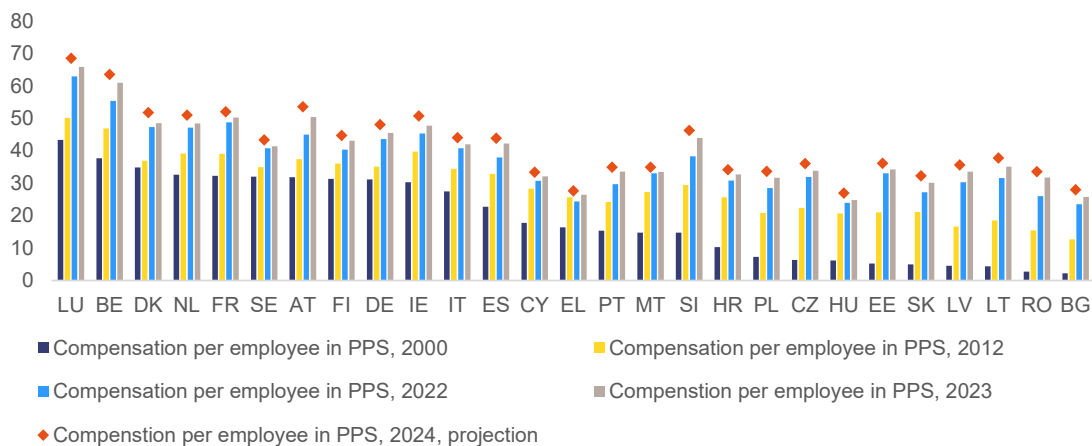
Vona, F., Marin, G. and Consoli, D. (2019), 'Measures, drivers and effects of green employment: Evidence from US local labor markets, 2006–2014', *Journal of Economic Geography*, Vol. 19, No 5, pp. 1021–1048, <https://doi.org/10.1093/jeg/lby038>.

Zeira, J. (1998), 'Workers, machines and economic growth', *Quarterly Journal of Economics*, Vol. 113, pp. 1091–1113, <https://www.jstor.org/stable/2586975>.

Zwysen, W. and Drahokoupil, J. (2024), 'Collective bargaining and power: Wage premium of collective agreements in Europe 2002–2018', *British Journal of Industrial Relations*, Vol. 62, No 2, pp. 335–357, <https://doi.org/10.1111/bjir.12777>.

ANNEX 2.1: SELECTED GRAPHS

Graph 2.15: Compensation per employee in purchasing power standards (PPS)



(1) Data for total economy in 1.000 EUR.
Source: Ameco [5 0 0 0 HWWDW, 5 0 0 0 ZCPIH]

Table 2.1: The three income deciles with lowest increase across 2022 and 2023 per Member State

		2022-2023																											
		AT	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IE	IT	LT	LU	LV	MT	NL	PL	PT	RO	SE	SI	SK	
D1																													
D2																													
D3																													
D4																													
D5																													
D6																													
D7																													
D8																													
D9																													
D10																													

(1) Data for Luxembourg and Malta not available for 2023. Growth rates between country specific capping incomes for each decile were calculated for 2021-2022 and 2022-2023. The three deciles with the lowest growth rates were highlighted in orange.

Source: EU-SILC and ECHP Survey, Eurostat [ilc_di01]

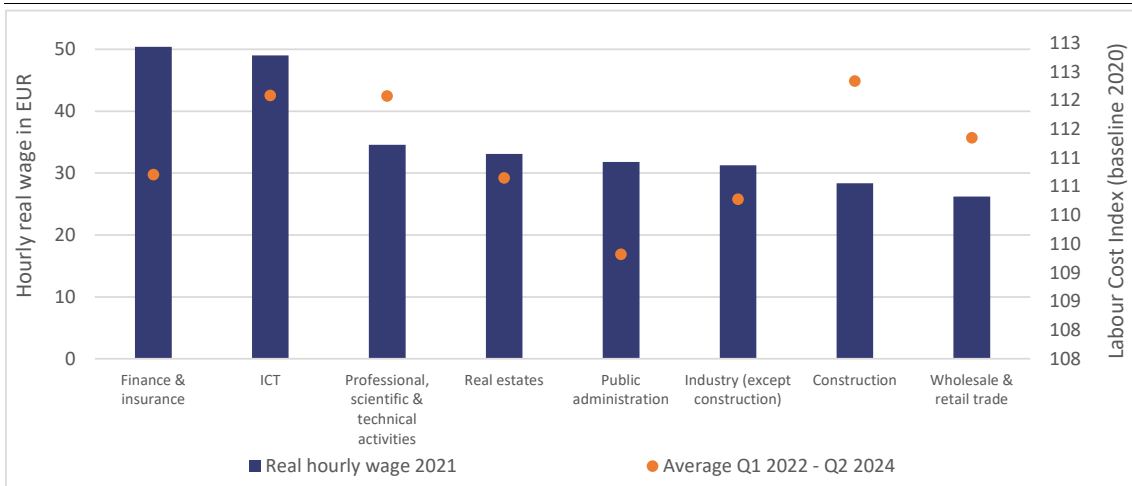
Table 2.2: The income deciles with lowest increase per Member State for 2022 and 2023

		AT	BE	BG	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IE	IT	LT	LU	LV	MT	NL	PL	PT	RO	SE	SI	SK		
2022	D1																													
	D2																													
	D3																													
	D4																													
	D5																													
	D6																													
	D7																													
	D8																													
	D9																													
	D10																													
2023	D1																													
	D2																													
	D3																													
	D4																													
	D5																													
	D6																													
	D7																													
	D8																													
	D9																													
	D10																													

(1) Growth rates between country specific capping incomes for each decile were calculated for 2021-2022 and 2022-2023. The three deciles with the lowest growth rates were highlighted in red.

Source: EU-SILC and ECHP Survey, Eurostat [ilc_di01]

Graph 2.16: Wage levels (2021) and hourly growth rates (based on labour cost index)



(1) 2021 refers to the hourly real wage in EUR (left scale), Average Q1 2022 - Q4 2024 refers to the Labour Cost Index (right scale). Sectors are ranked according to average full-time adjusted salaries per employee in 2019 calculated by multiplying wages per employee with the ratio of average number of usual weekly hours worked full-time versus total employment weighted by employment in sectors to correspond to sector groups of compensation per hour worked. Average full-time adjusted salary per employee was then deflated using the harmonized index of consumer prices (hicp). Hourly growth rates calculated based on increases in labour cost index.

Source: Eurostat [nama_10_a10, nama_10_a10_e, lfsa_ewhun2, prc_hicp_midx].

3. PROMOTING THE LABOUR FORCE PARTICIPATION AND EMPLOYMENT OF OLDER PEOPLE IN THE EU

3.1. INTRODUCTION

The EU is undergoing a major demographic transformation. People are living longer, and their health is improving. Life expectancy in the EU (currently at 78.9 years for men and 84.2 years for women) has been increasing, together with improvements in health and work capacity⁽¹²³⁾. At the same time, declining fertility rates contribute to an ageing population and a shrinking working-age population, which hampers the EU's growth potential and jeopardises the sustainability of its social welfare model. However, over the past decade, the increasing employment of older workers (aged 55 to 64) has outweighed the impact of ageing on the labour supply.

In the coming decades, the size of the working-age population will continue to shrink despite expected increases in the participation and employment of older people⁽¹²⁴⁾. The participation rate of people aged 20 to 64 is expected to rise from 79.4 % in 2022 to 82.7 % in 2070, mainly driven by the impact of pension reforms and the gradual growth of the labour force participation of older women (from 59.1 % in 2022 to 72.6 % in 2070) due to the stronger labour market attachment of current younger female cohorts⁽¹²⁵⁾. This augmentation is expected to generally translate into higher employment rates of older workers (from 62.3 % in 2022 to 72.3 % in 2070). However, in most Member States, the rise in the activity of older individuals will not be sufficient to counteract the impact of an ageing population on the labour supply. The EU labour force is expected to decline by 0.3 % each year over the projected period. The bulk of this change is expected to take place by 2045⁽¹²⁶⁾.

However, the increased labour force participation and employment of older individuals can mitigate the impact of demographic change on labour supply and contribute to tackling historically high labour and skills shortages across the EU⁽¹²⁷⁾. Higher labour force participation can be a way to counteract the impact of ageing and contribute to fiscal sustainability and to the adequacy of pensions, together with technological advances (including in artificial intelligence), improvements in labour productivity, more flexibility in working hours, and the legal immigration of skilled workers. While the activity rates of groups currently under-represented in the labour market, such as women, people with lower levels of educational attainment, young people and older people, have been steadily improving, gaps remain, indicating room for potential improvement (see Chapter 1). Policies across Member States support the employment of these groups to achieve the EU headline target of a 78 % employment rate in the EU by 2030 and the associated national targets.

The untapped potential of older people to contribute to labour supply in the EU is substantial. The three groups with the largest untapped labour market potential in the EU are women, low-skilled people and people between 55 and 64 years old. If the Member States with lower-than-average activity rates for these population groups were to raise their activity rates to the EU average for each subgroup, an

⁽¹²³⁾ Additional information can be found in European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2024) and European Commission (2023a).

⁽¹²⁴⁾ Throughout the chapter, the terms 'older people', 'older individuals', and 'older adults' denote individuals who are at least 55 years old, and most typically refer to the group aged 55 to 64, unless stated otherwise.

⁽¹²⁵⁾ European Commission: Directorate-General for Economic and Financial Affairs (2024).

⁽¹²⁶⁾ The calculation presented here follows the logic of the old-age dependency ratio, which compares the number of people aged 65 and over with the number of people aged 20 to 64. In 2045, it is estimated that there will be 16 employed people for every 10 inactive people aged 65 or over. For more information, please see Eurostat (tps00198).

⁽¹²⁷⁾ European Commission: Directorate-General for Economic and Financial Affairs (2024).

additional 3.6 million women, 2.9 million secondary-educated people and 2.2 million people aged between 55 and 64 years old would enter the EU labour market ⁽¹²⁸⁾.

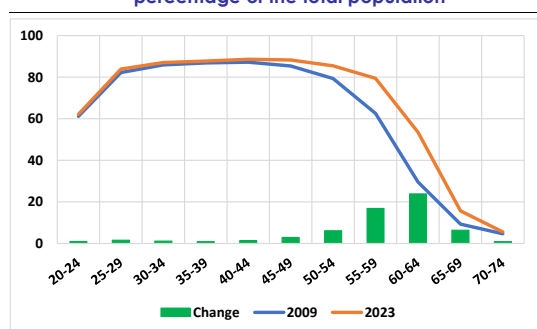
This chapter explores ways to improve the labour market outcomes of older people in the EU. Section 3.2 describes the main patterns of their labour force participation and employment. It also discusses their economic and policy drivers and outlines remaining gaps and challenges. Section 3.3 discusses the training, education, and digital skills of people aged between 55 and 64 years old, as well as skills mismatches and the dynamism of their workplaces. Section 3.4 presents a projection of the labour market potential of older individuals. Section 3.5 reviews how pension and labour market policies can support the employment of older workers. It also describes recent policy examples and trends across Member States and draws conclusions for future policies in the EU.

3.2. THE LABOUR FORCE PARTICIPATION AND EMPLOYMENT OF OLDER PEOPLE ACROSS THE EU

3.2.1. Labour market participation of older people has improved

The labour force participation and employment of people between the ages of 55 and 64 has increased considerably, providing a major contribution to the EU labour supply. In 2023, 41 million older people participated in the labour market in the EU and 39 million were employed ⁽¹²⁹⁾. Their activity and employment rates – 67 % and 63.9 % in 2023, respectively – were both almost 20 percentage points (hereafter “pps”) higher than in 2009. These increases were more than four times higher than those for the prime-age population (25 to 54 years old). Moreover, in the last decade they have compensated for the negative impact of population ageing on labour supply. The increased participation of people aged 55 to 64 in the labour market has been largely independent of education levels and mainly driven by the retention of permanent, full-time positions ⁽¹³⁰⁾. Since 2009 the activity and employment rates of older women have improved by, respectively, 5.7 and 4.9 pps more than those of men.

Graph 3.1: Activity rates by age in the EU-27 – percentage of the total population



Source: Eurostat, Labour Force Survey.

Several factors have contributed to the rise of the activity and employment rates of older people. These include improved life expectancy, health, educational attainment, policy changes to retirement systems, unemployment and disability insurance schemes, as well as favourable labour demand developments and a rising share of jobs in the service sector that offer less physically demanding employment ⁽¹³¹⁾. These factors, as well as the increasing availability of care services, which reduced the informal care responsibilities of older women, have contributed to increasing participation of older individuals and in particular of older women.

⁽¹²⁸⁾ These numbers are not cumulative, as the three groups overlap. In the cases of women and low-skilled people, this potential is driven by their relatively large share in the population, while for older workers it is due to the relatively large gap in their activity rates compared with the EU average.

⁽¹²⁹⁾ This represents 19.7 % of the active population (which amounts to 207.8 million) and 19.9 % of all employed adults (of whom there are 195.7 million).

⁽¹³⁰⁾ Bodnár and Nerlich (2020).

⁽¹³¹⁾ Geppert et al. (2019), Bodnár and Nerlich (2020), Martin (2018) and Börsch-Supan and Coile (2021).

Box 3.1: Factors affecting the employment of older people

The employment rates of older individuals have risen mainly due to higher retention rates, while hiring rates have remained low. In 2022, 54 % of EU workers aged 60-64 years old were in the same job as five years earlier, compared with 36.2 % in 2012 ⁽¹⁾. The rise in retention rates can be driven both by the incentives for older workers to stay longer in the labour market, and by companies' actions to retain their older workers (Konle-Seidl, 2018). In contrast, the EU hiring rate ⁽²⁾ of older persons increased only slightly from 5.8 % in 2012 to 6.6 % in 2022, remaining low compared with younger age groups.

Low hiring rates can be due to demand-side constraints, including the perception of the lower productivity of older workers. Research findings suggest that the link between age and productivity follows an inverted U-shape, with a peak at the age of 55 or below (Picchio, 2021). However, various factors affect this relationship (Allen, 2019) ⁽³⁾. Recent evidence suggests that companies are still reluctant to hire older workers due to the large seniority wage premium, especially in countries with strict employment protection legislation. This is the case in Greece, Spain, and Italy, despite reforms that eased employment protection legislation for permanent workers (Martin, 2018). If wages rise with job tenure due to seniority pay, a gap can emerge between the unit labour costs of older workers who have been with the same employer for a long time and their productivity (Vandenberghe, 2022). This discrepancy can undermine the hiring of older job candidates if they are expected to receive comparable wages.

Low hiring rates can also be driven by age discrimination and the need for specific workplace arrangements for older workers. Ageism (Ayalon & Tesch-Römer, 2017) ⁽⁴⁾ and negative stereotypes persist, with 52 % of EU citizens considering age the most important factor that can disadvantage a job candidate during the recruitment process (European Commission, 2023b) ⁽⁵⁾. Older adults can be perceived by employers as less adaptable, with poorer physical capabilities, limited technological competence and digital skills, as well as less trainable and less flexible. Furthermore, their experience may not be sufficiently appreciated. Evidence suggests that these perceptions can lead to age discrimination by employers (Carlsson and Eriksson, 2019) ⁽⁶⁾. Therefore, older people are more likely to end up in lower-skilled and lower-paid jobs after having been unemployed for a long period (Harris et al., 2017). Furthermore, they may need more workplace flexibility and accommodation measures, which employers may find too costly.

The employment of older workers is also affected by supply-side factors. The labour supply of older workers can decline with age due to health problems, family-related reasons (such as informal caretaking, or coordinated retirement decisions of spouses), their increased preference for leisure, or a lack of financial incentives to remain active in the labour market.

⁽¹⁾ OECD Older workers scoreboard.

⁽²⁾ The share of employees aged 55-64 with job tenure of less than one year as a percentage of total employees.

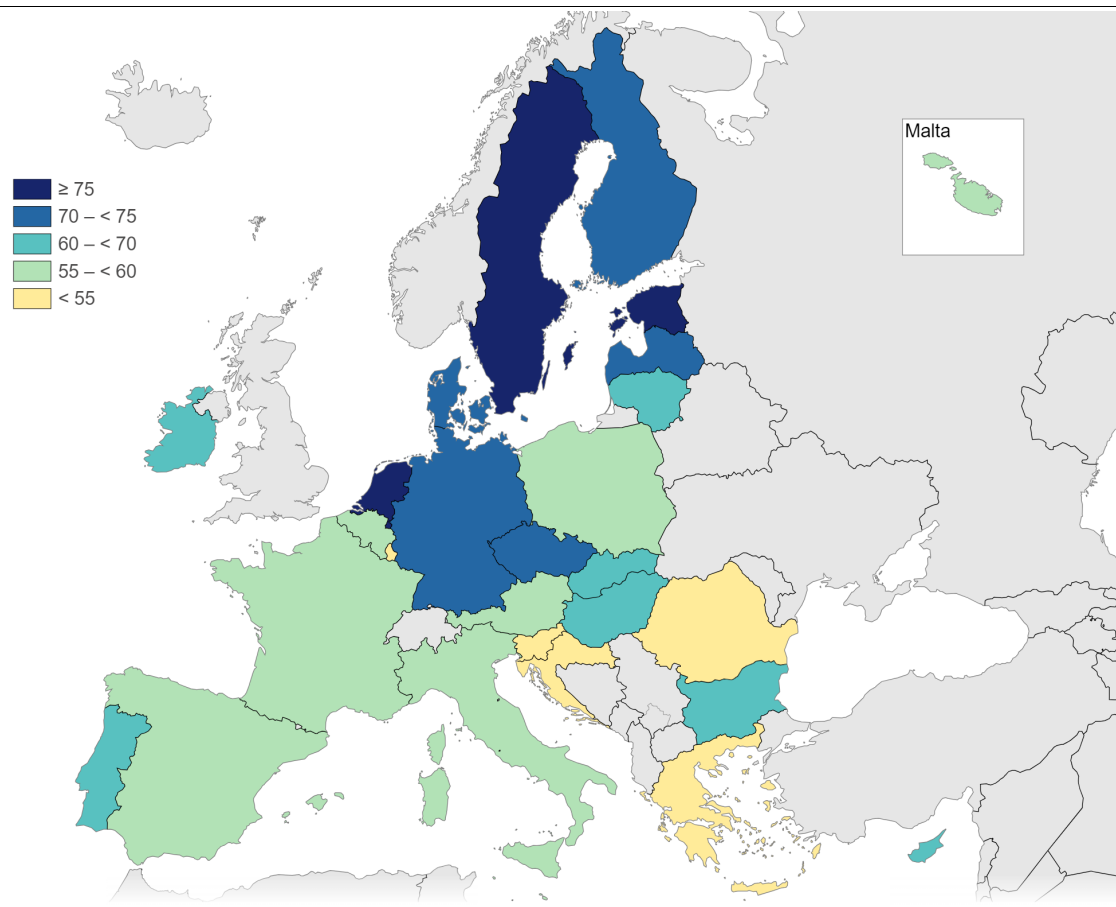
⁽³⁾ Studies with different methods find different peaks and estimate steeper or slower declines in productivity with age.

⁽⁴⁾ Ageism has been defined as 'stereotypes, prejudice, or discrimination against (but also in favour of) people because of their chronological age'.

⁽⁵⁾ This figure represents a five pps increase compared with the previous Eurobarometer survey in 2019.

⁽⁶⁾ The authors demonstrate the presence of age discrimination in hiring by Swedish employers in a field experiment. According to the experiment of Van Borm et al (2021), employers engage in statistical discrimination (e.g. which relies on perceptions that may hold on average but may put individual candidates at a disadvantage), as they see old age as a signal of lower technological skills, flexibility and trainability. However, recruiters from companies employing a larger share of older workers show lower levels of age discrimination. More information on older workers can help to reduce age discrimination in hiring.

Graph 3.2: Employment rates of older workers (55-64 years old) across the EU (2023)



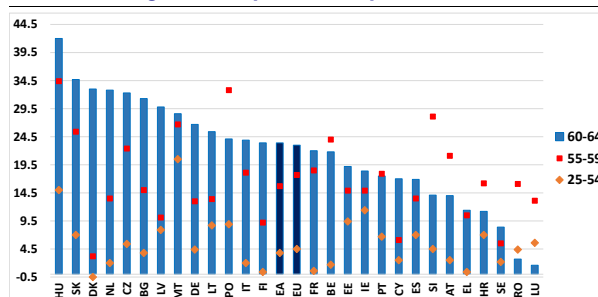
Note: Darker colours correspond to higher employment rates.

Source: Eurostat, Labour Force Survey. Map courtesy of EuroGeographics, the Food and Agriculture Organization and the Turkish Statistical Institute.

The employment and activity rates of older people differ substantially among Member States, suggesting an important role for policies and institutions. In Czechia, Denmark, Germany, Estonia, Latvia, the Netherlands, Finland and Sweden the employment rates of older workers are above 70 %, while in Greece, Croatia, Luxembourg, Romania and Slovenia they are below 55 % (Graph 3.2). The largest increases since 2009 (around 30 pps) have been observed in Hungary, Poland and Slovenia for the age bracket 55 to 59 and in Denmark, Hungary and Slovakia for the age bracket 60 to 64 (Graph 3.3). The levels and evolution of activity rates across Member States have followed the corresponding employment rates.

This cross-country diversity is a result of the interplay of several economic and institutional factors. Research shows that the labour market outcomes of older individuals have been strongly influenced by increases in statutory retirement ages across Member States, as well as by the restriction of eligibility criteria for early retirement and unemployment and disability insurance schemes⁽¹³²⁾. However, in Member States with the largest employment rates for people aged 55 to 64, other factors have also played an important role, such as health improvements in Sweden⁽¹³³⁾, preferences to work longer and a shift in social norms in the Netherlands⁽¹³⁴⁾ and increasing reasonable accommodations at work in Denmark⁽¹³⁵⁾. Additional factors such as improved life expectancy⁽¹³⁶⁾, along with shifts in companies' behaviour due to changes in labour market conditions, have also played a role in explaining cross-country differences in the employment of older adults. For instance, in some countries with the highest employment rates for older people, such as Czechia and the Netherlands, labour and skills shortages are at historically high levels, emphasising the potential importance of changes in the behaviour of companies, which may prefer to keep their older workers more than they did before, due to labour shortages. Furthermore, evidence shows that differences in the increase in the educational attainment of older workers across Member States can also partly explain cross-country differences in employment rates.

Graph 3.3: Change in employment rates of older and prime-age workers (2009 to 2023)



Note: Differences are expressed in percentage points.
Source: Eurostat, Labour Force Survey.

The unemployment rate of older people is lower than that of prime-age individuals and less responsive to the business cycle, but older people are more likely to become long-term unemployed for several reasons. The rise in labour force participation of people aged 55 to 64 since 2009 has increased their employment rate without significantly affecting their unemployment rate. In 2023, the unemployment rate of older people in the EU was 4.6 %, 0.9 pps below that of prime-age individuals. Higher severance costs may discourage employers from dismissing older workers. Moreover, in some countries and sectors, older employees enjoy additional protection from dismissal compared with prime-age workers as they approach retirement age. After losing their job, older people are more likely to transition into inactivity rather than unemployment, or into invalidity, retirement or social welfare schemes. If they remain unemployed, they are more likely to have longer unemployment spells and face difficulties in returning to employment, especially if they have completed less education. In 2023, 50.9 % of unemployed older individuals were long-term unemployed in the EU, compared with 37.4 % of prime-age individuals. The situation has been particularly severe in Member States such as Slovakia (74 %), Greece (65.5 %), Italy (61.8 %) and Portugal (60 %). On the companies' side, age discrimination, the need for specific workplace arrangements for older workers as well as the perception of older adults' lower productivity are among the factors that hinder the return to work of older adults (see Box 3.1). Moreover, the multifaceted relation between wages and the employment and activation of older adults has also to be taken into account (see Box 3.2).

Despite recent improvements, older people are still under-represented in the EU labour market. Their activity and employment rates are 20 and 18 pps lower, respectively, than those of prime-age adults (67 % and 63.9 %, compared with 87 % and 82.2 % for prime-age adults in the EU in 2023). Member States such as Croatia Luxembourg and Romania were characterised by the highest inactivity rates in

⁽¹³²⁾ Börsch-Supan and Coile (2021).
⁽¹³³⁾ Palme and Laun (2021).
⁽¹³⁴⁾ De Vos et al. (2018).
⁽¹³⁵⁾ Bingley et al. (2021).
⁽¹³⁶⁾ Weber and Loichinger (2022).

Box 3.2: Wages and their relation with the activation of older adults

Older workers tend to earn, on average, higher wages than young and prime-age workers, with differences across Member States. Wages tend to rise together with seniority (OECD, 2019). In the EU, this occurs because seniority wage premia are a quasi-institutionalized feature of the wage-setting process (Vandenberghe, 2022). The data available at EU level provide additional evidence to support this finding: since 2010, the in-work at risk of poverty rate of older workers has been consistently lower than that of prime age workers (i.e., 25-54 years old). This suggests that older workers tend to have higher wages than prime age workers in the lower end of the wage distribution. However, there are significant differences in the in-work at-risk-of-poverty rates of older workers across the EU, with high rates in Greece (10.8 %), Latvia (12.7 %), and Romania (16.6 %), and low rates in Czechia (3.1 %), Denmark (2.8 %), and Finland (2.6 %) in 2023.

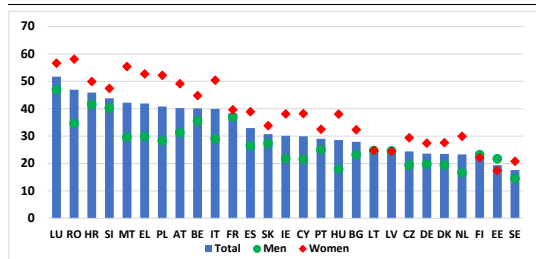
However, the gender pay gap widens with age. On average, the gender pay gap for the age group 55 to 64 years old is higher than that of younger cohorts across EU Member States. In 2022, this gap was the highest in Germany (26.4 %), the Netherlands (19.2 %) and France (19 %). This increase in the gender pay gap with age can be attributed to several factors, including career interruptions that women may experience during their working lives. Moreover, women tend to benefit less from career progression and the related wage increases, since they are underrepresented in management roles and on boards (OECD, 2023b).

Some studies argue that higher wages due to seniority reduce firms' incentives to retain or hire older adults. Evidence shows that seniority-based pay schemes might prevent individuals from continuing to work at an older age (Frimmel et al., 2015), due to the cost for companies to retain these workers. Across OECD countries, there is a negative relationship between seniority wage premia and the job retention rate of older workers (OECD, 2019). Furthermore, seniority wage premia can also discourage companies from hiring older adults that have lost their job (see Box 3.1). In light of this, employment policies and social partners' negotiations would be more effective if they would place more emphasis on actual skills and productivity (OECD, 2019) and performance pay systems, beyond a certain level of tenure (Vandenberghe, 2022).

In contrast, sufficient wage prospects can be key to retain or activate older adults. Seniority wage premia can induce older workers to lengthen their working lives or return to work, since this is more financially rewarding and enables them to accumulate larger pension rights. At the same time, they can be used by companies to attract and retain talent in this age group, acknowledging older adults' valuable knowledge, experience, and skills.

2023 (higher than 40 %), as shown in Graph . The major reason for the inactivity of people aged 55 to 64 has been illness or disability (as declared by 37.1 % of those who were outside the labour force but wanted to work in 2023). Other relevant reasons for inactivity are care responsibilities (17 %) and believing that no job is available (13.6 %).

Graph 3.4: Inactivity rates of older people across Member States (2023)



Source: Eurostat, Labour Force Survey.

The labour force participation of older people declines with age, with differences across demographic groups and Member States. In 2023, the effective age for labour market exit ⁽¹³⁷⁾ stood at 63.8 years for men and 63.5 years for women in the EU ⁽¹³⁸⁾ (see Table 3.4 in Annex 3.1). Participation and employment rates both decline with age ⁽¹³⁹⁾ due not only to the impact of retirement but also to people leaving the labour market before statutory retirement age. Such early exits are more likely for women ⁽¹⁴⁰⁾, people working in elementary occupations ⁽¹⁴¹⁾ such as accommodation and food

services, and people with disabilities ⁽¹⁴²⁾. They are also made more likely by fragmented working histories, fewer opportunities for career development, and care responsibilities, as well as by a lack of flexible and part-time work opportunities ⁽¹⁴³⁾. As concerns the employment of people over the age of 65, there are marked differences across Member States, with larger employment rates in Estonia (17.6 %), Latvia (14.5 %) and Lithuania (12.6 %), mainly due to low pension adequacy. This is interlinked with a lower-than-EU-average income for people over 65 years old compared with that of people between 18 and 64 years old and, as a consequence, a high risk of poverty and social exclusion for this population group ⁽¹⁴⁴⁾. Ireland (14 %), the Netherlands (11.6 %), Denmark (11.1 %) and Cyprus (10.1 %) are also characterised by high employment rates for this age group, which could be due to their higher-than-EU-average statutory retirement age (see Table 3.4 in Annex 3.1 for an overview of statutory retirement age across Member States). In contrast, low employment rates can be found in Romania (2.2 %), Belgium (3.2 %), Spain (3.4 %), France (4.2 %) and Luxembourg (4.2 %) ⁽¹⁴⁵⁾.

3.2.2. Gender, education, health and foreign-born status affect the labour market participation of older people

Among older people, women, individuals with disabilities or lower levels of education, and those who were born outside the EU are more likely to be inactive. The highest activity-rate gaps, compared with the average activity rate of people between 55 and 64 years old, can be observed for those with low educational attainment (activity rate of 53.2 % in 2023 in the EU, a gap of almost 14 pps). The gap is similarly high for people with disabilities (activity rate of 53.4 % in 2022 for people with some disability, a gap of 13.6 pps) ⁽¹⁴⁶⁾. The activity rate of older women is 6.1 pps below the average for older people.

⁽¹³⁷⁾ The average age at which older adults exit the workforce. It is not the same as the average age at which people start drawing pension benefits. Both indicators are in general lower than the statutory retirement age.

⁽¹³⁸⁾ European Commission: Directorate-General for Economic and Financial Affairs (2024). The figures are based on the cumulated exit probabilities for the reference group aged 51 to 74 obtained from the cohort simulation model.

⁽¹³⁹⁾ In 2023, the participation rate was 79.5 % at ages 55 to 59, 53.5 % at ages 60 to 64, 15.7 % at ages 65 to 69 and 5.6 % at ages 70 to 74, while the employment rate was 76 %, 50.9 %, 15.2 % and 5.5 %, respectively.

⁽¹⁴⁰⁾ European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2024) shows that men exit the labour market later than women in most Member States, and 1 year later, on average, in the EU.

⁽¹⁴¹⁾ In elementary occupations, adults perform simple and routine tasks, often with physical effort.

⁽¹⁴²⁾ There are almost three times as many people with disabilities as people without disabilities among those who retire earlier, according to the European Commission (2022).

⁽¹⁴³⁾ Eiffe et al. (2024).

⁽¹⁴⁴⁾ European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2024).

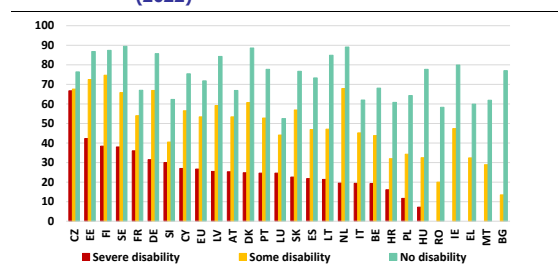
⁽¹⁴⁵⁾ The statutory retirement age only partly explains this, as it lies above the age of 65 (for all adults or some groups of them) in Denmark, Ireland and the Netherlands, but also in Greece, Spain, France, Italy, Portugal, Finland and Sweden.

⁽¹⁴⁶⁾ The difference between the activity rate of older individuals with severe disabilities and the average activity rate of older adults was 40 pps in 2022.

Older people who were born outside the EU are only somewhat more likely to be inactive, with an activity rate gap of 2.4 pps between them and native-born older people ⁽¹⁴⁷⁾.

Older people with lower levels of qualifications have worse labour market outcomes and more challenging working conditions. In 2023, the EU activity rate of older individuals with the lowest educational qualifications (53.2 %) was 27.6 pps below that of those with tertiary education, driven by Member States such as Czechia, Croatia, Lithuania, Romania and Slovakia, where this difference was higher than 40 pps. Moreover, older people with lower levels of education, particularly men, report higher exposure to health risk factors at work. In 2020, 74.7 % of lower-educated people aged 55 to 64 experienced these risks (77.7 % of men and 70.1 % of women) compared with 56.2 % of those with tertiary education. Exposure to physical risk factors at work can have a negative effect on the health of older individuals and might contribute to their labour market exit.

Graph 3.5: Activity rates of individuals aged 55 to 64 with various levels of disability, by Member State (2022)



Note: Disability is measured based on the concept of self-reported 'activity limitation', which captures long-standing limitation in performing usual activities (due to health problems) for at least the past 6 months. Some statistics are omitted due to their low reliability.

Source: Eurostat, Labour Force Survey.

Older people are more likely to suffer from health problems limiting their labour market participation, yet often they do not benefit from reasonable accommodations at work. Currently, one third of all EU individuals in the group aged 55 to 64 suffer from a disability, with the prevalence being highest in Denmark, Estonia, Latvia, the Netherlands, Slovakia and Finland (higher than 40 %), and lowest in Bulgaria, Greece, Italy, Luxembourg and Malta (lower than 20 %). In all Member States, older adults living with disabilities participate in the labour market at lower rates (Graph 3.5). The inactivity rate of older individuals with disabilities was 55 % in the EU in 2022, which can be largely attributed to 13 Member States ⁽¹⁴⁸⁾ where these rates were higher than

60 % (and in particular to Bulgaria and Romania, where this rate was above 80 %). People with limiting health conditions are more likely to become long-term unemployed and exit the labour market, instead of reducing their working hours ⁽¹⁴⁹⁾. This may be partly because only 20 % of adults with a chronic disease, and 30 % of those who are moderately or severely limited in their daily activities by their condition, report having benefited from reasonable accommodations at work ⁽¹⁵⁰⁾. In particular, workers with low educational attainment and those in low-skilled occupations are more likely to have a chronic disease and experience limitations in their daily activities, and are also less likely to benefit from reasonable accommodations at work ⁽¹⁵¹⁾.

Gender gaps also persist for labour force participation and employment at an older age. Even though the activity and employment rates of older women have improved more than those of older men in the EU since 2009 (by an additional 5.7 and 4.9 pps, respectively), these gender gaps remain sizeable (reaching 12.5 and 12 pps in 2023, respectively, compared with 10.4 and 10 pps for the whole workforce). The reasons for inactivity differ by gender. While similar numbers of men and women were inactive in 2022 due to long-term illness or disability (1.1 million and 1.2 million, respectively), other

⁽¹⁴⁷⁾ In addition to people who were born outside the EU, the notion of "people with a migrant background", used for instance in the Action Plan on labour and skills shortages in the EU (European Commission, 2024), also includes EU citizens with foreign-born parents. Since older people aged 55 to 64 with at least one foreign-born parent are economically active at higher rates than native-born older people, they have not been included in this subsection.

⁽¹⁴⁸⁾ Belgium, Bulgaria, Ireland, Greece, Spain, Croatia, Italy, Luxembourg, Hungary, Malta, Poland, Romania and Slovenia.

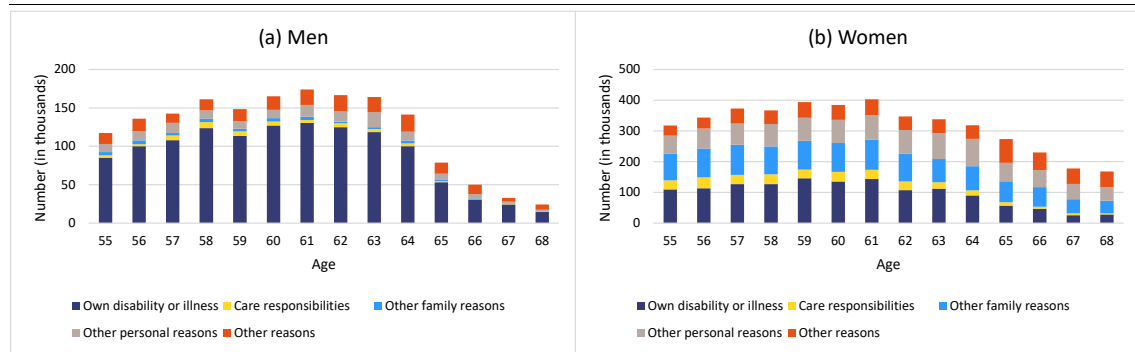
⁽¹⁴⁹⁾ Vandenberghe (2021).

⁽¹⁵⁰⁾ Reasonable accommodations at work may include tasks and duties such as rearrangement, adapting equipment, changing working patterns and retraining adults. A safety and health risk assessment can help determine the choice of accommodations.

⁽¹⁵¹⁾ Mandl et al. (2019).

personal and family reasons and caregiving responsibilities are also major drivers of inactivity among women (Graph 3.6). The gender activity and employment gaps for older people are above 20 pps in Greece, Italy, Malta, Poland and Romania. Activity and employment gaps, along with the gender pay gap, contribute to the formation of the gender pension gap, which stood at 25.4 % in 2023 in the EU ⁽¹⁵²⁾.

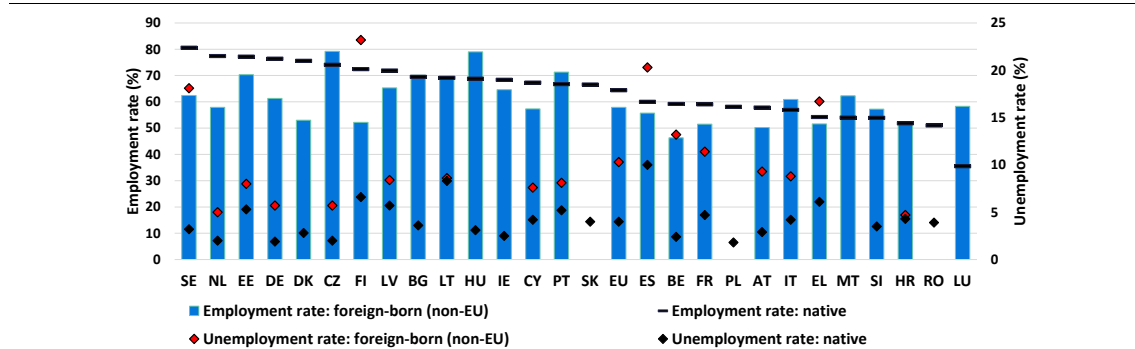
Graph 3.6: Number of inactive non-retired people in the EU in 2022, by gender, age and reason for inactivity



Source: Eurostat, Labour Force Survey.

Older people born outside the EU have worse labour market outcomes than native ones in all Member States. Their unemployment rates are above those of people born in the EU, and their employment rates are below those of natives (i.e. those who were born in the same country where they work; see Graph 3.7). This, however, conceals significant variation across Member States. People aged 55 to 64 born in non-EU countries had employment rates higher than those of natives in Luxembourg, several central and eastern European Member States – Bulgaria, Czechia, Lithuania, Hungary and Slovenia – and some southern European Member States – Italy, Malta and Portugal (Graph 3.7).

Graph 3.7: Employment and unemployment rates of native and foreign-born individuals aged 55 to 64 (2023)



Source: Eurostat, Labour Force Survey.

3.3. PARTICIPATION OF OLDER INDIVIDUALS IN TRAINING ACROSS THE EU

3.3.1. Education and training patterns differ greatly among Member States

Older people participate in less education and training than other age groups. In 2022, 35.4 % of people between the ages of 55 and 64 in the EU reported having taken part in education or training in the previous 12 months, up from 18.5 % in 2007 but below the 46.6 % participation rate for the people

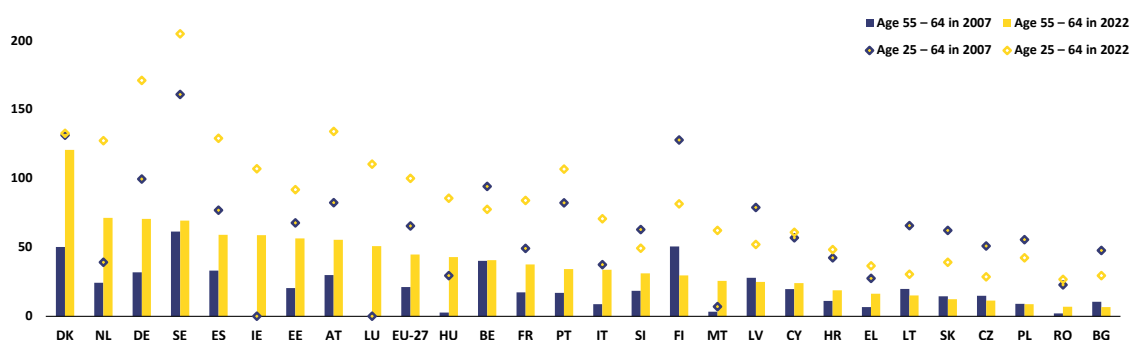
⁽¹⁵²⁾ Eurostat, EU-SILC survey.

between the ages of 25 and 64 ⁽¹⁵³⁾. This reflects the influence of multiple factors. Older adults have less time to reap the benefits of their training. As this chapter shows, they are also better matched to their jobs and work in less dynamic workplaces. Additional determinants include age stereotypes, inadequate training offerings for older workers and the underinvestment of companies in their training.

Although more older workers participate in training now than they did 15 years ago, they tend to complete fewer training hours than in the past in some Member States ⁽¹⁵⁴⁾. With the exception of Bulgaria, a larger share of older individuals participated in training in 2022 than in 2007 in all Member States ⁽¹⁵⁵⁾ (Graph 3.8). The total number of education and training hours completed by older people in the EU rose, driven mainly by sizeable increases in the participation rate in large Member States, such as Germany, Spain, France and Italy. However, over the same period, average instruction hours declined in several Member States, mostly in central and eastern Europe (Graph 3.17 in Annex 3.1), as the decrease in average instruction hours outweighed the increase in training participation rates. The decline in hours per participant may have been the result of a move towards more widespread, but shorter, education and training programmes. In some Member States, however, the statistics may also be capturing health and safety training sessions that employers are mandated to offer to most employees.

There is large variation in training participation across Member States. In 2022, more than half of older people participated in training in Germany, Hungary, the Netherlands and Sweden, while less than 15 % did so in Bulgaria, Greece, Poland and Romania (Graph 3.16 in Annex 3.1). Older individuals in northern and western Europe (especially Denmark, Germany and the Netherlands) completed the highest amount of education and training, and those in central and eastern Europe (particularly Bulgaria, Poland and Romania) completed the lowest amount (Graph 3.8). By contrast, older workers in Bulgaria, Czechia, Latvia, Lithuania, Hungary, Poland, Romania and Finland participated in fewer training hours (Graph 3.17 in Annex 3.1).

Graph 3.8: Amount of education and training completed by working-age and older people in 2007 and 2022



Note: Amount of education and training completed is the product of a participation rate index and an average instruction hours index. Baseline: ages 25 to 64 in the European Union in 2022 = 100.

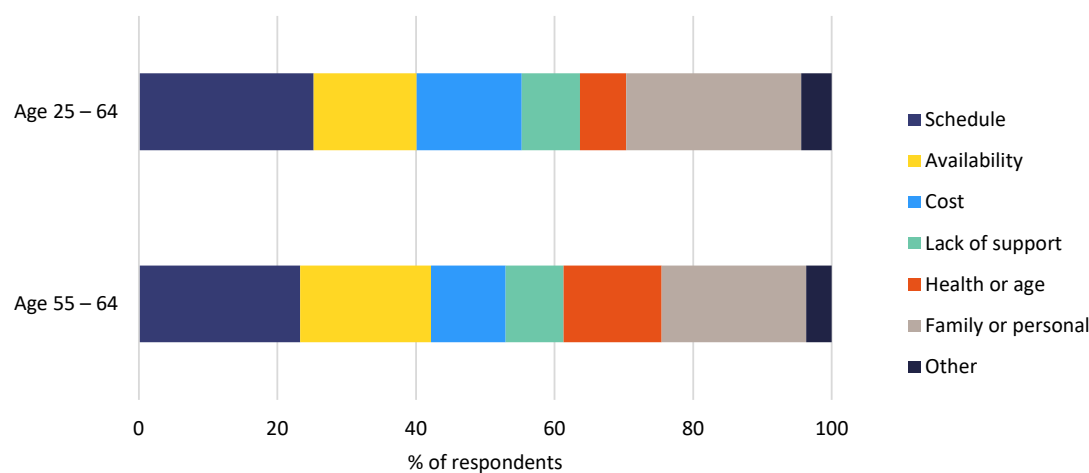
Source: Eurostat, Adult Education Survey.

⁽¹⁵³⁾ The European Pillar of Social Rights action plan sets a target of ensuring that at least 60 % of all adults be participating in training every year by 2030. See European Commission (2021b).

⁽¹⁵⁴⁾ In the discussion that follows, the number of training hours is adjusted by the size of the age group. In this way, the comparisons capture differences in the intensity of training and education that specific age groups complete, and are not driven by changes in their relative sizes.

⁽¹⁵⁵⁾ Statistics are not available for the education and training participation rates in Ireland and Luxembourg in 2007.

Graph 3.9: **Main reasons for not participating in training and education among individuals wanting to participate (2022)**



Note: 'Availability' comprises 'distance', 'no suitable offer', 'course booked out' and 'too few registrations' as possible reasons for non-registration. 'Lack of support' can be from the employer or from public services. Figure does not include respondents who did not provide a response.

Source: Eurostat, Adult Education Survey.

Older individuals wanting to participate in training cite health, age and course availability as the main reasons for their non-participation (Graph 3.9). Among the supply-side reasons given, older people mentioned course availability more frequently and cost less frequently than did younger people. On the demand side, health and age were more prominent among older people, while family and other personal reasons played a larger role among younger people. In both age groups, about 8 % of adults reported lack of support, either from their employers or from public services, as the main reason for their non-participation in training.

Older people transition from unemployment to employment at higher rates when they complete more education (Graph 3.18 in Annex 3.1). The country in which they complete the greatest number of training hours (about 20 % more than people aged 25 to 64 in the EU), Denmark, also has the highest transition rate (more than 30 %) from unemployment to employment among all Member States. Older unemployed individuals also find jobs at a relatively high rate in other countries with high training levels, such as Germany, the Netherlands and Austria. In contrast, in Member States with low training levels (e.g. Bulgaria, Greece, Romania and Slovakia), older individuals transition from unemployment to employment at much lower rates (below 10 % per quarter). This pattern is consistent with the research literature, which indicates that education and training policies are among the most effective tools for promoting the employment of older workers, especially when they also incorporate search assistance and counselling ⁽¹⁵⁶⁾.

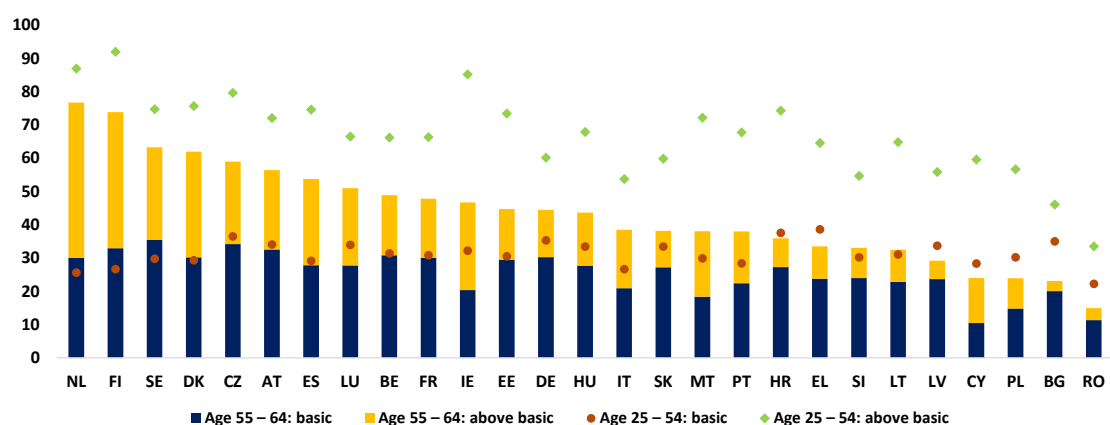
Older people have lower levels of digital skills, although these skills depend strongly on their level of education. Among those aged 55 to 64, 44 % of individuals have at least basic digital skills, compared with 64 % of those aged 25 to 54 ⁽¹⁵⁷⁾. Basic digital skills are increasingly required across a wide range of workplaces, which makes it particularly important for older individuals to acquire and develop them. There is significant variation across Member States; the Netherlands and Finland have the highest percentages of older people with at least basic digital skills (above 70 %), and Romania has the lowest (at only 14 %) (Graph 3.10). In all Member States, higher levels of formal education are associated with

⁽¹⁵⁶⁾ Orfao and Malo (2023).

⁽¹⁵⁷⁾ The EU Digital Decade policy programme sets the target of 80 % of the population having at least basic digital skills by 2030.

better digital skills for those aged 55 to 74⁽¹⁵⁸⁾ (Graph 3.19 in Annex 3.1). Older people with low levels of formal education have particularly weak digital skills in several central and eastern European countries – especially in Bulgaria, Latvia, Lithuania and Romania (Graph 3.19 in Annex 3.1).

Graph 3.10: Digital skills of older people in 2023: share of individuals aged 25 to 54 and 55 to 64 with basic or above-basic digital skills



Note: The digital skills measure is based on a composite indicator that covers selected activities related to internet or software use in five specific areas: information and data literacy, communication and collaboration, digital content creation, safety, and problem solving.

Source: Eurostat, Digital Skills Indicator.

3.3.2. Older people work in less dynamic workplaces, but are better matched to their jobs

Better skills matching may lower the demand among older people for education and training. Older workers are more likely to be using their current knowledge and skills at work, and report less need for extensive skill development. They work less frequently in jobs related to their field of study, and are less likely to be overqualified for their positions – that is, to work in a job for which a lower level of education would be sufficient. On the contrary, they are more likely than younger adults to work in jobs that nowadays require a higher level of education than they possess (Graph 3.20(a) in Annex 3.1). Certainly, unemployed older individuals may still face a mismatch between the skills they possess and those that are requested in the labour market.

Furthermore, older people tend to work in less dynamic workplaces, which can also lower their training demand. Older workers are less likely to be employed in workplaces that have recently undergone changes, such as relocating work, introducing new products or services, adopting new digital technologies, or implementing new working or management methods (Graph 3.20(b) in Annex 3.1). This means that they may be less affected by having lower digital skills and by their lower levels of training. Indeed, based on evidence on the change in productivity with age, working in jobs that rely on long experience and accumulated knowledge may improve the productivity of older people⁽¹⁵⁹⁾.

⁽¹⁵⁸⁾ This comparison focuses on those aged 55 to 74, as this is the group for which Eurostat publishes breakdowns by formal education level. This measure of digital skills is based on a composite indicator that covers selected activities related to internet or software use in five specific areas: information and data literacy, communication and collaboration, digital content creation, safety, and problem solving.

⁽¹⁵⁹⁾ Picchio (2021); Desjardins and Wamke (2012).

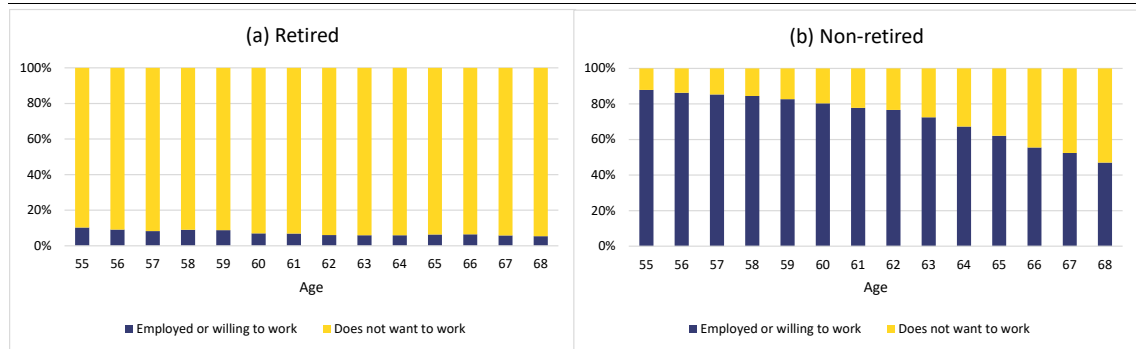
3.4. PROJECTION OF FUTURE LABOUR MARKET ACTIVITY AND POTENTIAL OF OLDER PEOPLE

This analytical section discusses the potential for activation of older people in the EU labour market. It presents the model results for the expected structure of the future active and inactive population of individuals aged 55 and over and discusses the main factors influencing its size and composition. The description, structure and specification of the model used for these projections is described in Annex 3.2. The projections take into account current pension legislation, including already adopted forward-looking adjustments of statutory retirement age, expected future retirement patterns due to changing educational and occupational structure, and demographic change, as well as broader trends in inactive subgroups that are affected by education, occupation, health and disability. In contrast to the rest of the chapter, this section extends the age span examined to 55–68 and presents the results for both the 55–64 and 65–68 age groups, primarily because projections show significant expected changes in retirement and activity behaviour in the group aged 65 to 68.

The presented projections give novel insights into future labour market dynamics for older people. Compared with the projections presented in the *2024 Ageing Report* ⁽¹⁶⁰⁾, there are several similarities, as well as some differences. The *2024 Ageing Report* focuses primarily on projections of fiscal and budgetary sustainability and effects, with limited presentation of the projections on labour market activity and the structure of the population of older people, which is the focus of the projections in this section. The *2024 Ageing Report* projects an increase of 10 pps in the employment rate of people aged 55 to 64 by 2070. This would lead to average employment rates increasing by 4 pps, with an increase of 6 pps expected for women and of 2 pps expected for men, which indicates a trend in line with the projections presented in this section.

3.4.1. Retirement, disability and long-term inactivity of women as the main structural determinants of inactive older individuals

Graph 3.11: Share of retired and non-retired people in the EU in 2022 who are not willing to work, by age



Source: Own calculations using Eurostat, Labour Force Survey.

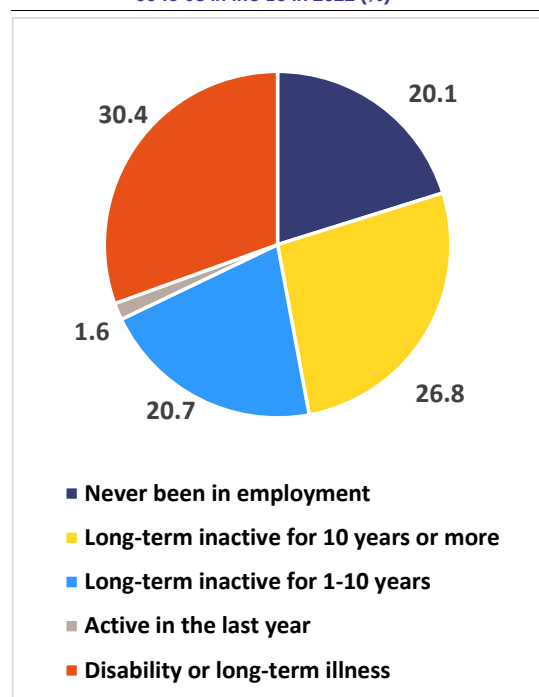
Retirement is identified as the most important determinant of the inactivity of older people in the labour market. The willingness of current retirees to work is very low ⁽¹⁶¹⁾, regardless of age (Graph 3.11). On average, less than 7.7 % of retirees aged 55 to 64 are willing to work in 2022, even if they retire at a young age, and only 6 % in the group aged 65 to 68 are willing to work. Conversely, the willingness of non-retirees to work decreases only gradually with age. This suggests that the labour market projection must examine the composition and trend projection of retired and non-retired

⁽¹⁶⁰⁾ European Commission: Directorate-General for Economic and Financial Affairs (2024).

⁽¹⁶¹⁾ Based on the Labour Force Survey. The Labour Force Survey has a hierarchy of questions related to labour market activity that get asked only if the previous question is responded to with a no. The questions concern (1) activity, (2) seeking employment and (3) willingness to work. The quoted number concerns the share of retirees that responded explicitly that they are not willing to work.

populations separately, and must also examine the transition into retirement. Furthermore, this indicates that one of the main policy challenges is to encourage people to postpone their labour market exit.

Graph 3.12: Share of inactive non-retired women aged 55 to 68 in the EU in 2022 (%)



Source: Eurostat, Labour Force Survey.

10 consecutive years, and only 2.3 % have been in the labour force in the last year (Graph 3.12). Long periods of inactivity are often due to caring responsibilities after the birth of children and no subsequent return to the labour market. Many older inactive women remain inactive even after reaching statutory retirement age, as they do not fulfil the requirements for formal retirement and are often dependent on their male partner's pension as the sole household income, which also leads to higher poverty rates among older women.

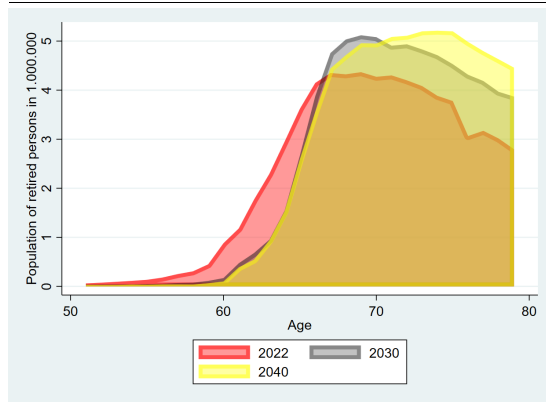
Retired people constitute the majority of inactive older people. In 2022 there were 26.8 million retired people aged 55 to 68, of which 10.3 million were aged 55 to 64 and 16.5 million were aged 65 to 68. However, due to the low activity rates of the retired population, only 1.6 million of all the retired people were active in 2022. Among the inactive retired people aged 55 to 68, 26.8 % had limitations in performing their usual daily activities due to health problems (7.3 % had severe limitations) ⁽¹⁶²⁾.

Long-term inactive women are the largest inactive group among the non-retired. As already discussed in the previous section, three times as many older women as men are inactive, which is primarily due to personal and family reasons as well as caring responsibilities (Graph 3.6). In the EU, 67.2 % of inactive women aged between 55 and 68 (64.9 % for those aged 55 to 64) without disabilities or long-term illness either have never been on the labour market (28.8 % for those aged 55 to 68; 27.2 % for those aged 55 to 64) or have not been in employment for more than 10 consecutive years (38.4 % for those aged 55 to 68; 37.7 % for those aged 55 to 64). Only 32.1 % have been out of the labour force for less than

⁽¹⁶²⁾ This refers to individuals categorised as having either 'severely limited activity' or 'limited activity, but not severely' based on the Global Activity Limitation Indicator of the Labour Force Survey. It thus includes individuals who are unable to perform or complete an activity without extreme difficulty and who typically require help from other people (severely limited activity) as well as those who perform activities with some difficulty, generally without needing daily help from other people.

3.4.2. Pension reforms and cohort changes are projected to bring more older people into the labour force

Graph 3.13: **Model-based projection of the retired population in the EU by age**



Source: Own calculations.

This subsection presents the results of a forward-looking projection of expected labour market dynamics for older workers. Demographic change, changes in the conditions for retirement and changes in the educational and occupational structure are the main factors influencing the distribution and size of the retired and non-retired populations. The model is based on Eurostat’s baseline demographic projections, combined with Labour Force Survey microdata to account for the changing educational and occupational structure of the older population, as well as publicly available data on current and future statutory retirement age based on current legislation in each Member State, including future changes already included in the legislation (Annex 3.2).

Altogether, the model projections point to an expected increase in the number of active people aged 55 to 68 of 8.8 million by 2030 and 8.2 million by 2040. This represents the joint effect of an increase in the effective retirement age (due to both recent pension reforms and the changing socioeconomic structure), an increase in old-age disability, a decline in the size of the long-term inactive subgroups and demographic change (Table 3.1).

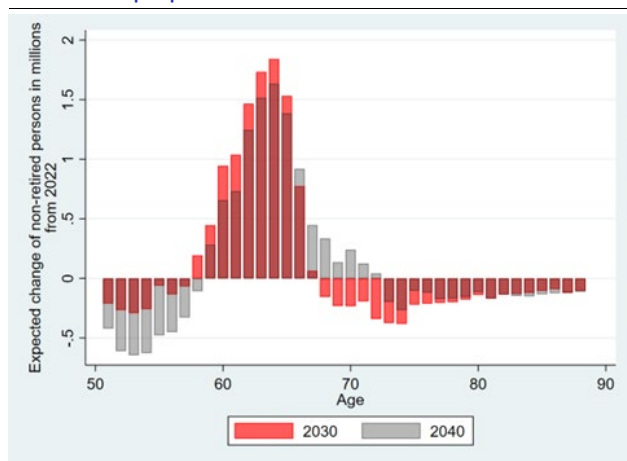
Table 3.1: **Expected increase (in millions) of active people aged 55 to 68 in the EU up to 2030 and 2040, by influencing factor**

Year	2030			2040		
	55 – 64	65 – 68	55 – 68	55 – 64	65 – 68	55 – 68
Retirement reforms	4.8	1.5	6.3	5.6	2	7.6
Increase in disability and long-term illness	-0.1	-0.1	-0.2	-0.2	-0.2	-0.4
Generational shift – decline of long-term inactive older women	0.5	0.2	0.7	0.8	0.4	1.2
Demographic change	0.8	1.2	2	-1.3	1.1	-0.2
Total expected change	6	2.8	8.8	4.9	3.3	8.2

Source: Own calculations.

The currently adopted retirement reforms are the main factor behind the expected increase in the activity of older people. In the future, there are expected to be fewer younger retirees aged 60 to 65, primarily due to pension reforms in which the increase in the statutory retirement age is already anchored (Graph 3.13). By 2030, the non-retired population between the ages of 55 and 64 is expected to increase by 7.4 million and the non-retired population between the ages of 65 and 68 by 2.2 million (Graph 3.14). Conversely, the retired population in the same age group is expected to decline by 6.9 million people. Primarily due to differences in the expected activity rates of the retired and non-retired populations, the projected population shift in favour of non-retired people due to retirement reforms is expected to bring 6.3 million new active individuals into the labour market by 2030 and 7.6 million by 2040, with the group aged 65 to 68 representing 26 % of the expected increase.

Graph 3.14: Expected change from 2022 (in millions) in non-retired people in the EU



Note: The two graphs indicate expected changes from 2022 to 2030 and from 2022 to 2040, with dark red representing the overlap of the two graphs.

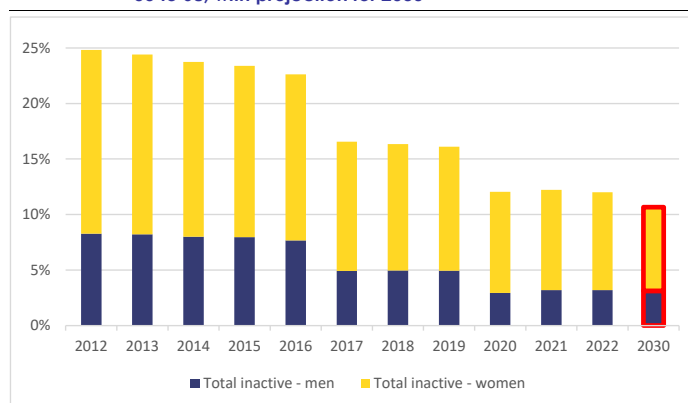
Source: Own calculation.

Population ageing alone is expected to increase the number of active older people by 2030, but will have a negligible effect by 2040. The demographic increase in the number of economically active people aged 55 to 64 of 0.8 million by 2030 is projected to be reversed by 2040, with a 1.3-million-person decline compared with 2022 (Table 3.1). By 2040 the size of the population of the group aged 55 to 68 will be similar to its 2022 level, as the increase in the group aged 65 to 68 is expected to be similar to the decrease in the group aged 55 to 64. The strongest increase in the number of older people is forecast for the population group aged over 75, although this is not expected to have a significant impact on the dynamics of the labour market due to their retirement.

The rising share of inactive people with disabilities or long-term illness is expected to exert a limited negative effect on the overall activity rate. The trend of a growing share of inactive people with disabilities is largely a direct consequence of an increasing effective retirement age, as health problems worsen with age. The increasing use of disability schemes and other alternative schemes to exit from the labour market is also linked to the tightening of retirement schemes. However, the increase in inactivity due to disability is predicted to decrease the active population by around 0.2 million by 2030 and 0.4 million by 2040, indicating a high net positive effect of pension reforms on the labour market activity of older people (Graph 3.14).

Generational shifts are expected to reduce the long-term inactivity rate of older people and contribute an additional 1 million active people, mainly women, by 2030. As already described in the previous subsection, most inactive non-retired women either have never been in the labour market (28.8 %) or have been inactive for more than 10 consecutive years (38.4 %) (Graph 3.12). However, there is a trend of a gradual decline in long-term inactive older people, primarily because younger women have higher activity rates in their active years, leading to higher expected activity rates in their older years (Graph 3.15). This trend is expected to continue according to the projections, primarily due to younger and more active cohorts maintaining higher activity rates as they get older.

Graph 3.15: Ten-year trend of the EU inactive non-retired population aged 55 to 68, with projection for 2030



Sources: Eurostat, Labour Force Survey, and own calculations.

3.4.3. The expected composition of the remaining inactive older population can help to better target activation policies

This section presents the projected composition of the inactive older population. While the previous subsection presented the expected labour market developments under the assumption of continuation of past trends, this subsection aims to present the composition and characteristics of the projected remaining inactive older people.

Inactive retired people are expected to represent the biggest group of inactive older people in 2030. The number of retired inactive older people is likely to reach 19.3 million in 2030, of whom 0.5 million are projected to be in the group aged 55 to 59, 3.6 million in the group aged 60 to 64 and 15.2 million in the group aged 65 to 68 (Table 3.2). There are expected to be 10 million inactive retired women and 9.3 million inactive retired men in 2030. Of all the inactive retired people aged 55 to 68, 5.3 million are anticipated to have limitation in activities due to health problems or disability.

Table 3.2: **Expected inactive retired people aged 55 to 68 in 2030 (in millions)**

	Age	Inactive
Men	55 – 59	0.3
	60 – 64	1.7
	65 – 68	7.3
Women	55 – 59	0.2
	60 – 64	1.9
	65 – 68	7.9
Total		19.3

Source: Own calculations.

Table 3.3: **Expected inactive non-retired people aged 55 to 68 in 2030 (in millions)**

Age group	55 – 64	65 – 68	55 – 68
Long-term inactive women	2	0.7	2.7
Long-term inactive men	0.3	0.1	0.4
People with disabilities or long-term illness	2.1	0.4	2.5
Inactive for less than 10 years	1.4	0.1	1.5
Total remaining inactive potential	5.8	1.3	7.1

Source: Own calculations.

By 2030, the number of inactive non-retired individuals aged 55 to 68 is expected to be 7.1 million (Table 3.3). Despite the ageing of more active younger cohorts, there would still be 2.7 million women (38 % of the total) inactive for more than a decade. Some 2.5 million (35 % of the total) would be people with disabilities or long-term illness.

Despite positive activation trends, the size of the inactive non-retired older population will remain significant, especially among people with disabilities or long-term illness and long-term inactive women.

Improved targeting and more tailored policies will be essential to activate older people. Specific policies will need to be devised to reach each of these subgroups, in particular retired people, long-term inactive women and people with disabilities or long-term illness. Furthermore, activation policies aimed at older people, particularly those with disabilities or severe illness, should consider in which cases further labour market activity is not possible or desired and ensure that gradual market exit is supported. The next section discusses in more depth activation policies targeting older people.

3.5. POLICIES TO FACILITATE THE EMPLOYMENT OF OLDER PEOPLE

Policies can support the employment of older people by addressing their specific vulnerabilities and barriers. This involves adjusting the incentives to work via the retirement system, unemployment and disability insurance schemes, the promotion of flexible working arrangements as well as reasonable accommodations at work, improving employability throughout the life course with measures promoting health and skills development and adequate care services, measures promoting the hiring and labour market transitions of older people and measures to counter age discrimination.

Several horizontal EU initiatives aim, among others, to empower older people in the labour market. The Demography Toolbox ⁽¹⁶³⁾ presents a set of policy tools available to Member States for managing

⁽¹⁶³⁾ European Commission (2023c).

demographic change and its impacts on the EU's society and economy. In particular, it highlights the existing EU-level tools as well as new initiatives to empower older generations to remain active for longer. The Action Plan on labour and skills shortages in the EU ⁽¹⁶⁴⁾ puts forward new actions to tackle these shortages, which include, inter alia, measures to further harness the labour potential of underrepresented groups in the labour market, including older adults. Furthermore, country-specific recommendations, in the context of the European Semester, promote the improvement of accessibility, quality and fiscal sustainability of healthcare systems, which also play a role in promoting healthy ageing and enabling older people to work longer.

Moreover, a broad range of EU policies contributes to the employment of certain groups of older workers and, more generally, to improving their working conditions. The Council Recommendation on the integration of the long-term unemployed into the labour market ⁽¹⁶⁵⁾, which offers policy guidance for activation measures at the national level, is particularly relevant for older adults, who are more likely to become long-term unemployed. The Council Recommendation on access to affordable and high-quality long-term care ⁽¹⁶⁶⁾ and the Council Recommendation on early childhood education and care ⁽¹⁶⁷⁾ provide guidance to Member States to strengthen the adequacy, availability and quality of care and long-term care for all who need it, thereby aiming to address the problem of care responsibilities as a driver of inactivity, especially for women. Moreover, the Employment Equality Directive ⁽¹⁶⁸⁾ provides protection against discrimination in employment on the grounds of, among others, age and disability ⁽¹⁶⁹⁾. The EU framework Directive on occupational safety and health ⁽¹⁷⁰⁾ aims to ensure adequate working conditions for older people in the workplace ⁽¹⁷¹⁾.

This section looks at the evidence on the effectiveness of a wide range of policy measures that can support the employment of older workers. It covers the policy domains of retirement systems and labour market policies, including measures to improve working conditions and promote education and training. It also presents some examples of recently adopted or implemented measures across Member States. It aims to inform national and EU policies to support the employment of older people.

3.5.1. Well-designed pension systems can promote the labour market participation of older people

Reforms of the pension system and the provision of disability and unemployment benefit schemes can provide enhanced incentives for the employment of older workers. Such reforms can include increasing the statutory retirement age or the contributory period for a full pension; discouraging early retirement; fair adjustments and incentives for deferred retirement; and greater flexibility for combining work and retirement. These reforms should take into account individual characteristics, such as gender, disability and health, as well as the degree of job strain in certain occupations. Disability and unemployment benefits, which can provide an alternative exit pathway from the labour market before retirement age, can reduce incentives to remain active. Tightening the eligibility criteria without jeopardising the main goals of the schemes could to a certain extent stimulate employment among older people. However, such reforms should respect these schemes' primary aims of income maintenance and poverty prevention.

⁽¹⁶⁴⁾ European Commission (2024).

⁽¹⁶⁵⁾ Council of the European Union (2016).

⁽¹⁶⁶⁾ Council of the European Union (2022c).

⁽¹⁶⁷⁾ Council of the European Union (2022d).

⁽¹⁶⁸⁾ Directive [2000/78/EC](#).

⁽¹⁶⁹⁾ It requires, among other things, employers to provide reasonable accommodations for people with disabilities to facilitate their work. Additional policies to promote the rights of persons with disabilities are presented in European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2021).

⁽¹⁷⁰⁾ Directive 89/391/EEC.

⁽¹⁷¹⁾ Eurofound (2017); OECD (2019).

Several Member States have increased the labour market participation of older people by raising the statutory retirement age, individualising pension entitlements and phasing out special pensions, in addition to restricting early retirement. Since 2020, five Member States (Denmark, France, Hungary, Slovakia and Sweden) have raised their statutory retirement ages. As a result, the retirement age currently stands at around 65 in most Member States ⁽¹⁷²⁾. In addition, reforms to limit early retirement were adopted in, among others, Czechia, Estonia, Greece, France, Croatia, Italy and Austria. They involved, for instance, lengthening the period of insurance granting the right to retirement and moving the age of eligibility for early retirement closer to the statutory retirement age ⁽¹⁷³⁾. Some countries switched from a defined-benefit to a defined-contribution statutory pension scheme (e.g. Italy and Sweden).

More recent pension reforms have shifted the focus towards positive incentives to promote longer working lives. Longer working lives can contribute to intergenerational learning, as both older and younger workers can benefit from each other's knowledge and experience ⁽¹⁷⁴⁾, as well as to improved pension adequacy and thus to quality of life. Indeed, according to the simulations of the *2024 Pension Adequacy Report* ⁽¹⁷⁵⁾, adequate pensions in the future will increasingly depend on longer careers. Member States have introduced measures that allow people who continue working beyond the retirement age to accrue additional pension benefits ⁽¹⁷⁶⁾; phased retirement systems in Germany, Luxembourg, Austria and Sweden allow workers to gradually reduce their work commitments without affecting their final salaries, while people can defer retirement to a higher age in Estonia, Hungary, Romania, Finland and Sweden ⁽¹⁷⁷⁾. To tackle labour shortages, a few Member States, such as Luxembourg, have relaxed rules restricting paid employment for early retirees.

3.5.2. Flexible work arrangements, accessible workplaces and effective collective bargaining can contribute to extending working lives

Flexible work arrangements, including part-time work, can contribute to extending working lives, especially for older people with care responsibilities. Research finds that older workers are as capable of teleworking as prime-age people ⁽¹⁷⁸⁾. Removing barriers to part-time work – such as the administrative, bargaining and implementation costs of reducing working hours – can encourage older adults to remain in the labour force for longer and, in turn, lead to a slower decrease in the total number of hours worked by older workers than will occur if they have more rigid constraints on hours ⁽¹⁷⁹⁾.

Accessible and inclusive workplaces and return-to-work policies can help older people, especially those with health problems or disabilities, to remain in or return to the labour force. Member States may enact anti-discrimination and occupational health and safety legislation and policies that go beyond the minimum requirements set at the EU level. Guidance and information can be provided to employers on legal requirements and available support for implementing reasonable accommodations at work ⁽¹⁸⁰⁾ and on improving the accessibility and inclusiveness of workplaces ⁽¹⁸¹⁾. Risk assessments can inform the design of accommodations for continued employment or measures to support the return to work after illness (such as vocational rehabilitation schemes). Member States put in place various measures such as quotas, subsidies and information for businesses to increase the employment of people with

⁽¹⁷²⁾ See Table 3.4 in Annex 3.1 for an overview of statutory retirement age across Member States.

⁽¹⁷³⁾ European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2024).

⁽¹⁷⁴⁾ International Labour Organization (2019); OECD (2020).

⁽¹⁷⁵⁾ European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2024).

⁽¹⁷⁶⁾ Denmark, Estonia, Spain, Croatia, Malta, Austria, Finland and Sweden.

⁽¹⁷⁷⁾ For more details, see European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2024).

⁽¹⁷⁸⁾ Chen and Munnell (2020).

⁽¹⁷⁹⁾ Albinowski (2024).

⁽¹⁸⁰⁾ Even though the provision of reasonable accommodations at work for people with disabilities is an obligation under the employment equality directive ([Directive 2000/78/EC](#)), it may still be lacking in some workplaces.

⁽¹⁸¹⁾ To this end, the European Commission and relevant stakeholders developed the disability employment package to improve labour market outcomes for people with disabilities. The disability employment package is part of European Commission (2021a).

disabilities⁽¹⁸²⁾. More broadly, some Member States have adopted preventive measures to decrease the likelihood of health-related issues, such as the obligatory psychosocial risk assessment of working practices in Denmark and the provision of reskilling and alternative job opportunities for those that work in arduous occupations in Belgium and France⁽¹⁸³⁾.

Social dialogue and collective bargaining play a crucial role in ensuring better and more adaptable working conditions and in extending working lives. Workers in sectors with effective collective agreements often benefit from better working conditions that are adaptable to their needs, strong workplace safety and reduced physical and psychosocial risks; in turn, they exhibit lower absenteeism rates and express a preference for later retirement⁽¹⁸⁴⁾. Moreover, in some Member States such as Bulgaria and Romania, collective agreements in certain sectors contain clauses protecting people close to retirement from dismissal. Collective agreements also provide for seniority-based additional annual leave in Bulgaria, Estonia, Luxembourg, the Netherlands and Austria. This additional leave supports older workers in achieving a better work–life balance, thus likely encouraging them to remain in employment.

3.5.3. Appropriately tailored education and training promote the employment of older workers

Education and training can promote the re-employment of older people very effectively but must reflect their needs. Training measures have been shown to outperform alternative policies (including wage subsidies) in promoting the employment of older people, especially when they also incorporate search assistance and counselling⁽¹⁸⁵⁾. However, training should be inclusive, accessible and tailored to the needs of older learners, who frequently mention scheduling difficulties and course availability as reasons for their non-participation. This can be achieved by short, modular and flexible courses⁽¹⁸⁶⁾ and by in-house one-to-one training or training with the same age cohort⁽¹⁸⁷⁾.

Digital skills can not only help older people perform job tasks but also improve their access to the labour market. Given the limited digital skills of older adults and the increasing importance of digital tools (especially since the COVID-19 pandemic), some Member States (Cyprus, Slovenia and Slovakia) have enacted policies to enhance the digital skills of older people, supported at the EU level by the Digital Decade policy programme⁽¹⁸⁸⁾ and with funding from the Recovery and Resilience Facility⁽¹⁸⁹⁾.

Direct subsidies, individual learning accounts and paid leave can promote training for older people. Direct subsidies such as financial grants or vouchers have been found to be more effective than tax incentives to support training participation and facilitate the targeting of specific groups of employees⁽¹⁹⁰⁾. Furthermore, individual learning accounts enable all individuals (employed and not employed) to accumulate funds for labour-market-relevant training. Evidence from the Netherlands and Austria suggests that individual learning accounts can boost training participation⁽¹⁹¹⁾ and learning intentions among older adults⁽¹⁹²⁾. Another way to lower the cost of training for older employees

⁽¹⁸²⁾ Waddington (2023). See also the country reports of the [European Disability Expertise](#) project.

⁽¹⁸³⁾ OECD (2019).

⁽¹⁸⁴⁾ According to Eurofound (2021), the definitive trait of sustainable work is an interplay between working and living conditions that ‘support[s] people in engaging and remaining in work throughout an extended working life’.

⁽¹⁸⁵⁾ Orfao and Malo (2023). On the relative ineffectiveness of wage subsidies, see Vodopivec et al. (2019) and Boockmann (2015). In addition, a study of the WeGebAU programme in Germany, which subsidises further training for older individuals, has found that it encouraged them to stay employed by improving their job satisfaction and thus encouraging their later retirement, rather than by making involuntary layoffs less likely. See Dauth and Toomet (2016).

⁽¹⁸⁶⁾ This approach is consistent with Council of the European Union (2022a) and Council of the European Union (2022b).

⁽¹⁸⁷⁾ OECD (2023a).

⁽¹⁸⁸⁾ Decision 2022/2481.

⁽¹⁸⁹⁾ See for example Cedefop (2023).

⁽¹⁹⁰⁾ Müller and Behringer (2012).

⁽¹⁹¹⁾ Vodopivec et al. (2019).

⁽¹⁹²⁾ Renkema (2006).

involves paid training leave ⁽¹⁹³⁾. In Belgium, for instance, private-sector employees can be absent from work for an approved training course, while retaining their salaries. Their employer can then reclaim part of the salary paid from the regional government ⁽¹⁹⁴⁾.

3.5.4. Wage subsidies and job search requirements can support the demand for, and supply of, older workers

On the demand side, wage subsidies need to be well targeted to be effective. Subsidies can help firms to align the costs of employing older workers with their possibly reduced productivity. However, evaluations of schemes used in the 2000s in Belgium, Germany and Finland found that wage subsidies had only limited effectiveness in promoting the hiring of older people and carried high deadweight costs ⁽¹⁹⁵⁾. These results hint at important demand-side barriers to the hiring of older workers and emphasise the need to ensure that wage subsidies are well targeted at disadvantaged older people and are used to prevent their long-term unemployment ⁽¹⁹⁶⁾. Although evidence on the effectiveness of wage subsidies targeted at older people is limited, studies focused on broader age groups have found that well-targeted subsidies can be effective ⁽¹⁹⁷⁾. Moreover, comprehensive support packages that combine tailored advice and training with employment subsidies facilitate job transitions more effectively than more isolated interventions ⁽¹⁹⁸⁾.

On the supply side, job search requirements can incentivise the employment of older workers. Since 2009, exemptions for older people from job search requirements have been pared down in Belgium, Germany and France ⁽¹⁹⁹⁾ to restrict exit from the labour market into unemployment benefit schemes. Evidence suggests that such requirements, alongside increased job search monitoring, can promote the employment of older workers, partly by lowering their reservation wages. However, they can also have the unintended effect of diverting older workers to invalidity and sickness schemes where insufficient controls are in place ⁽²⁰⁰⁾. Moreover, measures to tackle demand-side constraints in hiring can increase the effectiveness of job search requirements, along with training policies to improve the skills of long-term unemployed older adults ⁽²⁰¹⁾.

3.5.5. Anti-discrimination measures, skills-based hiring and long-term policies that improve the employability of younger cohorts can enhance older people's labour force participation

Legislation against age discrimination is in place in all Member States, but additional measures could contribute to effectively tackling this challenge. The enforcement of strong anti-discrimination policies can end more overt forms of discrimination such as age limits in job vacancy announcements. In the Netherlands, job vacancy notices are screened for discriminatory language as part of the 'vacancies for all ages' initiative. Some countries, such as Denmark and Poland, have abolished mandatory

⁽¹⁹³⁾ As highlighted in the International Labour Organization's older workers recommendation of 1980 (No 162), older adults should enjoy equality of opportunity and treatment with other adults, in particular as regards access to paid educational leave, especially for the purpose of training and trade union education.

⁽¹⁹⁴⁾ OECD (2023a).

⁽¹⁹⁵⁾ Boockmann et al. (2012); Boockmann (2015); Huttunen et al. (2013); Albanese and Cockx (2015).

⁽¹⁹⁶⁾ OECD (2019).

⁽¹⁹⁷⁾ Levy Yeyati et al. (2019); Vooren et al. (2019).

⁽¹⁹⁸⁾ Eiffe et al. (2024).

⁽¹⁹⁹⁾ Recent reforms in Finland have aimed to increase work incentives by tightening the eligibility conditions of the unemployment benefit scheme: in 2023, the age of eligibility for additional unemployment days was increased; in 2024, the obligation of local governments to provide employment to unemployed older individuals who have used up their maximum unemployment allowance period was abolished, and age-based guarantees in the calculation of earnings-related unemployment allowances were discontinued. The Netherlands already removed this restriction in 2004.

⁽²⁰⁰⁾ Bloemen (2022).

⁽²⁰¹⁾ Eiffe et al. (2024).

retirement ages as a valid reason to terminate labour contracts ⁽²⁰²⁾. Investments in lifelong learning can also contribute to fighting age discrimination ⁽²⁰³⁾.

Older people can benefit from the recognition of skills gained on the job and from skills-based hiring. Many older adults, whose formal education qualifications may be out of date, have accumulated valuable skills through their work experience and on-the-job training. Recognising such skills and increasing their visibility could enhance the labour force participation of older people and could also counteract employer bias. For example, Belgium and Estonia have programmes in which training providers can assess the competence of an applicant by validating their previous relevant experience ⁽²⁰⁴⁾. Older people would also benefit from skills-based hiring, focused on specific skills and competences instead of the formal education credentials that traditional hiring practices screen for ⁽²⁰⁵⁾. For instance, the French Public Employment Service selects candidates for employer interviews based on aptitude tests and without regard to age or previously held employment ⁽²⁰⁶⁾, as encouraged by the Council recommendation on the validation of non-formal and informal learning ⁽²⁰⁷⁾.

Long-term policies that improve the employability and labour market attachment of younger cohorts can help to prevent their future inactivity as older people. This could include providing social investment measures to improve health and skills throughout the life course, along with adequate social protection and access to affordable and quality care facilities. In addition, policies should promote the full-time labour force participation of women throughout their life cycle, including with tax incentives, as women who are economically active earlier in their lives tend to show higher labour force participation and lower poverty rates in old age.

3.6. CONCLUSION

People between the ages of 55 and 64 participate in the labour market more than in the past. The labour force participation and employment rates of older people have improved considerably over the past 15 years without negatively affecting those of young people. Increasing life expectancy, improving health, higher educational attainment and increased female labour force participation, along with supportive retirement, unemployment, disability and employment policies, have all contributed to this trend. The increase in the employment rate of older workers can be mainly attributed to higher job retention rates rather than the persistently low job-hiring rates. Higher severance costs and, in some Member States and sectors, employment protection legislation may contribute to employers' reluctance to dismiss older employees and disincentivise their hiring. The employment and activity rates of older individuals vary across Member States, suggesting an important role for policies and institutions in driving them.

If they lose employment, older people are likely to have more difficulties than prime-age workers with finding a new job. Although the unemployment rate of older people is below that of prime-age individuals, they are more likely to become long-term unemployed or inactive and struggle with re-employment. Gaps between the unit labour costs of older workers and their productivity, as well as age discrimination in hiring, contribute to this challenge. Upon losing their job, older individuals are more likely to leave the labour force or enter disability or social welfare schemes.

⁽²⁰²⁾ OECD (2019).

⁽²⁰³⁾ Halme (2022).

⁽²⁰⁴⁾ OECD (2023a).

⁽²⁰⁵⁾ Butrica and Mudrazija (2022).

⁽²⁰⁶⁾ Bloemen (2022).

⁽²⁰⁷⁾ This recommendation (Council of the European Union, 2012) and the related European inventory are key to helping Member States put in place national arrangements for the validation of the knowledge, skills and competences acquired outside formal education and training.

Older people are still under-represented in the labour market, especially those with lower education and with disabilities, as well as older women and foreign-born older people. Gender gaps in activity and employment remain pronounced and have led to the formation of a significant gender pension gap. Older adults are also more likely to suffer from health problems that may hinder their participation in the labour market, but they rarely benefit from reasonable accommodations at work. Other barriers to the labour force participation of older individuals include family care obligations and also workplace-related factors and institutional barriers, such as the lack of flexible or part-time work opportunities or changing skills requirements. In addition, older people who were born outside the EU are somewhat more likely, on average, to be inactive than people aged 55 to 64.

Older people complete fewer hours of education and training than younger people but work in jobs that are better matched to their skills and cognitive abilities. Although training participation rates have increased across the EU, older individuals in some Member States complete fewer training hours. Nevertheless, older workers are better matched to their jobs than their younger counterparts. They are more likely to work in less dynamic workplaces, and this allows them to rely more on pre-existing knowledge and could partly explain why they report less need for skills development. The digital skills levels of older adults are lower than those of younger adults and depend strongly on their educational levels. Promoting digital skills training among older people might be particularly desirable, as such skills have become necessary not only for job tasks but also for accessing education and training.

Projections show that by 2030 there will be an additional 8.8 million economically active older people between the ages of 55 and 68 in the EU. Pension reforms are expected to be the main driver of the anticipated growth in active older people, but generational shifts will also contribute, primarily due to the ageing of more active and better-educated younger cohorts of women. Despite these positive trends, projections also show that women who have been outside the labour market for a major part of their lives, often due to informal caring responsibilities, and older individuals affected by an illness or disability will still represent a large share of the population of inactive non-retired older people by 2030. Therefore, more targeted activation policies will be essential to activate these subgroups, while taking into account health conditions that can limit the scope for further labour market activity. Furthermore, policies that improve the labour market integration of women in general and support them in reconciling their career and motherhood would contribute significantly to higher employment rates, including among older women.

Incentives to work implemented by changes to retirement systems, tailored working conditions and effective collective bargaining can increase the labour force participation and employment of older individuals. Reforms such as fair incentives for longer working lives and a greater flexibility for combining work and retirement could contribute to an increase in the activity and employment rates of older people. These reforms should take into account gender, disability, and health, as well as the degree of job strain in certain occupations. Furthermore, flexible work arrangements and reasonable accommodations at work can improve working conditions for older workers. This could, in turn, encourage them to remain in the labour force and promote the employment of people with disabilities who are willing to work. Collective bargaining can also benefit older people, including by improving their working conditions and introducing age-based protection against dismissal.

Tailored training participation and other employment policies can also effectively promote improvements in the labour market outcomes of older people. Given their needs, older individuals could benefit from short, modular, accessible, inclusive and flexible courses. Participation in training can be effectively promoted using direct financial grants or vouchers, or tools such as individual learning accounts. Hiring based on skills and past experiences can enhance the labour force participation of older people as well. Moreover, the enforcement of anti-discrimination policies and the Employment Equality Directive can increase the hiring of older workers, forcing companies to overcome age-related prejudices. Finally, long-term policies that improve the employability and labour market attachment of younger cohorts can also contribute to preventing future inactivity at older age.

REFERENCES

- Albanese, A. and Cockx, B. (2015), *Permanent in te Cost Subsidies for Older Adults: An effective tool for increasing working time and postponing early retirement?*, Working Paper No 5301, Cesifo, Munich, <http://dx.doi.org/10.2139/ssrn.2598003>.
- Albinowski, M. (2024), 'Part-time employment opportunities and labour supply of older workers', *Journal of the Economics of Ageing*, Vol. 28, 100504, <https://doi.org/10.1016/j.jeoa.2024.100504>.
- Allen, S. G. (2019), *Demand for Older Adults: What do economists think? What are firms doing?*, Working Paper No 26597, National Bureau of Economic Research, Cambridge, MA, <https://www.nber.org/papers/w26597>.
- Ayalon, L. and Tesch-Römer, C. (2017), 'Introduction to the section: Ageism – Concept and origins', in: *Contemporary Perspectives on Ageism*, Springer Nature, Cham, pp. 1–10, <https://link.springer.com/book/10.1007/978-3-319-73820-8>.
- Bingley, P., Datta Gupta, N., Kallestrup-Lamb, M. and Pedersen, P. J. (2021), 'Labor force exit in Denmark, 1980–2016: Impact from changes in incentives', in: Börsch-Supan, A. and Coile, C. C. (eds), *Social Security Programs and Retirement around the World: Reforms and retirement incentives*, University of Chicago Press, pp. 109–131.
- Bloemen, H. (2022), 'Job search requirements for older unemployed adults', *IZA World of Labor*, online article, <https://wol.iza.org/articles/job-search-requirements-for-older-unemployed-adults/long>.
- Boockmann, B., Zwick, T., Ammermüller, A. and Maier, M. (2012), 'Do hiring subsidies reduce unemployment among older adults? Evidence from natural experiments', *Journal of the European Economic Association*, Vol. 10, No 4, pp. 735–764, <https://doi.org/10.1111/j.1542-4774.2012.01070.x>.
- Boockmann, B. (2015), 'The effects of wage subsidies for older adults', *IZA World of Labor*, online article, <https://wol.iza.org/articles/effects-of-wage-subsidies-for-older-adults/long>.
- Bodnár, K. and Nerlich, C. (2020), 'Drivers of rising labour force participation – The role of pension reforms', *ECB Economic Bulletin*, No 5/2020, https://www.ecb.europa.eu/press/economic-bulletin/articles/2020/html/ecb.ebart202005_02~986ead40e8.en.html.
- Börsch-Supan, A. and Coile C. C. (eds) (2021), *Social Security Programs and Retirement around the World: Reforms and retirement incentives*, University of Chicago Press.
- Butrica, B. A. and Mudrazija, S. (2022), *Skills-based Hiring and Older Adults*, Urban Institute, Washington, DC, <https://www.urban.org/sites/default/files/2022-03/Skills-Based%20Hiring%20and%20Older%20Adults.pdf>.
- Carlsson, M. and Eriksson, S. (2019), 'Age discrimination in hiring decisions: Evidence from a field experiment in the labor market', *Labour Economics*, Vol. 59, pp. 173–183, <https://doi.org/10.1016/j.labeco.2019.03.002>.
- Cedefop (2023), *European Guidelines for Validating Non-formal and Informal Learning*, Publications Office of the European Union, Luxembourg, <https://data.europa.eu/doi/10.2801/389827>.

Chen, A. and Munnell, A. H. (2020), ‘Can older workers work from home?’, Issue in Brief No 20-9, Center for Retirement Research, Chestnut Hill, MA, https://crr.bc.edu/wp-content/uploads/2020/06/IB_20-9.pdf.

Council Decision (EU) 2022/2481 of 14 December 2022 establishing the digital decade policy programme 2030 (OJ L 323, 19.12.2022, p. 4), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022D2481>.

Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of adults at work (OJ L 183, 29.6.1989, p. 1), <https://eur-lex.europa.eu/eli/dir/1989/391/oj>.

Council Directive 2000/78/EC of 27 November 2000 establishing a general framework for equal treatment in employment and occupation (OJ L 303, 2.12.2000, p. 16), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32000L0078>.

Council of the European Union (2012), Council Recommendation 2012/C 398/01 of 20 December 2012 on the validation of non-formal and informal learning (OJ C 398, 22.12.2012, p. 1), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.C_.2012.398.01.0001.01.ENG&toc=OJ%3AC%3A2012%3A398%3AFULL.

Council of the European Union (2016), Council Recommendation 2016/C 67/01 of 15 February 2016 on the integration of the long-term unemployed into the labour market (OJ C 67, 20.02.2016, p. 1), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32016H0220%2801%29>.

Council of the European Union (2022a), Council Recommendation 2022/C 243/02 of 16 June 2022 on a European approach to micro-credentials for lifelong learning and employability (OJ C 243, 27.6.2022, p. 10), [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022H0627\(02\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022H0627(02)).

Council of the European Union (2022b), Council Recommendation 2022/C 243/03 of 16 June 2022 on individual learning accounts (OJ C 243, 27.6.2022, p. 26), [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022H0627\(03\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022H0627(03)).

Council of the European Union (2022c), Council Recommendation 2022/C 476/01 of 8 December 2022 on access to affordable high-quality long-term care (OJ C 476, 15.12.2022, p. 1), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.C_.2022.476.01.0001.01.ENG.

Council of the European Union (2022d), Council Recommendation 2022/C 484/01 of 8 December 2022 on early childhood education and care: The Barcelona targets for 2030 (OJ C 484, 20.12.2022, p. 1), [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022H1220\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32022H1220(01)).

Dauth, C. and Toomet, O. (2016), ‘On government-subsidized training programs for older adults’, *Labour*, Vol. 30, No 4, pp. 371–392, <https://doi.org/10.1111/labr.12082>.

De Vos, K., Kapteyn, A. and Kalwij, A. (2021), ‘Social security programs and employment at older ages in the Netherlands’, in: Börsch-Supan, A. and Coile C. C. (eds), *Social Security Programs and Retirement around the World: Reforms and retirement incentives*, University of Chicago Press, pp. 297–316.

Desjardins, R. and Warnke, A. (2012). *Ageing and Skills: A Review and Analysis of Skill Gain and Skill Loss Over the Lifespan and Over Time*, Education Working Paper No. 72, OECD, Paris, <https://doi.org/10.1787/5k9csvgw87ckh-en>.

Eiffe, F. F., Muller, J. and Weber, T. (2024), *Keeping Older Workers Engaged: Policies, practices and mechanisms*, Working Paper No WPEF24030, Eurofound, Dublin, <https://www.eurofound.europa.eu/sites/default/files/2024-02/wpef24030.pdf>.

Eurofound (2017), *Working Conditions of Workers of Different Ages – European Working Conditions Survey 2015*, Publications Office of the European Union, Luxembourg, <https://www.eurofound.europa.eu/system/files/2018-02/ef1747en.pdf>.

Eurofound (2021), *Working Conditions and Sustainable Work: An analysis using the job quality framework*, Publications Office of the European Union, Luxembourg, <https://www.eurofound.europa.eu/system/files/2021-02/ef20021en.pdf>.

European Commission (2021a), Commission communication – Union of equality: Strategy for the rights of persons with disabilities 2021–2030 (COM(2021) 101 final), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52021DC0101>.

European Commission (2021b), Commission communication – The European Pillar of Social Rights action plan (COM(2021) 102 final), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2021:102:FIN>.

European Commission (2023a), ‘The impact of demographic change – In a changing environment’, Commission Staff Working Document (SWD(2023) 21 final), Brussels, https://commission.europa.eu/system/files/2023-01/the_impact_of_demographic_change_in_a_changing_environment_2023.PDF.

European Commission (2023b), *Discrimination in the European Union*, Special Eurobarometer 535, <https://europa.eu/eurobarometer/surveys/detail/2972>.

European Commission (2023c), ‘Demographic change in Europe: a toolbox for action’ (COM(2023) 577 final), Brussels, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2023:577:FIN>

European Commission (2024), ‘Communication on Labour and skills shortages in the EU: an action plan’ (COM(2024) 131 final), Brussels, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52024DC0131>.

European Commission: Directorate-General for Economic and Financial Affairs (2024), *2024 Ageing Report – Economic and budgetary projections for the EU Member States (2022–2070)*, Publications Office of the European Union, Luxembourg, <https://data.europa.eu/doi/10.2765/022983>.

European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2021), *Union of Equality – Strategy for the rights of persons with disabilities 2021–2030*, Publications Office of the European Union, Luxembourg, <https://op.europa.eu/en/publication-detail/-/publication/3e1e2228-7c97-11eb-9ac9-01aa75ed71a1/language-en>.

European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2022), *The employment of persons with disabilities*, Publications Office of the European Union, Luxembourg, EDE2022-Statistical Summary report on Employment_FINAL (6).pdf.

European Commission: Directorate-General for Employment, Social Affairs and Inclusion (2024), *2024 Pension Adequacy Report – Current and future income adequacy in old age in the EU*, Vol. 1, Publications Office of the European Union, Luxembourg, <https://data.europa.eu/doi/10.2767/909323>.

Frimmel, W., Horvath, T., Schnalzenberger, M. and Winter-Ebmer, R. (2015), *Seniority Wages and the Role of Firms in Retirement*, IZA Discussion Paper No. 9192, Institute of Labour Economics, Bonn, <https://hdl.handle.net/10419/114065>.

Geppert, C., Guillemette, Y., Morgavi, H. and Turner, D. (2019), *Labour Supply of Older People in Advanced Economies: The impact of changes to statutory retirement ages*, Economics Department Working Paper No 1554, OECD, Paris, <https://doi.org/10.1787/b9f8d292-en>.

Halme, J. (ed.) (2022), *Policy Recommendations for a Longer Working Life*, Baltic Sea Labour Forum for Sustainable Working Life, Stockholm, https://cbss.org/wp-content/uploads/2022/08/bslf-swl-policy-recommendations-longer-working-life_220829-1.pdf.

Harris, K., Krygsmann, S., Waschenko, J. and Rudman, D. L. (2017), ‘Ageism and the older worker: A scoping review’, *The Gerontologist*, Vol. 58, No 2, pp. 1–14, <https://doi.org/10.1093/geront/gnw194>.

Huttunen, K., Pirttilä, J. and Uusitalo, R. (2013), ‘The employment effects of low-wage subsidies’, *Journal of Public Economics*, Vol. 97, pp. 49–60, <https://doi.org/10.1016/j.jpubeco.2012.09.007>.

International Labour Organization (1980), Older workers recommendation, No 162, https://normlex.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_INSTRUMENT_ID:312500#:~:text=Each%20Member%20should%2C%20within%20the,with%20regard%20to%20older%20adults.

International Labour Organization (2019), *Supporting Longer Working Lives: Multistage approaches for decent and productive work*, Background Paper, Geneva, <https://www.ilo.org/media/407921/download>.

Konle-Seidl, R. (2018), ‘Retention and reintegration of older adults into the labour market: What works best?’, in: Hohnerlein, E., Hennion, S. and Kaufmann, O. (eds), *Employment Biographies and Social Protection in Europe*, Springer, Berlin and Heidelberg, https://doi.org/10.1007/978-3-662-56033-4_35.

Levy Yeyati, E., Montané, M. and Sartorio, L. (2019), *What Works for Active Labor Market Policies?*, CID Faculty Working Paper No 358, Harvard University Growth Lab, Cambridge, MA, <http://www.tinyurl.com/2ygy68xa>.

Mandl, I., Patrini, V., Jalava, J., Lantto, E. and Muraille, M. (2018), *State initiatives supporting the labour market integration of older adults*, Eurofound, Dublin, <https://www.eurofound.europa.eu/en/publications/eurofound-paper/2018/state-initiatives-supporting-labour-market-integration-older>.

Martin, J. P. (2018), *Live Longer, Work Longer: The changing nature of the labour market for older adults in OECD countries*, IZA Discussion Paper No. 11510, Institute of Labour Economics, Bonn, <https://repec.iza.org/dp11510.pdf>.

Müller, N. and Behringer, F. (2012), *Subsidies and levies as policy instruments to encourage employer-provided training*, Education Working Paper No. 80, OECD, Paris, <https://doi.org/10.1787/5k97b083v1vb-en>.

OECD (2019), *Working Better with Age*, OECD Publishing, Paris, <https://doi.org/10.1787/c4d4f66a-en>.

OECD (2020), *Promoting an Age-Inclusive Workforce: Living, learning and earning longer*, OECD Publishing, Paris, https://www.oecd.org/en/publications/promoting-an-age-inclusive-workforce_59752153-en.html.

OECD (2023a), *Retaining Talent at All Ages*, OECD Publishing, Paris, <https://doi.org/10.1787/00dbdd06-en>.

OECD (2023b), *Reporting Gender Pay Gaps in OECD Countries: Guidance for Pay Transparency Implementation, Monitoring and Reform*, Gender Equality at Work, OECD Publishing, Paris, <https://doi.org/10.1787/ea13aa68-en>.

Orfao, G. and Malo, M. Á. (2023), ‘Are active labour market policies effective for the older unemployed? A meta-evaluation’, *Ageing & Society*, Vol. 43, No 7, pp. 1617–1637, <https://doi.org/10.1017/S0144686X21001288>.

Palme, M. and Laun, L. (2021), ‘Social security reforms and the changing retirement behavior in Sweden’, in: Börsch-Supan, A. and Coile, C. C. (eds), *Social Security Programs and Retirement around the World: Reforms and retirement incentives*, University of Chicago Press.

Picchio, M. (2021), ‘Is training effective for older adults?’, *IZA World of Labor*, online article, <https://wol.iza.org/articles/is-training-effective-for-older-workers/long>.

Renkema, A. (2006), ‘Individual learning accounts: A strategy for lifelong learning?’ *Journal of Workplace Learning*, Vol. 18, No 6, pp. 384–394, <https://doi.org/10.1108/13665620610682107>.

Van Borm, H., Burn, I. and Baert, S. (2021), ‘What does a job candidate’s age signal to employers?’, *Labour Economics*, Vol. 71, 102003, <https://doi.org/10.1016/j.labeco.2021.102003>.

Vandenbergh, V. (2022), ‘Working beyond 50’, in: Zimmermann, K. F. (ed.), *Handbook of Labor, Human Resources and Population Economics*, Springer Nature, Cham, pp. 1–23, https://perso.uclouvain.be/vincent.vandenbergh/Papers/Working_Beyond_50_Handbook.pdf.

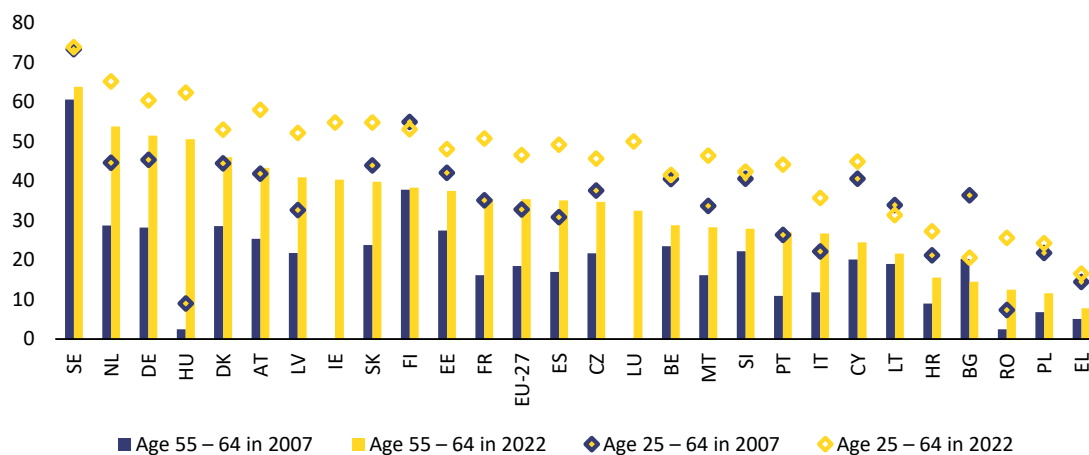
Vodopivec, M., Finn, D., Laporšek, S., Vodopivec, M. and Cvörnjek, N. (2019), ‘Increasing employment of older adults: Addressing labour market obstacles’, *Journal of Population Ageing*, Vol. 12, pp. 273–298, <https://link.springer.com/article/10.1007/s12062-018-9236-4>.

Vooren, M., Haelermans, C., Groot, W. and Maassen van den Brink, H. (2019), ‘The effectiveness of active labor market policies: A meta-analysis’, *Journal of Economic Surveys*, Vol. 33, No 1, pp. 125–149, <https://doi.org/10.1111/joes.12269>.

Waddington, L. (2023), *Striving for an Inclusive Labour Market in Europe: Positive actions and reasonable accommodation to facilitate hiring and employment of persons with disabilities involving employers and employer initiatives*, European Commission: Directorate-General for Employment, Social Affairs and Inclusion, Brussels, <https://infoeuropa.mne.gov.pt/Nyron/Library/Catalog//winlibimg.aspx?doc=55350&img=11403>.

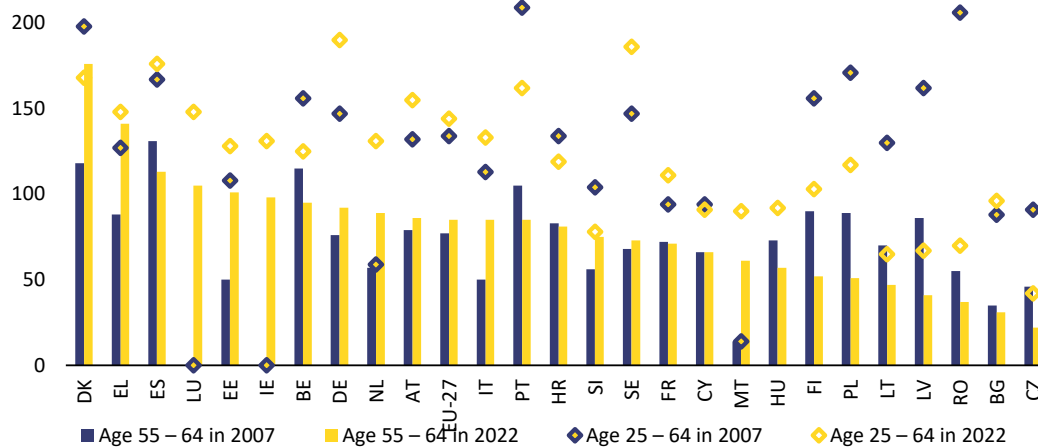
ANNEX 3.1: SELECTED GRAPHS

Graph 3.16: Education and training participation rates of working-age and older people in 2007 and 2022 (%)



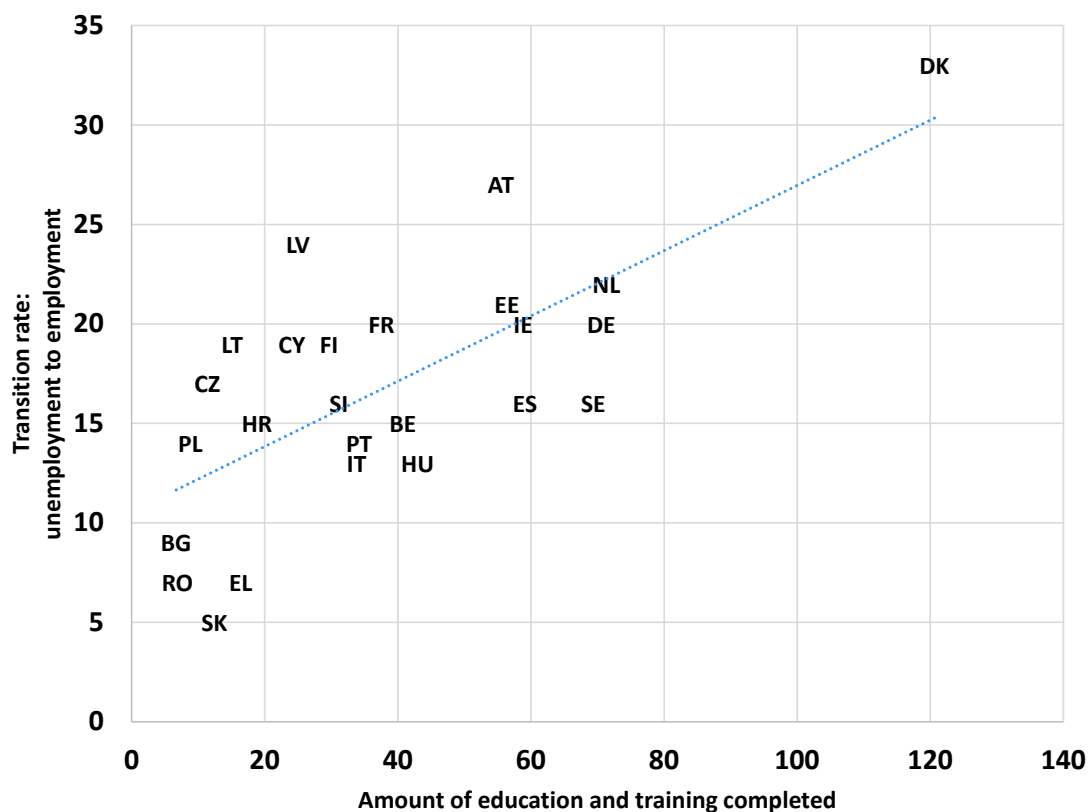
Note: Education and training participation rates reflect the share of individuals who report having participated in either formal education (usually leading to a recognised qualification) or non-formal training (such as workshops or short courses) over the past 12 months.
Source: Eurostat, Adult Education Survey.

Graph 3.17: Average instruction hours of participants in education and training – working-age and older people in 2007 and 2022



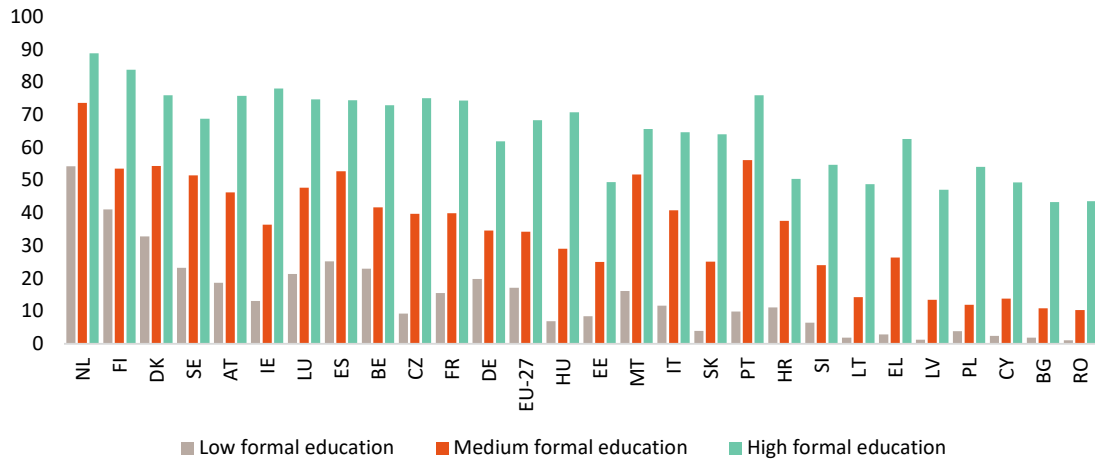
Note: Average instruction hours represent the mean number of hours of education and training completed over the past 12 months per participant.
Source: Eurostat, Adult Education Survey.

Graph 3.18: Amount of education and training completed by individuals aged 55 to 64 and transition rates from unemployment to employment



Note: The amount of education and training is the product of the participation rate index and an average instruction hours index for the group aged 55 to 64. Baseline: ages 25 to 64 in the EU in 2022 = 100. The transition rate is the annual average of quarterly shares of a transition from unemployment to employment for the group aged 55 to 74 in 2023, expressed as a percentage of the unemployed in the initial quarter. The use of non-identical age groups is due to data availability. Sources: Eurostat, Adult Education Survey and Labour Force Survey.

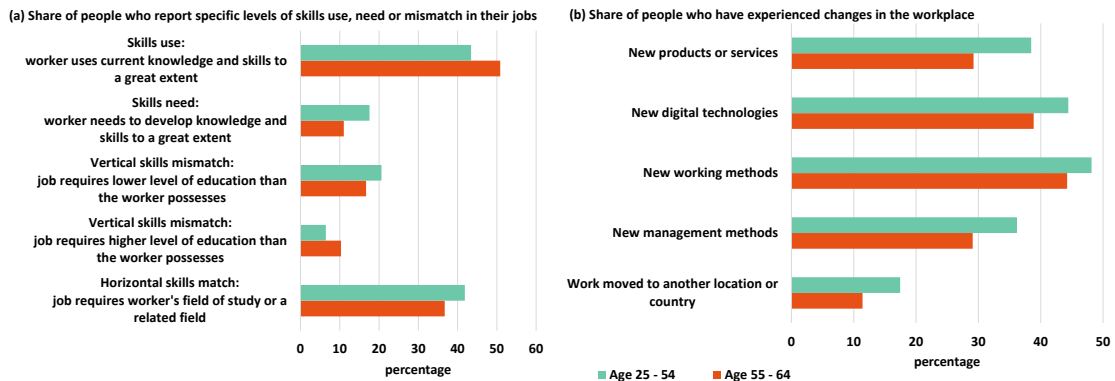
Graph 3.19: Digital skills of older people in 2023: share of older people (aged 55 to 74) with at least basic digital skills, by education level



Note: The digital skills measure is based on a composite indicator that covers selected activities related to internet or software use in five specific areas: information and data literacy, communication and collaboration, digital content creation, safety, and problem solving. Low formal education refers to levels of International Standard Classification of Education (ISCED) 0 (less than primary education), ISCED 1 (primary education) and ISCED 2 (lower secondary education). Medium formal education refers to ISCED 3 (upper secondary education) and ISCED 4 (post-secondary non-tertiary education). High formal education refers to ISCED 5 (short-cycle tertiary education), ISCED 6 (bachelor's or equivalent level), ISCED 7 (master's or equivalent level) and ISCED 8 (doctoral or equivalent level).

Source: Eurostat, Digital Skills Indicator.

Graph 3.20: Skills mismatches and changes in the workplace in 2023



Note: (a) Measures of vertical skills mismatch are based on a regrouping of ISCED categories into three levels (low, medium and high). (b) Respondents were asked to answer the following question: 'In the last 12 months / since you started your main job, did any of the following changes take place in your workplace?'

Source: Cedefop, European Skills and Jobs Survey.

Table 3.4: **Statutory retirement ages across Member States in 2022 by gender**

Member State	Men	Women	Member State	Men	Women
AT	65	60	IE	66	66
BE	65	65	IT*	67	67
BG	64.4	61.8	LT	64.3	63.7
CY*	65	65	LU	65	65
CZ	63.9	62.2	LV	64.3	64.3
DE	65.9	65.9	MT	63	63
DK*	67	67	NL*	66.6	66.6
EE*	64.2	64.2	PL	65	60
EL*	67	67	PT*	66.6	66.6
ES	66.2	66.2	RO	65	61.8
FI*	64.5	64.5	SE*	65	65
FR	67	67	SI	65	65
HR	65	63	SK*	62.8	62
HU	65	65			

Note: Countries where the statutory retirement age is legislated to increase in line with life expectancy are marked with an "*". Reported retirement ages are calculated based on life expectancy in the Eurostat population projections.
Source: European Commission: Directorate-General for Economic and Financial Affairs (2024).

ANNEX 3.2: MULTISTAGE RETIREMENT PROJECTION MODEL

This annex describes the model used to estimate the employment potential of older people and expected structural changes in the composition of the population of inactive older people. These estimates include dynamic country-specific projections of labour market activity and inactivity that consider current trends and country-specific socioeconomic determinants. The model considers four main factors:

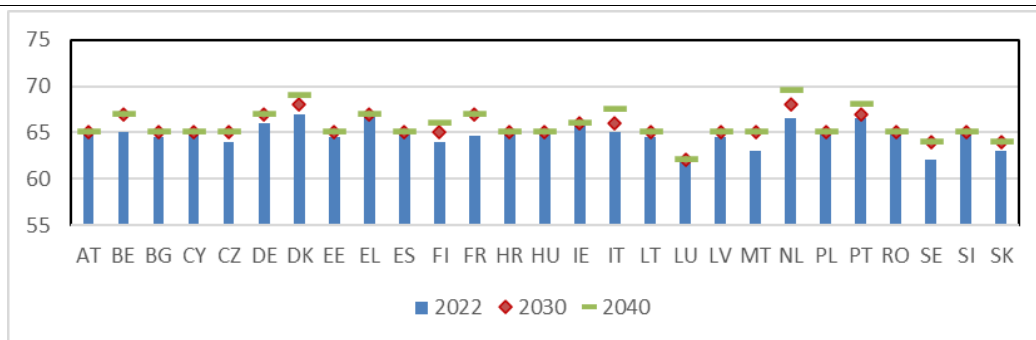
- (1) demographic change,
- (2) the current pension reforms with forward-looking effects,
- (3) the changing educational, sectoral and socioeconomic demographic structure,
- (4) inactive subgroup trends.

In contrast to the Member-State-specific models of retirement used in the *2024 Ageing Report* ⁽²⁰⁸⁾, the projections presented hereafter are based on a single-model specification calibrated for each Member State separately to replicate the retired and non-retired distributions from the Labour Force Survey (LFS) microdata and further extrapolate the subgroup inactivity trends to get projections of both the size and the composition of the inactive older population. The model used to project the demographic development of retired and non-retired people uses 2022 as the benchmark year and produces projections for 2030 and 2040. It is a multistage model for projecting future retirement patterns that also enables a demographic analysis of the non-retired population.

In the first stage, the future retirement age is determined from publicly available data and OECD pension reports for the 2022 baseline and projections for 2030 and 2040 based on the already adopted legal changes ⁽²⁰⁹⁾. Graph 3.21 shows the current and future retirement ages for the Member States.

In the second stage, the Eurostat baseline demographic projection is calibrated for each country, age and gender for 2022, 2030 and 2040, merged with the 2022 LFS microdata and integrated with the compiled data on future retirement ages from the first stage.

Graph 3.21: Future retirement age changes in Member States



Sources: OECD and publicly available data.

In the third stage, the LFS sample from 2022 is projected to 2030 and 2040 by assuming the age development of the current educational and occupational structure, taking into account the structural

⁽²⁰⁸⁾ European Commission: Directorate-General for Economic and Financial Affairs (2024).

⁽²⁰⁹⁾ January 2024 is taken as the benchmark for the adopted pension legislation, and later changes are not accounted for.

change associated with ageing. In this phase, the changed educational and occupational structure of the older individuals in 2030 and 2040 is recorded in comparison with 2022. The LFS weights are decomposed and reweighted based on the projected demographic shares for each country, gender and age in order to achieve full consistency of the overall weighted results with the Eurostat baseline projections for 2030 and 2040 for each country, gender and age.

In the fourth phase, the logistic model with weights from the LFS is used to assess retirement behaviour separately for each country based on socioeconomic characteristics and the distance to the statutory retirement age. The following model is used for each country to assess the probability of being retired or not:

$$\text{logit}(\text{retired}) = \beta_0 + \beta_1 * \text{MAIN} + \beta_2 * \text{MAIN}_1 + \beta_3 * \text{MAIN}_2 + \beta_4 * \text{MAIN}_3 + \beta_5 * \text{MAIN}_4 + \beta_6 * \text{MAIN}_5 + \beta_7 * \text{MAIN1} + \beta_8 * \text{MAIN2} + \beta_9 * \text{MAIN3} + \beta_{10} * \text{MAIN4} + \beta_{11} * \text{MAIN5} + \beta_{12} * \text{Female} + \beta_{13} * \text{i.isc} + \beta_{14} * \text{i.NACE} + \beta_{15} * \text{yoe}$$

where ‘MAIN’ indicates the difference between individual age and retirement age; ‘MAIN_X’ are dummies for ‘MAIN’ between 5 and –5 to better capture transition and various early retirement patterns for each country; ‘Female’, ‘isco’ and ‘NACE’ are dummies for women, occupations and sectors; and ‘yoe’ represents years of education. The cut-off rate that determines retirement and non-retirement based on this model is dynamically optimised by an algorithm that guarantees the best fit of the model prediction to retirement behaviour in 2022 by each age and gender with additional robustness tests. This result is then projected onto the demographic projection data and the retirement age data for 2030 and 2040. The caveat of this type of specification is that it does not consider all the country-specific pension reform effects that go beyond the gender-specific changes in the pension age or required years of contribution, which contribute to the expected change in effective retirement age. Therefore, country-specific pension reform effects that go beyond these main major adjustments, such as changes to early retirement schemes or occupation-specific changes to retirement rules, remain unaccounted for.

The model of retirement dynamics is complemented by the projection of inactive subgroup trend analysis. The activity trends within highly heterogeneous groups are significantly influenced by a variety of factors, including targeted activation policies, economic incentives and changes in labour demand. However, unlike the modelling of retirement decisions – which can reasonably be captured by institutional, demographic and individual characteristics – the prediction of inactive subgroups based solely on these characteristics is implausible. This is because the individual idiosyncrasies leading to inactivity are far more pronounced, rendering models based directly on microdata and individual characteristics unreliable. Therefore, the model chosen for the projection of future inactivity and its composition extends the trends observed over the past 10 years in the inactive subgroups into the future. Simple linear ordinary least squares regression is used to estimate the trends for each subgroup. LFS microdata are used to decompose and weigh the subgroups of inactive older people by the following variables: country, age (in groups: 55 to 59, 60 to 64, 65 to 68) and gender. Trends for both the retired and non-retired subgroups are assessed. For each cohort in the non-retired segment, five subgroups are analysed that, collectively, encompass all inactive individuals within that cohort:

1. inactive individuals with disabilities;
2. individuals without disabilities who have never entered the labour market;
3. individuals without disabilities who have been inactive for over 10 years;
4. individuals without disabilities who have been inactive for 1 to 10 years;
5. individuals without disabilities who have been inactive for less than 1 year.

Testing more detailed decompositions – by adding additional variables such as education or occupational characteristics, or by selecting more granular demographic subgroups – leads to issues with sample size and reduces the stability of the time trend, particularly in smaller Member States.

Appendix: Statistical annex

Belgium	2019	2020	2021	2022	2023	2022-2023
1 - Population (LFS, total, 1000 pers.)	11489	11539	11586	11680	11760	0.7 %
2 - Population (LFS, working age:15-64, 1000 pers.)	7307	7326	7345	7396	7441	0.6 %
(% of total population)	63.6	63.5	63.4	63.3	63.3	0.0 pps
3 - Labour force (15-64, 1000 pers.)	5044	5022	5118	5214	5247	0.6 %
<i>Male</i>	2681	2670	2718	2753	2775	0.8 %
<i>Female</i>	2362	2352	2400	2460	2473	0.5 %
4 - Activity rate (% of population 15-64)	69.0	68.6	69.7	70.5	70.5	0.0 pps
Young (15-24)	31.0	28.4	30.3	31.1	31.6	0.5 pps
Prime age (25-54)	84.8	84.5	85.4	86.1	85.7	-0.3 pps
Older (55-64)	54.3	55.6	57.1	58.8	59.9	1.1 pps
Nationals (15-64)	69.6	69.2	70.1	71.0	71.2	0.2 pps
Non-nationals (15-64)	65.0	63.7	66.7	67.4	66.5	-0.9 pps
<i>Male</i>	73.1	72.6	73.7	74.2	74.4	0.1 pps
Young (15-24)	32.5	30.3	32.2	32.4	32.9	0.4 pps
Prime age (25-54)	89.3	88.7	89.7	90.2	90.3	0.1 pps
Older (55-64)	59.8	61.5	62.5	64.0	64.5	0.6 pps
<i>Female</i>	64.9	64.5	65.7	66.8	66.7	-0.1 pps
Young (15-24)	29.4	26.5	28.2	29.7	30.2	0.6 pps
Prime age (25-54)	80.3	80.3	81.1	81.9	81.2	-0.8 pps
Older (55-64)	48.9	49.8	51.8	53.7	55.2	1.5 pps
5 - Employment rate (% of population 15-64)	65.3	64.7	65.3	66.5	66.6	0.0 pps
Young (15-24)	26.6	24.1	24.8	26.0	26.5	0.5 pps
Prime age (25-54)	80.8	80.3	80.7	81.8	81.5	-0.3 pps
Older (55-64)	52.1	53.3	54.5	56.6	57.8	1.1 pps
Low-skilled (15-64)	36.0	34.8	34.0	35.1	35.1	0.0 pps
Medium-skilled (15-64)	67.6	65.9	64.4	65.0	65.5	0.5 pps
High-skilled (15-64)	83.8	83.5	84.0	85.0	85.7	0.8 pps
Nationals (15-64)	66.3	65.8	66.2	67.4	67.6	0.2 pps
Non-nationals (15-64)	58.2	57.1	59.2	61.0	60.0	-1.0 pps
<i>Male</i>	68.9	68.4	68.7	69.8	69.9	0.1 pps
Young (15-24)	27.3	25.6	25.8	26.5	27.1	0.5 pps
Prime age (25-54)	84.7	84.2	84.6	85.6	85.4	-0.1 pps
Older (55-64)	57.3	58.7	59.3	61.5	62.2	0.7 pps
<i>Female</i>	61.7	61.0	61.8	63.2	63.3	0.0 pps
Young (15-24)	25.8	22.5	23.7	25.4	25.9	0.5 pps
Prime age (25-54)	76.8	76.4	76.9	78.1	77.5	-0.5 pps
Older (55-64)	47.0	48.0	49.6	51.8	53.4	1.6 pps
6 - Employed persons (15-64, 1000 pers.)	4770.7	4740.6	4794.7	4920.9	4954.1	0.7 %
7 - Employment growth (% , National accounts)	1.6	0.1	1.9	2.1	0.8	-1.3 pps
Employment growth (% , 15-64, LFS)	1.5	-0.6	1.1	2.6	0.7	-2.0 pps
<i>Male</i>	1.2	-0.4	0.8	2.1	0.7	-1.5 pps
<i>Female</i>	1.8	-0.9	1.5	3.2	0.7	-2.5 pps
8 - Self employed (15-64, % of total employment)	12.9	13.4	13.0	13.8	13.7	0.0 pps
<i>Male</i>	16.1	16.8	16.4	17.4	17.2	-0.2 pps
<i>Female</i>	9.2	9.4	9.2	9.8	9.9	0.1 pps
9 - Temporary employment (15-64, % of total employment)	10.8	10.1	10.3	9.7	9.3	-0.4 pps
<i>Male</i>	10.2	9.6	9.5	8.6	8.3	-0.3 pps
<i>Female</i>	11.5	10.7	11.1	10.8	10.4	-0.4 pps
10 - Part-time (15-64, % of total employment)	24.9	24.4	24.1	23.8	23.7	-0.1 pps
<i>Male</i>	10.5	10.5	10.4	10.8	10.7	-0.1 pps
<i>Female</i>	41.0	40.1	39.5	38.4	38.1	-0.3 pps
11 - Involuntary part-time (15-64, % of total employment)	1.4	1.1	5.2	4.4	4.2	-0.2 pps
12 - Unemployment rate (harmonised:15-74)	5.5	5.8	6.3	5.6	5.5	-0.1 pps
Young (15-24)	14.2	15.3	18.2	16.4	16.1	-0.3 pps
Prime age (25-49)	4.8	5.0	5.5	4.9	4.9	0.0 pps
Older (55-64)	4.1	4.2	4.6	3.7	3.5	-0.2 pps
Low-skilled (15-64)	12.2	12.3	14.7	13.4	13.4	0.0 pps
Medium-skilled (15-64)	5.3	5.8	7.0	6.4	6.3	-0.1 pps
High-skilled (15-64)	3.2	3.5	3.6	3.1	3.0	-0.1 pps
Nationals (15-64)	4.8	5.0	5.6	5.0	5.0	0.0 pps
Non-nationals (15-64)	10.3	10.4	11.2	9.5	9.8	0.3 pps
<i>Male</i>	5.9	6.0	6.6	5.8	6.0	0.2 pps
<i>Female</i>	5.0	5.5	5.9	5.3	5.1	-0.2 pps
13 - Long-term unemployment (% of total unemployment)	43.5	41.6	42.5	42.3	40.1	-2.2 pps
14 - Worked hours (full-time, average actual weekly hours)	39.3	38.4	37.8	37.4	37.3	-0.3 %
<i>Male</i>	41.1	39.9	39.2	39.1	39.0	-0.3 %
<i>Female</i>	37.5	36.9	36.2	35.8	36.1	0.8 %
15 - Sectoral employment growth (% change)						
Agriculture	0.7	1.0	1.2	-0.2	-3.0	-2.8 pps
Building and construction	1.1	1.7	3.4	1.8	1.0	-0.8 pps
Services	1.7	-0.7	2.4	2.6	0.6	-2.0 pps
Manufacturing industry	0.7	-1.1	0.3	1.4	-0.2	-1.6 pps
16 - Indicator board on wage developments (% change)						
Compensation per employee	2.0	-1.5	4.4	7.3	7.7	0.4 pps
Real compensation per employee based on GDP	0.2	-3.1	1.1	1.4	:	: pps
Labour cost index (compens. of employees plus taxes minus subs.)	2.0	1.6	1.2	6.1	8.3	2.2 pps
Labour cost index (wages and salaries, total)	2.6	1.5	1.2	6.0	8.6	2.6 pps
Labour productivity (GDP/person employed)	0.6	-5.4	4.9	0.9	0.6	-0.3 pps

Bulgaria		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	6976	6934	6878	6465	6443	-0.3 %
2	- Population (LFS, working age:15-64, 1000 pers.)	4474	4417	4383	4022	3993	-0.7 %
	(% of total population)	64.1	63.7	63.7	62.2	62.0	-0.3 pps
3	- Labour force (15-64, 1000 pers.)	3276	3190	3155	2965	2951	-0.5 %
	<i>Male</i>	1755	1714	1689	1572	1560	-0.8 %
	<i>Female</i>	1521	1477	1466	1393	1392	-0.1 %
4	- Activity rate (% of population 15-64)	73.2	72.2	72.0	73.7	73.9	0.2 pps
	Young (15-24)	23.9	21.9	20.0	21.7	21.4	-0.3 pps
	Prime age (25-54)	85.8	84.7	84.7	86.1	86.6	0.5 pps
	Older (55-64)	66.9	67.1	67.9	70.8	72.1	1.3 pps
	Nationals (15-64)	73.3	72.2	72.0	73.8	74.0	0.2 pps
	Non-nationals (15-64)	56.0	59.4	55.2	56.8	55.6	-1.2 pps
	<i>Male</i>	77.6	76.8	76.2	77.4	77.3	-0.1 pps
	Young (15-24)	27.6	25.3	24.2	25.5	24.3	-1.1 pps
	Prime age (25-54)	90.0	89.1	88.4	89.1	89.7	0.5 pps
	Older (55-64)	72.0	72.6	73.5	76.2	76.8	0.5 pps
	<i>Female</i>	68.7	67.6	67.7	70.0	70.4	0.5 pps
	Young (15-24)	20.0	18.2	15.5	17.7	18.2	0.5 pps
	Prime age (25-54)	81.4	80.1	80.7	82.9	83.4	0.5 pps
	Older (55-64)	62.2	62.0	62.7	65.7	67.7	2.0 pps
5	- Employment rate (% of population 15-64)	70.1	68.5	68.1	70.6	70.7	0.1 pps
	Young (15-24)	21.8	18.8	16.8	19.4	18.8	-0.6 pps
	Prime age (25-54)	82.3	80.5	80.4	82.6	83.0	0.4 pps
	Older (55-64)	64.4	64.2	64.8	68.3	69.5	1.2 pps
	Low-skilled (15-64)	38.4	35.2	34.0	36.9	36.3	-0.6 pps
	Medium-skilled (15-64)	74.6	72.7	71.5	73.5	72.9	-0.6 pps
	High-skilled (15-64)	88.5	87.6	88.7	89.8	90.2	0.4 pps
	Nationals (15-64)	70.1	68.5	68.2	70.7	70.7	0.0 pps
	Non-nationals (15-64)	56.0	0.0	55.2	51.9	54.3	2.5 pps
	<i>Male</i>	74.1	72.5	72.0	74.0	73.9	-0.2 pps
	Young (15-24)	25.0	21.7	20.3	22.7	21.2	-1.5 pps
	Prime age (25-54)	86.0	84.4	83.9	85.4	85.9	0.4 pps
	Older (55-64)	69.2	69.4	69.9	73.3	74.0	0.7 pps
	<i>Female</i>	66.0	64.3	64.2	67.2	67.4	0.3 pps
	Young (15-24)	18.4	15.7	13.1	15.9	16.1	0.3 pps
	Prime age (25-54)	78.3	76.4	76.7	79.6	79.9	0.3 pps
	Older (55-64)	59.9	59.4	60.1	63.6	65.3	1.7 pps
6	- Employed persons (15-64, 1000 pers.)	3136.3	3024.3	2986.7	2840.7	2821.7	-0.7 %
7	- Employment growth (% , National accounts)	0.3	-2.3	0.2	-0.3	1.0	1.3 pps
	Employment growth (% , 15-64, LFS)	2.2	-3.6	-1.2	-4.9	-0.7	4.2 pps
	<i>Male</i>	2.3	-3.3	-1.5	-5.8	-0.9	4.9 pps
	<i>Female</i>	2.0	-3.9	-1.0	-3.9	-0.4	3.5 pps
8	- Self employed (15-64, % of total employment)	9.9	10.1	10.1	10.4	10.3	0.0 pps
	<i>Male</i>	12.5	12.8	12.6	12.9	12.6	-0.3 pps
	<i>Female</i>	6.9	7.1	7.3	7.5	7.8	0.3 pps
9	- Temporary employment (15-64, % of total employment)	4.3	3.5	3.4	3.8	3.0	-0.8 pps
	<i>Male</i>	4.6	3.9	3.9	4.2	3.2	-1.0 pps
	<i>Female</i>	4.0	3.1	2.9	3.3	2.8	-0.5 pps
10	- Part-time (15-64, % of total employment)	1.9	1.8	1.6	1.6	1.4	-0.2 pps
	<i>Male</i>	1.7	1.6	1.3	1.4	1.3	-0.1 pps
	<i>Female</i>	2.1	2.1	1.8	1.7	1.5	-0.2 pps
11	- Involuntary part-time (15-64, % of total employment)	1.0	1.0	0.8	0.8	0.6	-0.2 pps
12	- Unemployment rate (harmonised:15-74)	5.2	6.1	5.3	4.2	4.3	0.1 pps
	Young (15-24)	8.9	14.2	15.8	10.6	12.1	1.5 pps
	Prime age (25-49)	4.1	4.9	5.0	4.1	4.2	0.1 pps
	Older (55-64)	3.9	4.3	4.5	3.5	3.6	0.1 pps
	Low-skilled (15-64)	13.2	14.2	16.3	12.8	13.1	0.3 pps
	Medium-skilled (15-64)	3.4	4.8	5.0	4.0	4.2	0.2 pps
	High-skilled (15-64)	1.9	2.5	2.0	1.6	1.9	0.3 pps
	Nationals (15-64)	4.3	5.2	5.3	4.2	4.4	0.2 pps
	Non-nationals (15-64)	0.0	0.0	0.0	0.0	0.0	0.0 pps
	<i>Male</i>	5.6	6.5	5.5	4.3	4.4	0.1 pps
	<i>Female</i>	4.8	5.7	5.0	3.9	4.2	0.3 pps
13	- Long-term unemployment (% of total unemployment)	57.1	45.3	49.5	53.8	52.0	-1.8 pps
14	- Worked hours (full-time, average actual weekly hours)	40.0	39.7	39.7	39.4	39.2	-0.5 %
	<i>Male</i>	40.2	39.9	39.9	39.6	39.3	-0.8 %
	<i>Female</i>	39.6	39.4	39.5	39.2	39.0	-0.5 %
15	- Sectoral employment growth (% change)						
	Agriculture	-4.4	-0.2	-6.1	-6.5	-1.1	5.4 pps
	Building and construction	6.0	-1.7	1.8	-2.5	1.8	4.3 pps
	Services	1.7	-3.9	1.3	2.2	1.3	-0.9 pps
	Manufacturing industry	-0.8	-4.8	0.9	-1.4	-1.4	0.0 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	6.9	7.2	11.3	14.2	13.3	-0.9 pps
	Real compensation per employee based on GDP	1.6	2.8	3.9	-1.7	.	. pps
	Labour cost index (compens. of employees plus taxes minus subs.)	11.3	7.5	7.1	16.1	14.5	-1.6 pps
	Labour cost index (wages and salaries, total)	11.1	7.5	7.7	16.3	14.9	-1.4 pps
	Labour productivity (GDP/person employed)	3.7	-1.7	7.5	4.3	0.9	-3.4 pps

Czechia		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	10550	10502	10501	10760	10878	1.1 %
2	- Population (LFS, working age:15-64, 1000 pers.)	6856	6838	6810	6653	6511	-2.1 %
	(% of total population)	65.0	65.1	64.8	61.8	59.9	-2.0 pps
3	- Labour force (15-64, 1000 pers.)	5259	5224	5216	5138	5023	-2.2 %
	<i>Male</i>	2914	2909	2898	2850	2809	-1.4 %
	<i>Female</i>	2345	2315	2318	2288	2214	-3.2 %
4	- Activity rate (% of population 15-64)	76.7	76.4	76.6	77.2	77.1	-0.1 pps
	Young (15-24)	29.7	27.3	27.0	27.6	27.8	0.2 pps
	Prime age (25-54)	89.1	88.7	88.7	89.2	90.0	0.8 pps
	Older (55-64)	68.0	69.6	71.6	74.4	75.6	1.2 pps
	Nationals (15-64)	76.5	76.2	76.4	77.0	76.9	-0.1 pps
	Non-nationals (15-64)	83.9	83.0	82.8	84.2	82.4	-1.8 pps
	<i>Male</i>	83.4	83.3	83.3	83.7	83.4	-0.3 pps
	Young (15-24)	33.4	32.9	31.8	31.7	31.7	0.1 pps
	Prime age (25-54)	95.9	95.8	95.8	96.3	96.4	0.1 pps
	Older (55-64)	76.2	76.5	78.1	80.5	80.5	0.0 pps
	<i>Female</i>	69.8	69.2	69.6	70.4	70.4	0.0 pps
	Young (15-24)	25.8	21.4	21.9	23.3	23.9	0.6 pps
	Prime age (25-54)	81.8	81.1	81.1	81.7	82.9	1.2 pps
	Older (55-64)	60.1	62.8	65.2	68.3	70.6	2.3 pps
5	- Employment rate (% of population 15-64)	75.1	74.4	74.4	75.5	75.1	-0.4 pps
	Young (15-24)	28.0	25.1	24.8	25.7	25.5	-0.3 pps
	Prime age (25-54)	87.4	86.5	86.3	87.4	87.9	0.5 pps
	Older (55-64)	66.7	68.2	69.9	72.9	74.0	1.0 pps
	Low-skilled (15-64)	28.1	27.6	25.7	25.6	25.9	0.4 pps
	Medium-skilled (15-64)	80.7	80.0	79.7	81.1	81.3	0.2 pps
	High-skilled (15-64)	84.9	83.9	84.8	86.2	86.5	0.2 pps
	Nationals (15-64)	75.0	74.2	74.2	75.3	74.9	-0.4 pps
	Non-nationals (15-64)	81.9	80.7	80.5	82.1	79.8	-2.3 pps
	<i>Male</i>	81.9	81.4	81.3	82.2	81.6	-0.6 pps
	Young (15-24)	31.6	30.5	29.4	29.8	29.2	-0.6 pps
	Prime age (25-54)	94.5	93.8	93.8	94.8	94.6	-0.2 pps
	Older (55-64)	74.7	75.2	76.5	79.2	78.9	-0.3 pps
	<i>Female</i>	68.1	67.1	67.1	68.5	68.2	-0.3 pps
	Young (15-24)	24.3	19.4	19.9	21.5	21.8	0.4 pps
	Prime age (25-54)	80.0	78.8	78.4	79.5	80.5	0.9 pps
	Older (55-64)	58.9	61.3	63.3	66.8	69.0	2.1 pps
6	- Employed persons (15-64, 1000 pers.)	5151.0	5086.9	5066.1	5021.7	4890.3	-2.6 %
7	- Employment growth (% , National accounts)	-0.1	-2.3	1.0	1.0	1.0	0.0 pps
	Employment growth (% , 15-64, LFS)	0.1	-1.2	-0.4	-0.9	-2.6	-1.7 pps
	<i>Male</i>	0.0	-0.7	-0.4	-1.1	-1.9	-0.8 pps
	<i>Female</i>	0.1	-1.9	-0.4	-0.6	-3.5	-2.9 pps
8	- Self employed (15-64, % of total employment)	15.7	15.8	15.1	15.1	15.8	0.7 pps
	<i>Male</i>	19.5	19.4	18.6	18.6	19.8	1.1 pps
	<i>Female</i>	11.1	11.2	10.6	10.7	10.7	0.1 pps
9	- Temporary employment (15-64, % of total employment)	7.8	7.0	6.5	6.1	7.0	0.9 pps
	<i>Male</i>	6.2	5.9	5.3	5.0	5.5	0.5 pps
	<i>Female</i>	9.6	8.2	7.9	7.5	8.8	1.3 pps
10	- Part-time (15-64, % of total employment)	6.3	5.7	5.7	6.0	6.9	0.9 pps
	<i>Male</i>	2.8	2.4	2.5	2.7	3.2	0.5 pps
	<i>Female</i>	10.6	9.9	9.6	10.2	11.6	1.4 pps
11	- Involuntary part-time (15-64, % of total employment)	0.4	0.3	1.0	1.1	1.2	0.1 pps
12	- Unemployment rate (harmonised:15-74)	2.0	2.6	2.8	2.2	2.6	0.4 pps
	Young (15-24)	5.6	8.0	8.2	6.8	8.3	1.5 pps
	Prime age (25-49)	1.8	2.4	2.6	2.0	2.3	0.3 pps
	Older (55-64)	2.0	2.0	2.4	2.0	2.2	0.2 pps
	Low-skilled (15-64)	10.9	10.7	13.2	13.0	13.0	0.0 pps
	Medium-skilled (15-64)	1.8	2.4	2.7	2.1	2.4	0.3 pps
	High-skilled (15-64)	1.0	1.5	1.4	0.9	1.4	0.5 pps
	Nationals (15-64)	2.0	2.6	2.9	2.3	2.6	0.3 pps
	Non-nationals (15-64)	2.5	2.8	2.8	2.5	3.2	0.7 pps
	<i>Male</i>	1.7	2.2	2.3	1.8	2.2	0.4 pps
	<i>Female</i>	2.4	3.0	3.4	2.8	3.1	0.3 pps
13	- Long-term unemployment (% of total unemployment)	30.0	22.0	27.6	27.8	29.2	1.4 pps
14	- Worked hours (full-time, average actual weekly hours)	40.2	38.9	39.3	38.8	39.0	0.5 %
	<i>Male</i>	41.1	39.6	40.0	39.6	39.8	0.5 %
	<i>Female</i>	38.7	37.8	38.2	37.5	37.7	0.5 %
15	- Sectoral employment growth (% change)						
	Agriculture	-4.4	-4.6	-0.7	4.8	0.4	-4.4 pps
	Building and construction	0.3	-2.0	2.8	1.8	2.6	0.8 pps
	Services	-0.2	-2.5	0.6	1.3	1.1	-0.1 pps
	Manufacturing industry	-0.9	-4.6	0.3	0.0	-0.2	-0.2 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	7.7	4.0	6.2	6.9	6.7	-0.2 pps
	Real compensation per employee based on GDP	3.2	-1.2	1.7	-2.4	.	pps
	Labour cost index (compens. of employees plus taxes minus subs.)	7.9	7.0	-0.8	3.8	8.6	4.8 pps
	Labour cost index (wages and salaries, total)	7.7	9.0	2.9	4.0	8.6	4.6 pps
	Labour productivity (GDP/person employed)	3.7	-3.1	3.0	1.8	-1.1	-2.9 pps

Denmark		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	5817	5830	5854	5906	5948	0.7 %
2	- Population (LFS, working age:15-64, 1000 pers.)	3704	3700	3702	3730	3763	0.9 %
	(% of total population)	63.7	63.5	63.2	63.2	63.3	0.1 pps
3	- Labour force (15-64, 1000 pers.)	2930	2921	2946	3000	3040	1.3 %
	<i>Male</i>	1534	1528	1543	1557	1578	1.3 %
	<i>Female</i>	1395	1393	1403	1443	1462	1.3 %
4	- Activity rate (% of population 15-64)	79.1	79.0	79.6	80.4	80.8	0.4 pps
	Young (15-24)	61.1	60.2	60.4	62.8	64.5	1.7 pps
	Prime age (25-54)	86.5	86.3	87.0	87.8	87.4	-0.4 pps
	Older (55-64)	73.8	74.6	75.3	75.1	76.5	1.4 pps
	Nationals (15-64)	79.8	79.5	79.9	80.5	80.9	0.5 pps
	Non-nationals (15-64)	71.6	74.0	76.2	80.1	79.3	-0.8 pps
	<i>Male</i>	82.0	81.8	82.6	82.7	83.1	0.4 pps
	Young (15-24)	60.5	60.1	60.9	62.7	63.4	0.7 pps
	Prime age (25-54)	90.1	89.7	90.5	90.2	90.2	0.0 pps
	Older (55-64)	78.4	79.1	79.7	79.4	80.6	1.2 pps
	<i>Female</i>	78.1	76.0	76.5	78.1	78.4	0.4 pps
	Young (15-24)	61.8	60.4	59.9	62.9	65.6	2.7 pps
	Prime age (25-54)	82.8	82.9	83.6	85.2	84.5	-0.7 pps
	Older (55-64)	69.3	70.1	70.9	70.9	72.4	1.5 pps
5	- Employment rate (% of population 15-64)	75.0	74.4	75.5	76.8	76.6	-0.2 pps
	Young (15-24)	55.0	53.2	53.9	56.1	57.0	0.9 pps
	Prime age (25-54)	82.6	82.1	83.4	84.6	83.5	-1.0 pps
	Older (55-64)	71.3	71.4	72.3	72.9	74.2	1.2 pps
	Low-skilled (15-64)	53.2	52.1	53.7	55.6	55.3	-0.2 pps
	Medium-skilled (15-64)	79.9	78.6	79.4	80.7	80.0	-0.8 pps
	High-skilled (15-64)	87.2	87.1	87.3	88.2	88.4	0.2 pps
	Nationals (15-64)	75.9	75.2	76.1	77.2	77.0	-0.1 pps
	Non-nationals (15-64)	65.1	66.6	69.4	72.7	71.4	-1.3 pps
	<i>Male</i>	78.0	77.3	78.4	79.0	78.9	-0.1 pps
	Young (15-24)	54.2	52.5	54.3	56.0	55.9	-0.1 pps
	Prime age (25-54)	86.3	85.8	86.7	87.0	86.4	-0.6 pps
	Older (55-64)	75.8	75.8	76.3	76.8	78.3	1.4 pps
	<i>Female</i>	72.0	71.4	72.5	74.5	74.2	-0.3 pps
	Young (15-24)	55.8	54.0	53.4	56.3	58.2	1.9 pps
	Prime age (25-54)	78.8	78.3	79.9	82.1	80.6	-1.5 pps
	Older (55-64)	66.9	67.1	68.2	69.0	70.1	1.0 pps
6	- Employed persons (15-64, 1000 pers.)	2779.1	2752.8	2794.3	2864.2	2881.3	0.6 %
7	- Employment growth (% , National accounts)	1.4	-1.1	2.3	4.0	1.3	-2.7 pps
	Employment growth (% , 15-64, LFS)	1.5	-0.9	1.5	2.5	0.6	-1.9 pps
	<i>Male</i>	1.6	-1.0	1.4	1.5	0.7	-0.8 pps
	<i>Female</i>	1.3	-0.9	1.7	3.6	0.4	-3.2 pps
8	- Self employed (15-64, % of total employment)	7.4	7.5	7.7	7.6	7.4	-0.1 pps
	<i>Male</i>	9.9	10.0	10.3	10.1	9.5	-0.6 pps
	<i>Female</i>	4.7	4.8	4.9	4.8	5.2	0.4 pps
9	- Temporary employment (15-64, % of total employment)	10.8	10.9	10.9	10.9	10.2	-0.7 pps
	<i>Male</i>	9.6	9.3	9.4	9.7	9.0	-0.7 pps
	<i>Female</i>	12.0	12.5	12.5	12.1	11.5	-0.6 pps
10	- Part-time (15-64, % of total employment)	24.2	23.4	23.9	24.2	25.2	1.0 pps
	<i>Male</i>	15.3	14.8	15.2	15.2	16.1	0.9 pps
	<i>Female</i>	33.9	32.9	33.5	33.8	35.2	1.4 pps
11	- Involuntary part-time (15-64, % of total employment)	2.6	2.7	2.2	1.5	1.7	0.2 pps
12	- Unemployment rate (harmonised:15-74)	5.0	5.6	5.1	4.5	5.1	0.6 pps
	Young (15-24)	10.1	11.6	10.8	10.6	11.5	0.9 pps
	Prime age (25-49)	4.5	4.9	4.2	3.6	4.4	0.8 pps
	Older (55-64)	3.4	4.2	4.0	2.9	3.1	0.2 pps
	Low-skilled (15-64)	8.7	9.7	8.7	8.0	9.1	1.1 pps
	Medium-skilled (15-64)	4.2	4.9	4.5	3.8	4.7	0.9 pps
	High-skilled (15-64)	4.2	4.7	4.1	3.6	3.9	0.3 pps
	Nationals (15-64)	4.8	5.4	4.8	4.1	4.8	0.7 pps
	Non-nationals (15-64)	9.1	9.9	8.9	9.2	9.9	0.7 pps
	<i>Male</i>	4.8	5.3	5.0	4.4	5.0	0.6 pps
	<i>Female</i>	5.3	6.0	5.2	4.5	5.3	0.8 pps
13	- Long-term unemployment (% of total unemployment)	16.9	16.7	20.0	11.4	10.8	-0.6 pps
14	- Worked hours (full-time, average actual weekly hours)	38.4	38.3	39.0	38.6	38.3	-0.8 %
	<i>Male</i>	39.5	39.1	39.9	39.5	39.0	-1.3 %
	<i>Female</i>	36.5	36.6	37.2	36.5	36.8	0.8 %
15	- Sectoral employment growth (% change)						
	Agriculture	-2.1	-0.3	-4.9	0.6	-0.7	-1.3 pps
	Building and construction	1.7	1.4	4.5	4.0	-0.1	-4.1 pps
	Services	1.9	-2.3	2.0	5.3	1.5	-3.8 pps
	Manufacturing industry	0.3	-2.0	2.2	4.5	1.4	-3.1 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	1.8	2.5	3.1	2.6	3.1	0.5 pps
	Real compensation per employee based on GDP	0.9	-0.5	0.3	-4.6	.	pps
	Labour cost index (compens. of employees plus taxes minus subs.)	2.1	0.9	2.5	2.7	2.9	0.2 pps
	Labour cost index (wages and salaries, total)	2.1	2.5	2.7	2.3	2.9	0.6 pps
	Labour productivity (GDP/person employed)	0.3	-0.7	5.0	-2.4	1.1	3.5 pps

Germany		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	83093	83161	83196	83798	84515	0.9 %
2	- Population (LFS, working age:15-64, 1000 pers.)	53545	53229	52968	53318	53577	0.5 %
	(% of total population)	64.4	64.0	63.7	63.6	63.4	-0.2 pps
3	- Labour force (15-64, 1000 pers.)	42427	41806	41583	42299	42709	1.0 %
	Male	22619	22241	22145	22465	22653	0.8 %
	Female	19809	19565	19437	19835	20056	1.1 %
4	- Activity rate (% of population 15-64)	79.2	78.5	78.5	79.3	79.7	0.4 pps
	Young (15-24)	51.4	51.8	52.0	53.5	54.0	0.5 pps
	Prime age (25-54)	88.0	87.3	87.2	87.7	87.8	0.1 pps
	Older (55-64)	74.7	74.0	74.1	75.3	76.4	1.1 pps
	Nationals (15-64)	80.6	79.9	80.1	81.0	81.7	0.7 pps
	Non-nationals (15-64)	71.6	70.6	69.6	70.9	70.4	-0.6 pps
	Male	83.5	82.5	82.5	83.3	83.6	0.2 pps
	Young (15-24)	54.2	53.7	54.8	56.2	56.5	0.3 pps
	Prime age (25-54)	92.7	91.8	91.4	92.1	92.2	0.1 pps
	Older (55-64)	79.5	78.1	78.6	79.5	80.3	0.8 pps
	Female	74.9	74.5	74.4	75.3	75.8	0.5 pps
	Young (15-24)	48.4	49.9	49.1	50.7	51.4	0.7 pps
	Prime age (25-54)	83.3	82.6	82.8	83.2	83.4	0.2 pps
	Older (55-64)	70.0	69.8	69.6	71.2	72.6	1.4 pps
5	- Employment rate (% of population 15-64)	76.7	75.4	75.6	76.8	77.2	0.4 pps
	Young (15-24)	48.5	48.1	48.4	50.3	50.8	0.5 pps
	Prime age (25-54)	85.4	84.0	84.2	85.1	85.2	0.1 pps
	Older (55-64)	72.7	71.7	71.8	73.3	74.6	1.3 pps
	Low-skilled (15-64)	49.4	49.4	50.8	54.0	54.6	0.6 pps
	Medium-skilled (15-64)	80.8	79.4	79.7	80.9	81.4	0.6 pps
	High-skilled (15-64)	89.0	87.0	87.9	88.7	88.3	-0.4 pps
	Nationals (15-64)	78.4	77.4	77.7	78.9	79.7	0.8 pps
	Non-nationals (15-64)	66.7	64.0	64.1	66.3	65.8	-0.5 pps
	Male	80.5	78.9	79.1	80.4	80.8	0.3 pps
	Young (15-24)	50.6	49.6	50.7	52.5	52.8	0.2 pps
	Prime age (25-54)	89.6	88.0	87.9	89.1	89.3	0.2 pps
	Older (55-64)	77.1	75.5	75.9	77.2	78.2	1.0 pps
	Female	72.8	71.9	71.9	73.0	73.6	0.5 pps
	Young (15-24)	46.1	46.5	45.9	47.9	48.7	0.8 pps
	Prime age (25-54)	81.1	79.9	80.3	80.9	81.0	0.1 pps
	Older (55-64)	68.4	67.8	67.7	69.4	71.0	1.6 pps
6	- Employed persons (15-64, 1000 pers.)	41065.1	40155.2	40035.7	40926.5	41363.0	1.1 %
7	- Employment growth (% , National accounts)	0.9	-0.8	0.2	1.4	0.7	-0.7 pps
	Employment growth (% , 15-64, LFS)	1.1	-2.2	-0.3	2.2	1.1	-1.2 pps
	Male	0.9	-2.4	-0.2	2.1	1.0	-1.1 pps
	Female	1.2	-2.0	-0.4	2.4	1.2	-1.2 pps
8	- Self employed (15-64, % of total employment)	8.5	7.8	7.8	7.7	7.4	-0.2 pps
	Male	10.7	9.7	9.7	9.5	9.2	-0.3 pps
	Female	6.1	5.7	5.6	5.6	5.5	-0.1 pps
9	- Temporary employment (15-64, % of total employment)	12.0	10.8	11.5	12.4	12.0	-0.4 pps
	Male	12.3	10.8	11.6	12.6	12.3	-0.3 pps
	Female	11.7	10.8	11.4	12.3	11.6	-0.7 pps
10	- Part-time (15-64, % of total employment)	27.2	27.8	27.8	28.0	28.7	0.7 pps
	Male	9.9	10.2	10.7	11.0	11.5	0.5 pps
	Female	46.7	47.8	47.2	47.1	47.9	0.8 pps
11	- Involuntary part-time (15-64, % of total employment)	2.5	2.1	2.0	1.7	1.6	-0.2 pps
12	- Unemployment rate (harmonised:15-74)	3.0	3.7	3.7	3.2	3.1	-0.1 pps
	Young (15-24)	5.8	7.1	7.0	6.0	5.9	-0.1 pps
	Prime age (25-49)	3.0	3.7	3.4	3.0	3.0	0.0 pps
	Older (55-64)	2.7	3.1	3.1	2.7	2.4	-0.3 pps
	Low-skilled (15-64)	8.1	9.4	8.0	6.8	6.5	-0.3 pps
	Medium-skilled (15-64)	2.8	3.3	3.2	2.8	2.6	-0.2 pps
	High-skilled (15-64)	1.9	2.6	2.5	2.1	2.2	0.1 pps
	Nationals (15-64)	2.6	3.1	3.1	2.7	2.5	-0.2 pps
	Non-nationals (15-64)	6.9	9.4	7.8	6.6	6.5	-0.1 pps
	Male	3.3	4.0	4.0	3.4	3.3	-0.1 pps
	Female	2.6	3.3	3.2	2.9	2.8	-0.1 pps
13	- Long-term unemployment (% of total unemployment)	38.1	29.3	32.7	33.3	30.6	-2.7 pps
14	- Worked hours (full-time, average actual weekly hours)	40.6	39.4	39.5	39.5	38.9	-1.5 %
	Male	41.3	40.1	40.2	40.1	39.6	-1.2 %
	Female	39.7	38.0	38.1	38.2	37.8	-1.0 %
15	- Sectoral employment growth (% change)						
	Agriculture	-1.6	-3.0	-3.4	-0.5	-0.4	0.1 pps
	Building and construction	1.4	1.6	1.0	0.5	0.6	0.1 pps
	Services	0.5	-1.7	-0.2	1.8	0.9	-1.0 pps
	Manufacturing industry	0.6	-2.5	-1.5	0.3	0.2	-0.1 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	3.4	0.4	3.1	3.9	5.8	1.9 pps
	Real compensation per employee based on GDP	1.3	-1.5	0.1	-1.3	.	: pps
	Labour cost index (compens. of employees plus taxes minus subs.)	3.1	1.8	0.7	6.5	5.0	-1.5 pps
	Labour cost index (wages and salaries, total)	2.9	1.7	0.9	5.4	4.9	-0.5 pps
	Labour productivity (GDP/person employed)	0.2	-3.1	3.0	0.4	-0.9	-1.3 pps

Estonia		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	1325	1329	1330	1332	1366	2.6 %
2	- Population (LFS, working age:15-64, 1000 pers.)	837	836	833	833	856	2.8 %
	(% of total population)	63.2	62.9	62.6	62.5	62.7	0.1 pps
3	- Labour force (15-64, 1000 pers.)	657	659	659	676	699	3.4 %
	<i>Male</i>	339	341	340	347	352	1.5 %
	<i>Female</i>	318	317	319	330	347	5.3 %
4	- Activity rate (% of population 15-64)	78.5	78.8	79.1	81.2	81.6	0.5 pps
	Young (15-24)	43.5	41.9	40.3	44.9	43.7	-1.2 pps
	Prime age (25-54)	87.5	87.8	88.8	90.8	91.0	0.2 pps
	Older (55-64)	74.9	76.5	76.6	77.4	80.7	3.3 pps
	Nationals (15-64)	78.4	78.5	79.2	81.5	81.5	0.0 pps
	Non-nationals (15-64)	78.5	80.3	78.8	78.9	82.3	3.3 pps
	<i>Male</i>	81.4	81.8	81.4	82.7	82.2	-0.5 pps
	Young (15-24)	44.2	42.9	40.6	41.4	41.0	-0.4 pps
	Prime age (25-54)	92.1	92.5	91.9	93.9	92.9	-1.0 pps
	Older (55-64)	72.6	74.3	76.0	75.9	78.3	2.5 pps
	<i>Female</i>	75.5	75.8	76.8	79.6	81.0	1.4 pps
	Young (15-24)	42.7	41.0	40.0	48.4	46.3	-2.1 pps
	Prime age (25-54)	82.6	83.0	85.4	87.4	89.1	1.7 pps
	Older (55-64)	76.7	78.5	77.0	78.7	82.6	3.9 pps
5	- Employment rate (% of population 15-64)	74.8	73.2	74.0	76.4	76.2	-0.2 pps
	Young (15-24)	38.4	34.2	33.5	36.5	36.1	-0.4 pps
	Prime age (25-54)	83.9	82.5	84.0	86.5	85.9	-0.6 pps
	Older (55-64)	71.9	71.3	71.6	73.8	76.0	2.3 pps
	Low-skilled (15-64)	42.3	39.5	40.1	43.4	42.6	-0.8 pps
	Medium-skilled (15-64)	78.0	76.5	76.0	79.2	78.5	-0.7 pps
	High-skilled (15-64)	86.4	84.6	87.1	88.1	89.7	1.5 pps
	Nationals (15-64)	75.2	73.3	74.7	77.2	76.6	-0.5 pps
	Non-nationals (15-64)	72.5	72.0	70.0	71.8	73.9	2.1 pps
	<i>Male</i>	78.0	75.8	75.6	77.5	77.1	-0.4 pps
	Young (15-24)	39.2	35.0	33.1	32.7	33.4	0.6 pps
	Prime age (25-54)	89.1	87.0	86.6	89.2	88.1	-1.1 pps
	Older (55-64)	69.1	68.4	70.2	71.6	74.0	2.4 pps
	<i>Female</i>	71.6	70.5	72.3	75.3	75.4	0.1 pps
	Young (15-24)	37.5	33.5	34.0	40.4	38.6	-1.7 pps
	Prime age (25-54)	78.5	77.8	81.1	83.6	83.7	0.1 pps
	Older (55-64)	74.3	74.0	72.9	75.5	77.6	2.2 pps
6	- Employed persons (15-64, 1000 pers.)	626.0	611.5	616.1	636.5	652.7	2.5 %
7	- Employment growth (% , National accounts)	1.3	-2.7	0.1	4.6	3.2	-1.4 pps
	Employment growth (% , 15-64, LFS)	0.6	-2.3	0.8	3.3	2.5	-0.8 pps
	<i>Male</i>	1.0	-2.5	-0.4	2.9	1.5	-1.3 pps
	<i>Female</i>	0.1	-2.1	1.9	3.8	3.6	-0.2 pps
8	- Self employed (15-64, % of total employment)	10.6	10.5	10.6	10.1	10.8	0.6 pps
	<i>Male</i>	14.4	14.5	14.8	13.8	14.3	0.5 pps
	<i>Female</i>	6.6	6.2	6.3	6.3	7.1	0.9 pps
9	- Temporary employment (15-64, % of total employment)	3.2	2.8	1.7	3.2	3.2	0.0 pps
	<i>Male</i>	3.1	2.8	1.8	3.1	3.3	0.2 pps
	<i>Female</i>	3.2	2.9	1.6	3.2	3.1	-0.1 pps
10	- Part-time (15-64, % of total employment)	11.3	12.3	12.2	13.2	13.5	0.3 pps
	<i>Male</i>	7.1	8.1	7.6	8.1	8.9	0.8 pps
	<i>Female</i>	15.9	16.8	16.9	18.5	18.1	-0.4 pps
11	- Involuntary part-time (15-64, % of total employment)	0.7	0.8	1.9	2.1	2.0	0.0 pps
12	- Unemployment rate (harmonised:15-74)	4.5	6.9	6.2	5.6	6.4	0.8 pps
	Young (15-24)	11.7	18.5	16.7	18.6	17.3	-1.3 pps
	Prime age (25-49)	4.0	6.0	5.4	4.7	5.6	0.9 pps
	Older (55-64)	4.0	6.7	6.4	4.7	5.8	1.1 pps
	Low-skilled (15-64)	10.2	13.8	15.0	12.6	13.1	0.5 pps
	Medium-skilled (15-64)	4.9	7.6	7.1	6.2	7.8	1.6 pps
	High-skilled (15-64)	2.8	4.9	3.6	3.8	3.6	-0.2 pps
	Nationals (15-64)	4.1	6.6	5.7	5.4	6.0	0.6 pps
	Non-nationals (15-64)	7.6	10.3	11.2	9.0	10.2	1.2 pps
	<i>Male</i>	4.1	7.1	6.8	6.1	6.2	0.1 pps
	<i>Female</i>	4.8	6.6	5.6	5.1	6.7	1.6 pps
13	- Long-term unemployment (% of total unemployment)	20.3	17.4	25.1	22.2	20.1	-2.1 pps
14	- Worked hours (full-time, average actual weekly hours)	40.1	38.9	39.0	38.5	38.6	0.3 %
	<i>Male</i>	40.7	40.0	39.1	39.5	39.1	-1.0 %
	<i>Female</i>	39.3	39.4	37.0	38.5	37.5	-2.6 %
15	- Sectoral employment growth (% change)						
	Agriculture	-3.2	-10.2	-13.0	2.4	4.1	1.7 pps
	Building and construction	2.4	0.8	-4.3	6.3	0.6	-5.7 pps
	Services	1.6	-5.7	0.4	6.0	5.6	-0.4 pps
	Manufacturing industry	-1.2	-2.5	-1.3	4.1	-2.2	-6.3 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	7.8	4.5	9.3	8.1	7.6	-0.5 pps
	Real compensation per employee based on GDP	4.1	5.4	3.2	-6.9	.	pps
	Labour cost index (compens. of employees plus taxes minus subs.)	7.2	1.5	6.3	9.9	10.2	0.3 pps
	Labour cost index (wages and salaries, total)	7.1	1.8	6.1	9.5	10.2	0.7 pps
	Labour productivity (GDP/person employed)	2.7	1.8	7.1	-4.8	-6.0	-1.2 pps

Ireland		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	4967	5034	5092	5200	5296	1.8 %
2	- Population (LFS, working age:15-64, 1000 pers.)	3219	3254	3330	3400	3473	2.1 %
	(% of total population)	64.8	64.6	65.4	65.4	65.6	0.2 pps
3	- Labour force (15-64, 1000 pers.)	2358	2339	2482	2610	2690	3.1 %
	<i>Male</i>	1264	1253	1311	1376	1406	2.2 %
	<i>Female</i>	1094	1086	1172	1233	1283	4.0 %
4	- Activity rate (% of population 15-64)	73.3	71.9	74.6	76.8	77.5	0.7 pps
	Young (15-24)	47.1	43.7	50.0	52.7	53.9	1.2 pps
	Prime age (25-54)	83.5	82.5	84.2	86.1	86.7	0.6 pps
	Older (55-64)	64.1	64.4	66.5	69.2	69.9	0.7 pps
	Nationals (15-64)	72.5	71.2	74.0	75.6	76.3	0.7 pps
	Non-nationals (15-64)	77.2	75.1	77.5	82.0	82.3	0.2 pps
	<i>Male</i>	79.2	77.7	79.4	81.9	82.0	0.1 pps
	Young (15-24)	48.2	44.3	50.1	53.1	53.6	0.5 pps
	Prime age (25-54)	90.6	89.5	90.2	92.0	92.0	0.0 pps
	Older (55-64)	72.5	72.7	73.6	77.7	78.2	0.5 pps
	<i>Female</i>	67.4	66.2	69.8	71.8	73.0	1.3 pps
	Young (15-24)	45.9	43.1	49.8	52.3	54.2	1.9 pps
	Prime age (25-54)	76.7	75.6	78.4	80.3	81.5	1.2 pps
	Older (55-64)	55.9	56.4	59.5	60.9	61.9	1.0 pps
5	- Employment rate (% of population 15-64)	69.5	67.7	69.8	73.3	74.0	0.8 pps
	Young (15-24)	41.2	37.0	42.7	47.4	48.2	0.8 pps
	Prime age (25-54)	80.1	78.7	79.9	82.8	83.6	0.8 pps
	Older (55-64)	61.8	61.8	62.9	66.9	67.7	0.8 pps
	Low-skilled (15-64)	37.7	35.4	36.1	38.9	39.0	0.1 pps
	Medium-skilled (15-64)	70.3	66.3	67.8	72.3	74.0	1.7 pps
	High-skilled (15-64)	85.2	83.8	84.9	87.1	87.4	0.3 pps
	Nationals (15-64)	68.9	67.4	69.4	72.3	73.1	0.8 pps
	Non-nationals (15-64)	72.7	69.6	71.8	77.6	78.0	0.3 pps
	<i>Male</i>	75.0	73.2	74.3	78.2	78.2	0.0 pps
	Young (15-24)	41.4	37.5	42.8	47.6	47.9	0.2 pps
	Prime age (25-54)	86.7	85.3	85.4	88.6	88.6	0.0 pps
	Older (55-64)	69.9	69.6	69.6	75.2	75.6	0.4 pps
	<i>Female</i>	64.2	62.4	65.5	68.4	69.9	1.5 pps
	Young (15-24)	41.0	36.5	42.5	47.1	48.4	1.4 pps
	Prime age (25-54)	73.6	72.2	74.6	77.2	78.8	1.6 pps
	Older (55-64)	53.9	54.3	56.4	58.8	60.0	1.2 pps
6	- Employed persons (15-64, 1000 pers.)	2238.5	2203.9	2325.0	2490.9	2570.7	3.2 %
7	- Employment growth (% , National accounts)	3.1	-2.5	6.6	6.9	3.5	-3.4 pps
	Employment growth (% , 15-64, LFS)	2.7	-1.5	5.5	7.1	3.2	-3.9 pps
	<i>Male</i>	2.5	-1.4	3.9	7.2	2.1	-5.1 pps
	<i>Female</i>	2.9	-1.7	7.3	7.0	4.4	-2.6 pps
8	- Self employed (15-64, % of total employment)	12.5	12.3	11.4	11.7	11.1	-0.5 pps
	<i>Male</i>	17.5	16.7	15.7	16.3	15.6	-0.7 pps
	<i>Female</i>	6.6	7.2	6.5	6.5	6.3	-0.3 pps
9	- Temporary employment (15-64, % of total employment)	9.7	9.0	9.4	8.4	8.4	0.0 pps
	<i>Male</i>	8.9	8.4	9.1	7.6	7.5	-0.1 pps
	<i>Female</i>	10.4	9.5	9.7	9.2	9.2	0.0 pps
10	- Part-time (15-64, % of total employment)	19.7	18.2	19.7	20.0	20.3	0.3 pps
	<i>Male</i>	10.1	9.6	10.9	10.9	11.2	0.3 pps
	<i>Female</i>	30.6	28.2	29.5	30.2	30.3	0.1 pps
11	- Involuntary part-time (15-64, % of total employment)	3.2	2.5	2.5	2.0	1.9	0.0 pps
12	- Unemployment rate (harmonised:15-74)	5.0	5.9	6.2	4.5	4.3	-0.2 pps
	Young (15-24)	12.5	15.3	14.6	10.1	10.7	0.6 pps
	Prime age (25-49)	4.1	4.6	5.0	3.8	3.5	-0.3 pps
	Older (55-64)	3.6	4.0	5.4	3.3	3.2	-0.1 pps
	Low-skilled (15-64)	9.7	9.1	11.5	9.7	9.6	-0.1 pps
	Medium-skilled (15-64)	6.1	7.1	8.0	5.3	5.1	-0.2 pps
	High-skilled (15-64)	3.2	4.2	4.3	3.1	2.9	-0.2 pps
	Nationals (15-64)	4.9	5.5	6.1	4.4	4.2	-0.2 pps
	Non-nationals (15-64)	5.7	7.3	7.5	5.4	5.2	-0.2 pps
	<i>Male</i>	5.2	5.8	6.3	4.4	4.4	0.0 pps
	<i>Female</i>	4.7	5.9	6.1	4.6	4.2	-0.4 pps
13	- Long-term unemployment (% of total unemployment)	33.0	23.7	29.8	30.7	27.4	-3.3 pps
14	- Worked hours (full-time, average actual weekly hours)	40.6	39.7	39.6	39.4	38.9	-1.3 %
	<i>Male</i>	42.2	41.4	41.1	40.9	40.4	-1.2 %
	<i>Female</i>	37.5	36.8	37.1	36.9	36.5	-1.1 %
15	- Sectoral employment growth (% change)						
	Agriculture	-3.9	0.2	5.1	-5.0	3.8	8.8 pps
	Building and construction	2.6	-7.7	3.5	19.4	-1.1	-20.5 pps
	Services	3.2	-3.9	5.8	7.8	4.0	-3.8 pps
	Manufacturing industry	2.3	3.1	7.3	2.3	-0.5	-2.8 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	4.0	2.9	2.9	2.5	6.8	4.3 pps
	Real compensation per employee based on GDP	0.4	5.0	2.2	-3.6	.	pps
	Labour cost index (compens. of employees plus taxes minus subs.)	3.7	-3.6	4.2	10.1	6.1	-4.0 pps
	Labour cost index (wages and salaries, total)	3.4	3.4	4.6	3.7	4.7	1.0 pps
	Labour productivity (GDP/person employed)	1.8	9.9	9.1	1.6	-8.7	-10.3 pps

Greece		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	10722	10699	10640	10579	10532	-0.4 %
2	- Population (LFS, working age:15-64, 1000 pers.)	6771	6719	6678	6640	6601	-0.6 %
	(% of total population)	63.1	62.8	62.8	62.8	62.7	-0.1 pps
3	- Labour force (15-64, 1000 pers.)	4634	4526	4492	4609	4591	-0.4 %
	<i>Male</i>	2571	2514	2486	2559	2543	-0.6 %
	<i>Female</i>	2063	2013	2006	2050	2048	-0.1 %
4	- Activity rate (% of population 15-64)	68.4	67.4	67.3	69.4	69.5	0.1 pps
	Young (15-24)	22.5	21.2	20.7	23.4	24.9	1.5 pps
	Prime age (25-54)	85.4	84.0	83.1	85.3	85.1	-0.2 pps
	Older (55-64)	49.8	50.8	54.4	57.1	58.0	1.0 pps
	Nationals (15-64)	68.2	67.2	67.2	69.4	69.6	0.2 pps
	Non-nationals (15-64)	72.1	70.7	68.3	70.5	69.2	-1.3 pps
	<i>Male</i>	76.7	75.5	75.0	77.5	77.4	-0.2 pps
	Young (15-24)	23.9	23.1	22.6	25.4	26.8	1.4 pps
	Prime age (25-54)	93.2	91.6	90.6	92.9	92.6	-0.3 pps
	Older (55-64)	63.8	64.5	66.5	70.3	70.2	-0.2 pps
	<i>Female</i>	60.4	59.4	59.6	61.4	61.8	0.4 pps
	Young (15-24)	21.0	19.3	18.8	21.5	23.1	1.6 pps
	Prime age (25-54)	77.6	76.3	75.4	77.4	77.3	-0.1 pps
	Older (55-64)	37.3	38.6	43.6	45.3	47.3	2.0 pps
5	- Employment rate (% of population 15-64)	56.5	56.3	57.2	60.7	61.8	1.1 pps
	Young (15-24)	14.6	13.8	13.4	16.1	18.3	2.2 pps
	Prime age (25-54)	70.8	70.4	71.1	75.0	75.7	0.7 pps
	Older (55-64)	43.2	44.6	48.3	51.9	54.1	2.2 pps
	Low-skilled (15-64)	39.0	37.7	38.9	40.6	41.7	1.1 pps
	Medium-skilled (15-64)	55.1	54.8	55.0	58.8	60.3	1.5 pps
	High-skilled (15-64)	75.2	74.5	75.1	78.5	79.1	0.6 pps
	Nationals (15-64)	56.7	56.6	57.5	60.9	61.9	1.1 pps
	Non-nationals (15-64)	53.0	50.4	52.1	56.1	58.1	2.0 pps
	<i>Male</i>	65.9	65.2	66.4	70.3	70.8	0.5 pps
	Young (15-24)	15.9	15.9	15.6	19.0	20.2	1.2 pps
	Prime age (25-54)	80.8	79.7	80.8	84.8	85.0	0.2 pps
	Older (55-64)	56.1	57.0	60.7	65.4	66.8	1.4 pps
	<i>Female</i>	47.3	47.5	48.2	51.2	52.9	1.7 pps
	Young (15-24)	13.2	11.7	11.1	13.1	16.3	3.2 pps
	Prime age (25-54)	60.8	61.1	61.3	65.0	66.1	1.1 pps
	Older (55-64)	31.6	33.5	37.3	39.9	42.8	2.9 pps
6	- Employed persons (15-64, 1000 pers.)	3824.6	3780.3	3822.8	4030.2	4078.2	1.2 %
7	- Employment growth (% , National accounts)	2.2	-2.6	1.2	2.5	1.0	-1.5 pps
	Employment growth (% , 15-64, LFS)	2.0	-1.2	1.1	5.4	1.2	-4.2 pps
	<i>Male</i>	0.9	-1.8	1.4	5.5	0.2	-5.2 pps
	<i>Female</i>	3.5	-0.3	0.7	5.4	2.5	-2.9 pps
8	- Self employed (15-64, % of total employment)	27.9	27.9	27.8	26.3	26.5	0.2 pps
	<i>Male</i>	32.9	32.9	33.2	31.6	32.1	0.5 pps
	<i>Female</i>	21.1	21.2	20.6	19.2	19.1	0.0 pps
9	- Temporary employment (15-64, % of total employment)	12.6	10.1	10.2	10.1	10.8	0.7 pps
	<i>Male</i>	10.9	8.8	8.3	8.1	8.8	0.7 pps
	<i>Female</i>	14.5	11.7	12.4	12.6	13.1	0.5 pps
10	- Part-time (15-64, % of total employment)	9.1	8.6	8.2	8.0	7.3	-0.7 pps
	<i>Male</i>	5.9	5.5	5.0	4.9	4.0	-0.9 pps
	<i>Female</i>	13.5	12.7	12.5	12.2	11.7	-0.5 pps
11	- Involuntary part-time (15-64, % of total employment)	6.0	5.6	4.6	3.9	3.1	-0.8 pps
12	- Unemployment rate (harmonised:15-74)	17.9	17.6	14.7	12.5	11.1	-1.4 pps
	Young (15-24)	35.2	35.0	35.5	31.4	26.7	-4.7 pps
	Prime age (25-49)	17.1	16.2	14.4	12.0	11.0	-1.0 pps
	Older (55-64)	13.4	12.2	11.1	9.1	6.8	-2.3 pps
	Low-skilled (15-64)	21.6	19.8	17.4	15.3	12.8	-2.5 pps
	Medium-skilled (15-64)	19.7	18.6	17.1	14.5	12.9	-1.6 pps
	High-skilled (15-64)	12.3	12.2	11.2	9.0	8.3	-0.7 pps
	Nationals (15-64)	16.8	15.7	14.5	12.2	11.0	-1.2 pps
	Non-nationals (15-64)	26.5	28.7	23.7	20.4	15.9	-4.5 pps
	<i>Male</i>	14.4	14.6	11.4	9.3	8.5	-0.8 pps
	<i>Female</i>	22.4	21.5	18.9	16.4	14.3	-2.1 pps
13	- Long-term unemployment (% of total unemployment)	70.0	66.5	62.7	63.0	57.0	-6.0 pps
14	- Worked hours (full-time, average actual weekly hours)	42.3	41.7	41.7	41.3	41.2	-0.2 %
	<i>Male</i>	44.1	42.9	42.9	42.4	42.0	-0.9 %
	<i>Female</i>	40.3	39.6	40.3	39.2	39.2	0.0 %
15	- Sectoral employment growth (% change)						
	Agriculture	-1.7	-3.5	3.8	1.1	3.5	2.4 pps
	Building and construction	-0.5	0.5	0.7	1.3	8.5	7.2 pps
	Services	3.7	-5.3	1.6	3.3	0.1	-3.2 pps
	Manufacturing industry	1.2	0.0	2.9	2.6	1.2	-1.4 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	-0.3	-0.4	3.8	2.8	5.5	2.8 pps
	Real compensation per employee based on GDP	-0.4	0.3	2.2	-4.7	.	. pps
	Labour cost index (compens. of employees plus taxes minus subs.)	3.5	2.9	0.7	8.8	8.4	-0.4 pps
	Labour cost index (wages and salaries, total)	2.4	3.0	1.0	8.9	8.1	-0.8 pps
	Labour productivity (GDP/person employed)	-0.3	-6.9	7.1	3.0	1.0	-2.0 pps

Spain		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	47105	47345	47373	47808	48222	0.9 %
2	- Population (LFS, working age:15-64, 1000 pers.)	30909	31110	31209	31475	31909	1.4 %
	(% of total population)	65.6	65.7	65.9	65.8	66.2	0.3 pps
3	- Labour force (15-64, 1000 pers.)	22804	22475	23006	23295	23765	2.0 %
	<i>Male</i>	12145	11961	12194	12360	12542	1.5 %
	<i>Female</i>	10659	10513	10812	10935	11223	2.6 %
4	- Activity rate (% of population 15-64)	73.8	72.2	73.7	74.0	74.5	0.5 pps
	Young (15-24)	33.0	29.9	31.5	32.6	33.1	0.5 pps
	Prime age (25-54)	87.0	85.5	86.9	87.2	87.6	0.4 pps
	Older (55-64)	61.6	62.5	64.4	65.4	67.1	1.7 pps
	Nationals (15-64)	73.5	72.1	73.6	73.9	74.4	0.5 pps
	Non-nationals (15-64)	75.9	73.5	74.6	74.7	75.1	0.4 pps
	<i>Male</i>	78.5	76.9	77.9	78.3	78.4	0.1 pps
	Young (15-24)	35.1	32.2	33.2	34.5	35.1	0.6 pps
	Prime age (25-54)	91.7	90.1	91.1	91.5	91.4	0.0 pps
	Older (55-64)	69.2	69.6	71.0	72.2	73.5	1.3 pps
	<i>Female</i>	69.0	67.6	69.5	69.7	70.5	0.8 pps
	Young (15-24)	30.7	27.5	29.8	30.5	30.9	0.4 pps
	Prime age (25-54)	82.3	80.8	82.7	82.8	83.7	0.8 pps
	Older (55-64)	54.4	55.7	58.1	58.9	61.1	2.2 pps
5	- Employment rate (% of population 15-64)	63.3	60.9	62.6	64.3	65.3	1.1 pps
	Young (15-24)	22.3	18.5	20.5	22.9	23.6	0.7 pps
	Prime age (25-54)	75.8	73.1	75.0	76.8	78.0	1.3 pps
	Older (55-64)	53.8	54.7	55.8	57.7	59.5	1.8 pps
	Low-skilled (15-64)	52.2	49.5	48.9	50.5	51.6	1.1 pps
	Medium-skilled (15-64)	61.1	57.6	59.1	60.8	61.6	0.9 pps
	High-skilled (15-64)	80.3	78.2	79.6	81.1	81.9	0.8 pps
	Nationals (15-64)	63.7	61.8	63.4	65.0	66.0	1.0 pps
	Non-nationals (15-64)	60.7	55.3	57.4	60.2	61.8	1.6 pps
	<i>Male</i>	68.7	66.1	67.5	69.3	70.0	0.7 pps
	Young (15-24)	24.3	20.3	21.9	24.6	25.0	0.4 pps
	Prime age (25-54)	81.6	78.8	80.3	82.2	83.0	0.8 pps
	Older (55-64)	61.1	61.6	62.7	64.7	66.3	1.6 pps
	<i>Female</i>	57.9	55.7	57.7	59.2	60.7	1.5 pps
	Young (15-24)	20.1	16.6	19.0	21.1	22.1	1.0 pps
	Prime age (25-54)	69.9	67.4	69.7	71.3	73.0	1.7 pps
	Older (55-64)	46.9	48.0	49.2	51.0	53.0	2.0 pps
6	- Employed persons (15-64, 1000 pers.)	19567.9	18957.5	19546.2	20234.7	20851.5	3.0 %
7	- Employment growth (% , National accounts)	2.6	-4.2	2.3	2.7	3.2	0.5 pps
	Employment growth (% , 15-64, LFS)	2.3	-3.1	3.1	3.5	3.0	-0.5 pps
	<i>Male</i>	2.0	-3.1	2.7	3.5	2.3	-1.2 pps
	<i>Female</i>	2.6	-3.1	3.6	3.5	3.9	0.4 pps
8	- Self employed (15-64, % of total employment)	14.9	15.3	15.0	14.5	14.4	-0.1 pps
	<i>Male</i>	18.2	18.5	18.4	17.5	17.3	-0.3 pps
	<i>Female</i>	11.0	11.4	11.0	11.0	11.1	0.1 pps
9	- Temporary employment (15-64, % of total employment)	26.3	24.2	25.4	21.4	17.3	-4.1 pps
	<i>Male</i>	25.4	22.7	23.2	19.1	15.1	-4.0 pps
	<i>Female</i>	27.3	25.7	27.7	23.9	19.6	-4.3 pps
10	- Part-time (15-64, % of total employment)	14.5	13.9	13.7	13.4	13.1	-0.3 pps
	<i>Male</i>	6.8	6.5	6.3	6.4	6.4	0.0 pps
	<i>Female</i>	23.7	22.6	22.4	21.6	21.0	-0.6 pps
11	- Involuntary part-time (15-64, % of total employment)	7.9	7.3	7.4	6.8	6.5	-0.4 pps
12	- Unemployment rate (harmonised:15-74)	14.1	15.5	14.9	13.0	12.2	-0.8 pps
	Young (15-24)	32.5	38.3	35.0	29.7	28.7	-1.0 pps
	Prime age (25-49)	12.9	14.5	13.7	11.9	10.9	-1.0 pps
	Older (55-64)	12.6	12.5	13.4	11.8	11.4	-0.4 pps
	Low-skilled (15-64)	20.5	21.9	21.7	19.5	18.1	-1.4 pps
	Medium-skilled (15-64)	14.5	16.6	16.2	14.2	13.3	-0.9 pps
	High-skilled (15-64)	8.7	10.3	9.4	7.8	7.4	-0.4 pps
	Nationals (15-64)	13.3	14.2	13.8	12.1	11.3	-0.8 pps
	Non-nationals (15-64)	20.1	24.7	23.1	19.5	17.8	-1.7 pps
	<i>Male</i>	12.5	13.9	13.2	11.4	10.7	-0.7 pps
	<i>Female</i>	16.0	17.4	16.8	14.9	13.9	-1.0 pps
13	- Long-term unemployment (% of total unemployment)	37.8	32.0	41.6	38.9	34.9	-4.0 pps
14	- Worked hours (full-time, average actual weekly hours)	39.9	39.1	38.9	39.1	38.8	-0.8 %
	<i>Male</i>	40.0	39.3	39.0	39.0	38.7	-0.8 %
	<i>Female</i>	38.7	38.0	37.7	38.0	37.7	-0.8 %
15	- Sectoral employment growth (% change)						
	Agriculture	-3.4	-5.8	3.7	-2.5	-2.5	0.0 pps
	Building and construction	8.6	-4.6	4.2	2.9	4.2	1.3 pps
	Services	3.8	-6.1	1.5	3.3	4.3	1.0 pps
	Manufacturing industry	2.8	-4.0	-0.3	2.2	1.2	-1.0 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	3.1	1.2	4.5	4.1	5.4	1.3 pps
	Real compensation per employee based on GDP	1.6	0.1	1.8	-0.1	.	pps
	Labour cost index (compens. of employees plus taxes minus subs.)	2.2	3.9	0.0	2.6	6.0	3.4 pps
	Labour cost index (wages and salaries, total)	1.8	3.1	0.5	3.2	5.3	2.1 pps
	Labour productivity (GDP/person employed)	-0.6	-7.3	4.0	3.0	-0.7	-3.7 pps

France	2019	2020	2021	2022	2023	2022-2023
1 - Population (LFS, total, 1000 pers.)	67396	67627	67871	68078	68288	0.3 %
2 - Population (LFS, working age:15-64, 1000 pers.)	40730	40692	40558	40820	40931	0.3 %
(% of total population)	60.4	60.2	59.8	60.0	59.9	0.0 pps
3 - Labour force (15-64, 1000 pers.)	29192	28902	29620	30029	30253	0.7 %
<i>Male</i>	15007	14846	15125	15329	15419	0.6 %
<i>Female</i>	14185	14056	14495	14700	14833	0.9 %
4 - Activity rate (% of population 15-64)	71.7	71.0	73.0	73.6	73.9	0.3 pps
Young (15-24)	36.8	35.6	39.7	42.2	42.5	0.3 pps
Prime age (25-54)	87.4	86.9	88.0	88.2	88.3	0.1 pps
Older (55-64)	57.0	57.1	59.7	60.3	61.7	1.4 pps
Nationals (15-64)	72.2	71.5	73.6	74.2	74.5	0.3 pps
Non-nationals (15-64)	65.5	65.5	66.5	66.6	67.4	0.9 pps
<i>Male</i>	75.3	74.5	76.2	76.6	76.8	0.2 pps
Young (15-24)	39.6	38.2	41.7	44.5	44.9	0.4 pps
Prime age (25-54)	91.9	91.5	92.3	92.3	92.1	-0.2 pps
Older (55-64)	59.5	59.4	61.7	61.9	63.1	1.2 pps
<i>Female</i>	68.2	67.6	70.0	70.7	71.2	0.5 pps
Young (15-24)	33.9	33.1	37.7	39.9	40.0	0.1 pps
Prime age (25-54)	83.1	82.6	84.0	84.3	84.6	0.3 pps
Older (55-64)	54.6	54.9	57.9	58.8	60.4	1.6 pps
5 - Employment rate (% of population 15-64)	65.6	65.3	67.2	68.1	68.4	0.3 pps
Young (15-24)	29.6	28.5	32.2	34.9	35.2	0.3 pps
Prime age (25-54)	80.9	80.8	82.1	82.7	82.7	-0.1 pps
Older (55-64)	53.1	53.8	55.9	56.9	58.4	1.5 pps
Low-skilled (15-64)	38.8	38.8	38.0	38.8	38.7	-0.1 pps
Medium-skilled (15-64)	66.2	64.8	67.8	68.3	68.5	0.2 pps
High-skilled (15-64)	83.3	82.5	84.2	84.8	85.0	0.2 pps
Nationals (15-64)	66.4	66.1	68.1	69.0	69.3	0.3 pps
Non-nationals (15-64)	55.7	55.7	57.2	58.1	59.1	1.0 pps
<i>Male</i>	68.8	68.5	70.1	70.8	71.0	0.2 pps
Young (15-24)	31.4	30.4	33.8	36.3	36.7	0.4 pps
Prime age (25-54)	85.2	85.0	86.0	86.6	86.4	-0.2 pps
Older (55-64)	55.5	56.0	57.7	58.3	59.7	1.4 pps
<i>Female</i>	62.5	62.2	64.5	65.6	66.0	0.4 pps
Young (15-24)	27.8	26.5	30.6	33.5	33.6	0.1 pps
Prime age (25-54)	76.8	76.7	78.3	79.0	79.1	0.1 pps
Older (55-64)	50.9	51.8	54.3	55.5	57.2	1.7 pps
6 - Employed persons (15-64, 1000 pers.)	26710.9	26563.1	27273.9	27815.5	28012.0	0.7 %
7 - Employment growth (% , National accounts)	1.2	-0.1	2.6	2.4	1.1	-1.3 pps
Employment growth (% , 15-64, LFS)	0.2	-0.6	2.7	2.0	0.7	-1.3 pps
<i>Male</i>	-0.3	-0.6	2.0	1.9	0.6	-1.2 pps
<i>Female</i>	0.8	-0.5	3.4	2.1	0.8	-1.3 pps
8 - Self employed (15-64, % of total employment)	11.3	11.6	11.8	12.2	12.1	-0.1 pps
<i>Male</i>	14.5	14.5	14.7	15.0	14.6	-0.4 pps
<i>Female</i>	8.0	8.6	8.7	9.3	9.5	0.2 pps
9 - Temporary employment (15-64, % of total employment)	16.2	15.3	15.0	16.1	15.5	-0.6 pps
<i>Male</i>	15.9	14.7	14.3	15.5	14.8	-0.7 pps
<i>Female</i>	16.6	15.9	15.6	16.6	16.3	-0.3 pps
10 - Part-time (15-64, % of total employment)	17.5	17.0	17.3	16.5	16.6	0.1 pps
<i>Male</i>	7.6	7.6	7.6	7.5	7.7	0.2 pps
<i>Female</i>	28.0	27.0	27.4	25.9	25.8	-0.1 pps
11 - Involuntary part-time (15-64, % of total employment)	6.6	6.5	4.9	4.3	4.0	-0.3 pps
12 - Unemployment rate (harmonised:15-74)	8.4	8.0	7.9	7.3	7.3	0.0 pps
Young (15-24)	19.5	20.2	18.9	17.3	17.2	-0.1 pps
Prime age (25-49)	7.4	7.1	6.8	6.2	6.4	0.2 pps
Older (55-64)	6.8	5.8	6.3	5.7	5.4	-0.3 pps
Low-skilled (15-64)	15.7	14.2	14.6	13.6	13.7	0.1 pps
Medium-skilled (15-64)	9.2	8.9	8.5	8.2	8.1	-0.1 pps
High-skilled (15-64)	5.1	5.3	5.3	4.8	5.0	0.2 pps
Nationals (15-64)	8.0	7.6	7.5	6.9	7.0	0.1 pps
Non-nationals (15-64)	15.0	14.9	14.0	12.7	12.3	-0.4 pps
<i>Male</i>	8.5	8.1	8.0	7.5	7.5	0.0 pps
<i>Female</i>	8.4	8.0	7.8	7.1	7.2	0.1 pps
13 - Long-term unemployment (% of total unemployment)	40.3	36.8	29.4	27.3	24.4	-2.9 pps
14 - Worked hours (full-time, average actual weekly hours)	38.8	38.1	38.6	38.7	38.5	-0.5 %
<i>Male</i>	39.9	39.1	39.5	39.6	39.3	-0.8 %
<i>Female</i>	36.3	35.8	36.3	36.4	36.3	-0.3 %
15 - Sectoral employment growth (% change)						
Agriculture	-0.1	-0.8	-1.8	-0.6	0.4	1.0 pps
Building and construction	3.0	3.3	4.2	2.2	0.1	-2.1 pps
Services	1.2	-0.5	3.6	3.8	1.5	-2.3 pps
Manufacturing industry	3.1	-0.4	0.6	1.5	0.9	-0.6 pps
16 - Indicator board on wage developments (% change)						
Compensation per employee	0.0	-3.5	5.0	4.8	4.2	-0.6 pps
Real compensation per employee based on GDP	-1.3	-6.2	3.4	1.9	.	: pps
Labour cost index (compens. of employees plus taxes minus subs.)	1.7	2.0	0.8	3.9	3.9	0.0 pps
Labour cost index (wages and salaries, total)	1.7	3.1	1.0	3.9	4.0	0.1 pps
Labour productivity (GDP/person employed)	0.8	-7.4	4.2	0.2	-0.1	-0.3 pps

Croatia		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	4067	4047	3958	3908	:	-%
2	- Population (LFS, working age:15-64, 1000 pers.)	2658	2629	2600	2573	2391	-7.1 %
	(% of total population)	65.4	64.9	65.7	65.8	:	: pps
3	- Labour force (15-64, 1000 pers.)	1768	1764	1785	1797	1675	-6.8 %
	<i>Male</i>	951	955	957	954	883	-7.5 %
	<i>Female</i>	818	809	828	843	793	-6.0 %
4	- Activity rate (% of population 15-64)	66.5	67.1	68.7	69.9	70.1	0.2 pps
	Young (15-24)	33.2	32.5	33.0	35.0	31.2	-3.8 pps
	Prime age (25-54)	83.6	83.9	85.3	86.0	86.4	0.3 pps
	Older (55-64)	45.5	47.8	50.8	52.7	54.1	1.4 pps
	Nationals (15-64)	66.5	67.1	68.7	69.8	70.0	0.2 pps
	Non-nationals (15-64)	69.9	55.7	65.3	80.6	75.9	-4.8 pps
	<i>Male</i>	71.5	72.6	73.6	74.1	73.5	-0.6 pps
	Young (15-24)	38.8	39.2	38.4	40.0	37.0	-3.0 pps
	Prime age (25-54)	86.9	88.1	89.3	89.5	88.7	-0.7 pps
	Older (55-64)	54.2	55.7	57.4	58.3	58.4	0.1 pps
	<i>Female</i>	61.5	61.6	63.7	65.6	66.6	1.0 pps
	Young (15-24)	27.3	25.3	27.2	29.7	25.0	-4.7 pps
	Prime age (25-54)	80.2	79.8	81.2	82.5	83.9	1.4 pps
	Older (55-64)	37.5	40.4	44.6	47.5	50.1	2.6 pps
5	- Employment rate (% of population 15-64)	62.1	62.0	63.4	64.9	65.7	0.8 pps
	Young (15-24)	27.7	25.6	25.8	28.7	25.3	-3.4 pps
	Prime age (25-54)	78.3	78.3	79.4	80.6	81.7	1.1 pps
	Older (55-64)	44.0	45.5	48.6	50.1	51.7	1.6 pps
	Low-skilled (15-64)	26.7	25.3	27.4	26.2	24.3	-1.9 pps
	Medium-skilled (15-64)	65.5	64.9	66.1	68.0	67.7	-0.3 pps
	High-skilled (15-64)	81.8	83.4	84.1	84.7	86.5	1.8 pps
	Nationals (15-64)	62.1	62.0	63.5	64.9	65.7	0.8 pps
	Non-nationals (15-64)	61.4	54.4	46.7	74.4	74.1	-0.3 pps
	<i>Male</i>	67.0	67.1	68.2	69.5	69.3	-0.2 pps
	Young (15-24)	33.2	31.9	31.1	34.1	30.7	-3.4 pps
	Prime age (25-54)	81.7	82.0	83.4	84.4	84.4	0.0 pps
	Older (55-64)	52.6	53.4	55.1	55.7	56.2	0.5 pps
	<i>Female</i>	57.1	56.9	58.6	60.4	62.1	1.7 pps
	Young (15-24)	21.9	19.0	20.0	23.0	19.5	-3.4 pps
	Prime age (25-54)	74.9	74.5	75.4	76.6	78.9	2.3 pps
	Older (55-64)	35.9	38.2	42.7	45.0	47.6	2.6 pps
6	- Employed persons (15-64, 1000 pers.)	1649.6	1629.8	1649.2	1670.7	1571.7	-5.9 %
7	- Employment growth (% National accounts)	3.1	-1.2	1.2	2.3	1.8	-0.5 pps
	Employment growth (% 15-64, LFS)	1.2	-1.2	1.2	1.3	-5.9	-7.2 pps
	<i>Male</i>	1.4	-0.9	0.5	0.8	-7.0	-7.8 pps
	<i>Female</i>	1.0	-1.5	2.0	1.9	-4.7	-6.6 pps
8	- Self employed (15-64, % of total employment)	10.5	11.0	11.1	11.7	12.1	0.4 pps
	<i>Male</i>	13.3	14.3	14.7	15.4	16.0	0.6 pps
	<i>Female</i>	7.2	7.2	6.8	7.5	7.7	0.2 pps
9	- Temporary employment (15-64, % of total employment)	18.1	15.2	13.5	14.6	11.1	-3.5 pps
	<i>Male</i>	16.9	14.3	11.7	12.2	9.4	-2.8 pps
	<i>Female</i>	19.3	16.2	15.5	17.1	12.8	-4.3 pps
10	- Part-time (15-64, % of total employment)	4.8	4.5	4.7	4.7	3.7	-1.0 pps
	<i>Male</i>	3.1	3.2	3.7	3.6	3.0	-0.6 pps
	<i>Female</i>	6.7	6.1	5.8	6.0	4.5	-1.5 pps
11	- Involuntary part-time (15-64, % of total employment)	1.4	1.3	1.6	1.6	1.1	-0.5 pps
12	- Unemployment rate (harmonised:15-74)	6.6	7.5	7.6	7.0	6.1	-0.9 pps
	Young (15-24)	16.6	21.1	21.9	18.0	19.0	1.0 pps
	Prime age (25-49)	6.3	6.8	6.9	6.4	5.4	-1.0 pps
	Older (55-64)	3.4	4.7	4.2	4.8	4.4	-0.4 pps
	Low-skilled (15-64)	9.6	10.3	10.9	12.1	12.3	0.2 pps
	Medium-skilled (15-64)	7.0	8.2	8.4	7.3	6.9	-0.4 pps
	High-skilled (15-64)	5.4	5.4	4.9	5.3	3.7	-1.6 pps
	Nationals (15-64)	6.7	7.6	7.6	7.0	6.2	-0.8 pps
	Non-nationals (15-64)	0.0	0.0	29.2	0.0	0.0	0.0 pps
	<i>Male</i>	6.2	7.5	7.3	6.2	5.6	-0.6 pps
	<i>Female</i>	7.2	7.6	8.0	7.9	6.6	-1.3 pps
13	- Long-term unemployment (% of total unemployment)	37.2	28.9	37.4	35.9	35.1	-0.8 pps
14	- Worked hours (full-time, average actual weekly hours)	39.9	39.3	39.0	38.8	38.7	-0.3 %
	<i>Male</i>	39.8	39.4	39.5	39.4	39.2	-0.5 %
	<i>Female</i>	38.8	38.4	38.3	38.1	38.1	0.0 %
15	- Sectoral employment growth (% change)						
	Agriculture	1.3	-1.3	8.4	3.1	-2.2	-5.3 pps
	Building and construction	5.7	5.5	6.3	5.5	1.9	-3.6 pps
	Services	0.4	-1.4	0.0	4.0	3.4	-0.5 pps
	Manufacturing industry	5.3	-1.3	1.9	0.7	0.2	-0.5 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	0.4	1.2	6.4	11.4	12.3	0.9 pps
	Real compensation per employee based on GDP	-1.6	0.4	4.2	2.6	:	: pps
	Labour cost index (compens. of employees plus taxes minus subs.)	3.2	-2.6	2.7	9.4	13.9	4.5 pps
	Labour cost index (wages and salaries, total)	3.8	-1.7	2.7	9.4	13.9	4.5 pps
	Labour productivity (GDP/person employed)	0.4	-7.4	11.7	4.6	1.2	-3.4 pps

Italy	2019	2020	2021	2022	2023	2022-2023
1 - Population (LFS, total, 1000 pers.)	59729	59439	59133	59014	58994	0.0 %
2 - Population (LFS, working age:15-64, 1000 pers.)	38007	37798	37526	37266	37143	-0.3 %
(% of total population)	63.6	63.6	63.5	63.1	63.0	-0.2 pps
3 - Labour force (15-64, 1000 pers.)	24988	24220	24198	24421	24766	1.4 %
<i>Male</i>	14214	13860	13782	13896	14074	1.3 %
<i>Female</i>	10774	10360	10416	10526	10692	1.6 %
4 - Activity rate (% of population 15-64)	65.7	64.1	64.5	65.5	66.7	1.1 pps
Young (15-24)	25.9	23.8	24.9	26.0	26.4	0.4 pps
Prime age (25-54)	78.2	76.5	77.3	78.6	79.7	1.2 pps
Older (55-64)	57.4	56.8	56.5	57.8	60.1	2.2 pps
Nationals (15-64)	65.2	63.9	64.1	65.2	66.4	1.2 pps
Non-nationals (15-64)	70.9	66.1	67.6	68.9	69.6	0.7 pps
<i>Male</i>	75.0	73.6	73.6	74.6	75.7	1.1 pps
Young (15-24)	29.6	28.4	29.4	30.1	30.8	0.7 pps
Prime age (25-54)	88.5	87.0	87.3	88.6	89.4	0.9 pps
Older (55-64)	68.5	67.7	67.2	68.6	71.0	2.4 pps
<i>Female</i>	56.5	54.7	55.4	56.4	57.7	1.2 pps
Young (15-24)	22.0	18.9	20.1	21.5	21.6	0.1 pps
Prime age (25-54)	67.9	66.1	67.3	68.5	69.9	1.4 pps
Older (55-64)	46.9	46.6	46.5	47.6	49.6	2.1 pps
5 - Employment rate (% of population 15-64)	59.1	58.1	58.2	60.1	61.5	1.3 pps
Young (15-24)	18.4	16.7	17.5	19.8	20.4	0.6 pps
Prime age (25-54)	70.6	69.6	70.2	72.4	73.8	1.4 pps
Older (55-64)	54.3	54.0	53.4	55.0	57.3	2.3 pps
Low-skilled (15-64)	44.0	42.8	42.7	44.4	44.6	0.2 pps
Medium-skilled (15-64)	65.0	63.8	63.7	65.8	66.8	1.0 pps
High-skilled (15-64)	79.0	78.2	79.2	80.6	81.6	1.0 pps
Nationals (15-64)	58.9	58.1	58.3	60.1	61.5	1.4 pps
Non-nationals (15-64)	61.1	57.3	57.8	60.6	61.6	1.0 pps
<i>Male</i>	68.1	67.2	67.1	69.2	70.4	1.2 pps
Young (15-24)	21.4	20.4	21.3	23.4	24.3	0.9 pps
Prime age (25-54)	80.9	80.1	80.2	82.7	83.7	1.0 pps
Older (55-64)	64.6	64.2	63.4	65.3	67.8	2.5 pps
<i>Female</i>	50.2	49.0	49.4	51.1	52.5	1.4 pps
Young (15-24)	15.2	12.8	13.5	16.0	16.2	0.2 pps
Prime age (25-54)	60.3	59.2	60.1	62.0	63.8	1.7 pps
Older (55-64)	44.6	44.3	44.0	45.2	47.2	2.0 pps
6 - Employed persons (15-64, 1000 pers.)	22465.4	21943.4	21849.2	22412.5	22834.9	1.9 %
7 - Employment growth (% , National accounts)	0.5	-2.1	0.9	1.8	1.8	0.0 pps
Employment growth (% , 15-64, LFS)	0.5	-2.3	-0.4	2.6	1.9	-0.7 pps
<i>Male</i>	0.3	-1.8	-0.8	2.6	1.6	-1.0 pps
<i>Female</i>	0.8	-3.0	0.1	2.6	2.2	-0.3 pps
8 - Self employed (15-64, % of total employment)	20.4	20.2	19.6	19.5	19.3	-0.3 pps
<i>Male</i>	24.5	24.3	23.6	23.3	22.9	-0.4 pps
<i>Female</i>	14.9	14.7	14.2	14.4	14.3	-0.1 pps
9 - Temporary employment (15-64, % of total employment)	17.0	15.1	16.6	16.9	16.1	-0.8 pps
<i>Male</i>	16.7	14.8	15.8	15.7	14.8	-0.9 pps
<i>Female</i>	17.5	15.5	17.4	18.3	17.7	-0.6 pps
10 - Part-time (15-64, % of total employment)	18.7	18.2	18.2	17.9	17.6	-0.3 pps
<i>Male</i>	8.2	8.0	8.4	7.7	7.4	-0.3 pps
<i>Female</i>	32.9	32.1	31.5	31.7	31.4	-0.3 pps
11 - Involuntary part-time (15-64, % of total employment)	12.3	12.0	11.4	10.4	9.6	-0.7 pps
12 - Unemployment rate (harmonised:15-74)	9.9	9.3	9.5	8.1	7.7	-0.4 pps
Young (15-24)	29.1	29.7	29.7	23.7	22.7	-1.0 pps
Prime age (25-49)	9.8	9.0	9.2	7.9	7.5	-0.4 pps
Older (55-64)	5.4	5.0	5.5	4.8	4.6	-0.2 pps
Low-skilled (15-64)	14.1	13.3	13.7	12.0	11.7	-0.3 pps
Medium-skilled (15-64)	9.5	8.8	9.3	7.9	7.5	-0.4 pps
High-skilled (15-64)	5.8	5.5	5.2	4.2	3.9	-0.3 pps
Nationals (15-64)	9.6	9.0	9.1	7.8	7.4	-0.4 pps
Non-nationals (15-64)	13.9	13.2	14.5	12.0	11.5	-0.5 pps
<i>Male</i>	9.1	8.6	8.7	7.1	6.8	-0.3 pps
<i>Female</i>	11.1	10.4	10.6	9.4	8.8	-0.6 pps
13 - Long-term unemployment (% of total unemployment)	57.5	53.4	58.0	58.4	56.0	-2.4 pps
14 - Worked hours (full-time, average actual weekly hours)	40.1	38.8	39.2	39.2	39.0	-0.5 %
<i>Male</i>	40.6	39.6	39.8	39.7	39.4	-0.8 %
<i>Female</i>	39.1	38.0	38.1	38.3	37.8	-1.3 %
15 - Sectoral employment growth (% change)						
Agriculture	-1.3	-2.5	-0.9	-1.2	-1.5	-0.3 pps
Building and construction	-0.1	1.5	5.3	7.4	1.3	-6.1 pps
Services	1.0	-3.5	0.6	2.7	2.8	0.1 pps
Manufacturing industry	0.6	-2.1	0.1	1.5	1.7	0.2 pps
16 - Indicator board on wage developments (% change)						
Compensation per employee	1.3	-4.1	6.3	4.8	2.4	-2.3 pps
Real compensation per employee based on GDP	0.3	-5.6	5.1	1.1	.	: pps
Labour cost index (compens. of employees plus taxes minus subs.)	2.4	3.9	-1.3	2.1	2.9	0.8 pps
Labour cost index (wages and salaries, total)	1.8	4.3	-1.0	2.2	2.6	0.4 pps
Labour productivity (GDP/person employed)	0.0	-7.0	7.4	2.2	-0.9	-3.1 pps

Cyprus		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	882	892	900	913	927	1.6 %
2	- Population (LFS, working age:15-64, 1000 pers.)	572	579	589	598	605	1.1 %
	(% of total population)	64.9	64.9	65.4	65.5	65.2	-0.3 pps
3	- Labour force (15-64, 1000 pers.)	435	439	452	467	478	2.2 %
	<i>Male</i>	226	231	235	241	244	1.0 %
	<i>Female</i>	209	208	217	226	234	3.6 %
4	- Activity rate (% of population 15-64)	76.0	75.8	76.7	78.1	79.0	0.9 pps
	Young (15-24)	38.8	38.3	42.0	42.3	43.8	1.5 pps
	Prime age (25-54)	88.3	87.9	87.7	89.3	89.6	0.3 pps
	Older (55-64)	65.2	64.8	67.0	68.4	70.1	1.6 pps
	Nationals (15-64)	75.9	75.4	76.2	77.6	78.2	0.6 pps
	Non-nationals (15-64)	76.8	77.0	78.5	80.0	81.6	1.6 pps
	<i>Male</i>	81.5	82.3	82.7	83.7	83.5	-0.2 pps
	Young (15-24)	37.6	40.3	44.5	43.7	45.3	1.5 pps
	Prime age (25-54)	93.4	93.2	93.1	94.2	93.9	-0.3 pps
	Older (55-64)	76.7	77.7	78.9	80.0	78.4	-1.6 pps
	<i>Female</i>	71.0	69.7	71.1	73.0	74.9	1.8 pps
	Young (15-24)	39.8	36.7	39.6	41.2	42.8	1.6 pps
	Prime age (25-54)	83.5	82.7	82.7	84.9	85.7	0.8 pps
	Older (55-64)	54.2	52.2	55.2	57.1	61.8	4.7 pps
5	- Employment rate (% of population 15-64)	70.5	69.9	70.8	72.7	74.1	1.3 pps
	Young (15-24)	32.4	31.3	34.8	34.5	36.5	2.0 pps
	Prime age (25-54)	82.6	81.7	81.5	83.9	84.8	0.8 pps
	Older (55-64)	61.1	61.0	63.4	65.1	66.8	1.8 pps
	Low-skilled (15-64)	46.2	47.3	46.3	46.8	47.1	0.3 pps
	Medium-skilled (15-64)	70.9	68.5	69.3	72.0	73.6	1.6 pps
	High-skilled (15-64)	83.2	83.1	83.7	84.6	85.2	0.6 pps
	Nationals (15-64)	70.1	69.8	70.8	72.6	73.8	1.2 pps
	Non-nationals (15-64)	72.2	70.3	70.8	73.1	75.0	1.9 pps
	<i>Male</i>	76.2	75.9	76.7	78.6	78.3	-0.3 pps
	Young (15-24)	30.4	30.5	36.5	35.5	36.6	1.1 pps
	Prime age (25-54)	88.4	87.1	86.9	89.5	89.1	-0.4 pps
	Older (55-64)	72.0	73.2	74.9	76.1	74.7	-1.4 pps
	<i>Female</i>	65.2	64.3	65.3	67.3	70.2	2.9 pps
	Young (15-24)	34.1	32.2	33.2	33.5	36.4	2.9 pps
	Prime age (25-54)	77.1	76.4	76.5	78.8	80.9	2.0 pps
	Older (55-64)	50.8	49.3	52.1	54.3	59.1	4.7 pps
6	- Employed persons (15-64, 1000 pers.)	403.5	404.8	417.0	435.0	448.0	3.0 %
7	- Employment growth (% , National accounts)	3.8	-1.2	3.2	3.0	1.5	-1.5 pps
	Employment growth (% , 15-64, LFS)	3.5	0.3	3.0	4.3	3.0	-1.3 pps
	<i>Male</i>	4.9	0.9	2.3	3.9	0.8	-3.1 pps
	<i>Female</i>	2.1	-0.2	3.8	4.8	5.3	0.5 pps
8	- Self employed (15-64, % of total employment)	12.0	12.1	9.9	9.4	9.3	0.0 pps
	<i>Male</i>	14.4	14.9	11.5	10.2	10.6	0.4 pps
	<i>Female</i>	9.3	9.1	8.0	8.5	8.0	-0.5 pps
9	- Temporary employment (15-64, % of total employment)	13.7	13.4	13.0	11.5	13.2	1.7 pps
	<i>Male</i>	9.5	8.9	9.2	8.0	10.4	2.4 pps
	<i>Female</i>	18.2	18.1	17.0	15.3	16.0	0.7 pps
10	- Part-time (15-64, % of total employment)	10.2	10.0	10.1	9.3	8.0	-1.3 pps
	<i>Male</i>	6.3	6.8	7.8	6.8	5.6	-1.2 pps
	<i>Female</i>	14.6	13.6	12.7	12.0	10.5	-1.5 pps
11	- Involuntary part-time (15-64, % of total employment)	5.8	5.7	4.7	4.7	3.8	-0.9 pps
12	- Unemployment rate (harmonised:15-74)	7.1	7.6	7.5	6.8	6.1	-0.7 pps
	Young (15-24)	16.6	18.2	17.1	18.6	16.9	-1.7 pps
	Prime age (25-49)	6.4	7.1	7.1	6.0	5.4	-0.6 pps
	Older (55-64)	6.3	5.8	5.3	4.9	4.5	-0.4 pps
	Low-skilled (15-64)	8.2	7.8	9.0	8.6	7.5	-1.1 pps
	Medium-skilled (15-64)	8.1	8.6	8.8	7.8	6.8	-1.0 pps
	High-skilled (15-64)	6.2	7.1	6.4	5.9	5.6	-0.3 pps
	Nationals (15-64)	7.6	7.5	7.0	6.4	5.6	-0.8 pps
	Non-nationals (15-64)	6.1	8.8	9.8	8.6	8.1	-0.5 pps
	<i>Male</i>	6.3	7.6	7.1	6.0	6.1	0.1 pps
	<i>Female</i>	8.0	7.6	7.9	7.7	6.2	-1.5 pps
13	- Long-term unemployment (% of total unemployment)	29.2	28.2	34.2	33.1	30.9	-2.2 pps
14	- Worked hours (full-time, average actual weekly hours)	39.9	39.3	39.3	40.0	40.3	0.7 %
	<i>Male</i>	40.8	40.4	40.4	40.9	41.3	1.0 %
	<i>Female</i>	38.0	37.7	37.6	38.2	38.6	1.0 %
15	- Sectoral employment growth (% change)						
	Agriculture	1.0	0.8	0.7	1.1	0.4	-0.7 pps
	Building and construction	9.6	3.7	3.3	2.5	1.2	-1.3 pps
	Services	3.4	-3.8	4.0	3.9	1.4	-2.5 pps
	Manufacturing industry	3.7	-0.8	2.8	3.0	2.1	-0.9 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	4.4	-0.5	4.3	1.1	5.6	4.6 pps
	Real compensation per employee based on GDP	3.1	0.9	1.6	-4.7	.	. pps
	Labour cost index (compens. of employees plus taxes minus subs.)	3.6	-2.2	2.3	8.6	5.3	-3.3 pps
	Labour cost index (wages and salaries, total)	1.8	-2.6	2.1	8.0	5.3	-2.7 pps
	Labour productivity (GDP/person employed)	1.7	-2.3	6.5	2.0	1.0	-1.0 pps

Latvia	2019	2020	2021	2022	2023	2022-2023
1 - Population (LFS, total, 1000 pers.)	1913	1901	1883	1886	1882	-0.2 %
2 - Population (LFS, working age:15-64, 1000 pers.)	1204	1190	1177	1178	1166	-1.0 %
(% of total population)	62.9	62.6	62.5	62.5	62.0	-0.5 pps
3 - Labour force (15-64, 1000 pers.)	931	931	892	904	894	-1.1 %
Male	468	469	454	455	451	-0.9 %
Female	463	461	438	449	443	-1.4 %
4 - Activity rate (% of population 15-64)	77.3	78.2	75.8	76.8	76.6	-0.1 pps
Young (15-24)	36.3	34.8	32.7	36.2	35.0	-1.2 pps
Prime age (25-54)	88.3	89.3	87.1	87.7	87.6	0.0 pps
Older (55-64)	72.1	74.7	72.2	73.7	75.5	1.7 pps
Nationals (15-64)	77.7	78.2	76.1	76.8	76.6	-0.2 pps
Non-nationals (15-64)	74.1	78.0	74.2	76.2	77.1	0.9 pps
Male	79.8	80.7	78.8	79.1	79.0	-0.1 pps
Young (15-24)	39.6	38.0	35.3	39.1	37.0	-2.1 pps
Prime age (25-54)	91.2	92.0	90.9	90.9	91.0	0.1 pps
Older (55-64)	73.0	76.8	73.2	73.4	75.3	2.0 pps
Female	75.0	75.8	73.0	74.5	74.4	-0.1 pps
Young (15-24)	32.8	31.5	30.0	33.1	32.7	-0.4 pps
Prime age (25-54)	85.5	86.6	83.3	84.4	84.3	-0.1 pps
Older (55-64)	71.4	72.9	71.4	74.0	75.6	1.5 pps
5 - Employment rate (% of population 15-64)	72.3	71.6	69.9	71.3	71.5	0.1 pps
Young (15-24)	31.8	29.7	27.9	30.6	30.6	0.0 pps
Prime age (25-54)	83.1	82.2	80.4	81.8	82.0	0.2 pps
Older (55-64)	67.3	68.6	67.8	69.5	70.9	1.4 pps
Low-skilled (15-64)	36.4	35.3	31.7	32.4	33.8	1.4 pps
Medium-skilled (15-64)	72.4	72.4	69.9	72.3	72.5	0.2 pps
High-skilled (15-64)	89.0	86.3	85.7	86.6	87.5	0.9 pps
Nationals (15-64)	72.8	71.9	70.4	71.6	71.6	0.0 pps
Non-nationals (15-64)	68.4	69.8	65.9	68.8	71.0	2.2 pps
Male	73.9	73.1	71.9	72.5	72.7	0.2 pps
Young (15-24)	33.9	32.5	30.1	31.5	31.7	0.2 pps
Prime age (25-54)	85.2	83.8	82.9	84.0	84.3	0.2 pps
Older (55-64)	67.6	69.5	68.5	68.2	69.9	1.6 pps
Female	70.7	70.2	68.0	70.2	70.2	0.0 pps
Young (15-24)	29.6	26.7	25.5	29.8	29.5	-0.3 pps
Prime age (25-54)	81.0	80.6	77.9	79.6	79.8	0.2 pps
Older (55-64)	67.1	67.9	67.1	70.5	71.6	1.1 pps
6 - Employed persons (15-64, 1000 pers.)	870.3	852.2	822.0	840.0	833.4	-0.8 %
7 - Employment growth (% , National accounts)	-0.1	-2.3	-2.6	2.7	0.1	-2.6 pps
Employment growth (% , 15-64, LFS)	-0.3	-2.1	-3.5	2.2	-0.8	-3.0 pps
Male	-0.1	-2.1	-2.6	0.8	-0.4	-1.3 pps
Female	-0.5	-2.1	-4.4	3.6	-1.2	-4.8 pps
8 - Self employed (15-64, % of total employment)	11.0	12.2	12.2	12.6	12.5	-0.1 pps
Male	12.7	14.0	14.6	15.0	15.1	0.0 pps
Female	9.3	10.5	9.8	10.2	10.0	-0.3 pps
9 - Temporary employment (15-64, % of total employment)	3.2	2.8	2.8	2.7	2.6	-0.1 pps
Male	3.9	3.0	3.3	3.1	3.1	0.0 pps
Female	2.5	2.6	2.3	2.4	2.2	-0.2 pps
10 - Part-time (15-64, % of total employment)	8.4	8.9	7.8	6.6	6.8	0.2 pps
Male	5.8	6.5	5.6	4.2	4.7	0.5 pps
Female	10.9	11.3	10.0	8.9	8.9	0.0 pps
11 - Involuntary part-time (15-64, % of total employment)	1.8	2.1	2.7	2.1	1.8	-0.3 pps
12 - Unemployment rate (harmonised:15-74)	6.3	8.1	7.6	6.9	6.5	-0.4 pps
Young (15-24)	12.4	14.9	14.8	15.3	12.3	-3.0 pps
Prime age (25-49)	5.9	7.9	7.8	6.7	6.4	-0.3 pps
Older (55-64)	6.6	8.1	6.2	5.7	6.1	0.4 pps
Low-skilled (15-64)	14.1	18.9	15.1	15.2	13.5	-1.7 pps
Medium-skilled (15-64)	7.3	9.1	9.3	8.2	8.3	0.1 pps
High-skilled (15-64)	3.7	5.3	4.8	4.2	3.5	-0.7 pps
Nationals (15-64)	6.3	8.1	7.4	6.8	6.6	-0.2 pps
Non-nationals (15-64)	7.7	10.5	11.2	9.6	7.9	-1.7 pps
Male	7.2	9.1	8.5	8.1	7.6	-0.5 pps
Female	5.4	7.1	6.6	5.6	5.4	-0.2 pps
13 - Long-term unemployment (% of total unemployment)	37.9	27.4	30.1	28.9	27.2	-1.7 pps
14 - Worked hours (full-time, average actual weekly hours)	39.7	39.4	39.5	39.6	39.6	0.0 %
Male	39.9	39.5	39.8	39.9	39.7	-0.5 %
Female	39.4	39.1	39.2	39.5	39.4	-0.3 %
15 - Sectoral employment growth (% change)						
Agriculture	0.8	0.4	-2.4	-3.0	1.8	4.8 pps
Building and construction	2.4	-4.5	-3.4	-1.8	1.2	3.0 pps
Services	-0.8	-3.4	-4.8	5.6	0.2	-5.5 pps
Manufacturing industry	0.6	-3.3	4.6	2.0	-1.9	-3.9 pps
16 - Indicator board on wage developments (% change)						
Compensation per employee	7.8	4.3	8.5	12.2	12.6	0.4 pps
Real compensation per employee based on GDP	3.5	2.2	4.6	0.4	.	: pps
Labour cost index (compens. of employees plus taxes minus subs.)	7.2	5.7	3.1	8.3	11.3	3.0 pps
Labour cost index (wages and salaries, total)	7.1	5.9	4.1	7.5	11.5	4.0 pps
Labour productivity (GDP/person employed)	0.7	-1.2	9.5	0.2	-0.3	-0.5 pps

Lithuania		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	2794	2795	2808	2832	2872	1.4 %
2	- Population (LFS, working age:15-64, 1000 pers.)	1814	1812	1808	1836	1870	1.8 %
	(% of total population)	64.9	64.8	64.4	64.9	65.1	0.3 pps
3	- Labour force (15-64, 1000 pers.)	1416	1423	1414	1444	1473	2.0 %
	<i>Male</i>	707	719	717	712	741	4.2 %
	<i>Female</i>	709	704	698	732	732	-0.1 %
4	- Activity rate (% of population 15-64)	78.0	78.5	78.2	78.6	78.8	0.1 pps
	Young (15-24)	37.3	36.6	36.3	36.3	35.8	-0.5 pps
	Prime age (25-54)	90.3	90.4	90.1	90.1	90.1	0.0 pps
	Older (55-64)	73.5	75.0	74.0	74.9	75.3	0.4 pps
	Nationals (15-64)	78.0	78.5	78.2	78.6	78.7	0.2 pps
	Non-nationals (15-64)	80.6	81.4	77.8	81.1	80.9	-0.2 pps
	<i>Male</i>	79.2	79.9	79.2	79.2	79.8	0.5 pps
	Young (15-24)	38.9	38.9	38.2	36.5	36.1	-0.4 pps
	Prime age (25-54)	91.4	91.4	91.0	91.2	91.5	0.3 pps
	Older (55-64)	74.6	76.6	74.1	74.7	75.3	0.6 pps
	<i>Female</i>	76.9	77.2	77.2	78.0	77.8	-0.2 pps
	Young (15-24)	35.7	34.2	34.3	36.1	35.5	-0.6 pps
	Prime age (25-54)	89.2	89.4	89.2	89.0	88.7	-0.3 pps
	Older (55-64)	72.5	73.6	74.1	75.1	75.3	0.2 pps
5	- Employment rate (% of population 15-64)	73.0	71.6	72.4	73.8	73.2	-0.6 pps
	Young (15-24)	32.9	29.4	31.1	32.0	30.8	-1.1 pps
	Prime age (25-54)	85.1	83.7	84.3	85.2	84.6	-0.6 pps
	Older (55-64)	68.4	67.6	68.0	69.7	69.0	-0.7 pps
	Low-skilled (15-64)	23.2	22.7	25.1	23.8	24.4	0.6 pps
	Medium-skilled (15-64)	70.6	68.4	69.3	71.7	71.0	-0.7 pps
	High-skilled (15-64)	90.8	89.5	89.3	89.7	89.4	-0.3 pps
	Nationals (15-64)	73.0	71.6	72.5	73.7	73.1	-0.6 pps
	Non-nationals (15-64)	77.1	77.1	71.0	74.5	75.6	1.1 pps
	<i>Male</i>	73.5	72.2	72.9	73.9	73.7	-0.2 pps
	Young (15-24)	33.4	30.5	32.8	31.6	29.9	-1.8 pps
	Prime age (25-54)	85.4	84.0	84.6	85.8	85.9	0.1 pps
	Older (55-64)	69.4	68.4	67.6	69.3	68.0	-1.3 pps
	<i>Female</i>	72.5	71.0	71.9	73.6	72.6	-1.0 pps
	Young (15-24)	32.3	28.3	29.3	32.3	31.9	-0.4 pps
	Prime age (25-54)	84.8	83.4	83.9	84.6	83.2	-1.4 pps
	Older (55-64)	67.5	66.9	68.4	70.1	69.9	-0.2 pps
6	- Employed persons (15-64, 1000 pers.)	1324.3	1297.6	1309.8	1354.4	1368.0	1.0 %
7	- Employment growth (% , National accounts)	0.6	-1.6	1.2	5.1	1.5	-3.6 pps
	Employment growth (% , 15-64, LFS)	0.0	-2.0	0.9	3.4	1.0	-2.4 pps
	<i>Male</i>	0.2	-0.9	1.6	0.6	3.2	2.6 pps
	<i>Female</i>	-0.1	-3.1	0.3	6.3	-1.1	-7.4 pps
8	- Self employed (15-64, % of total employment)	10.9	11.1	10.7	11.5	11.1	-0.4 pps
	<i>Male</i>	14.2	14.4	12.9	13.5	13.8	0.3 pps
	<i>Female</i>	7.7	7.7	8.5	9.6	8.4	-1.2 pps
9	- Temporary employment (15-64, % of total employment)	1.5	1.2	1.9	1.9	1.9	0.0 pps
	<i>Male</i>	1.5	1.4	1.9	1.8	1.9	0.1 pps
	<i>Female</i>	1.4	1.1	1.9	1.9	1.9	0.0 pps
10	- Part-time (15-64, % of total employment)	6.4	6.1	6.0	5.7	5.9	0.2 pps
	<i>Male</i>	4.7	4.8	4.3	3.9	4.0	0.1 pps
	<i>Female</i>	8.0	7.5	7.6	7.4	7.7	0.3 pps
11	- Involuntary part-time (15-64, % of total employment)	1.5	1.8	1.5	1.1	0.9	-0.2 pps
12	- Unemployment rate (harmonised:15-74)	6.3	8.5	7.1	6.0	6.9	0.9 pps
	Young (15-24)	11.9	19.6	14.3	11.9	13.8	1.9 pps
	Prime age (25-49)	5.8	7.4	6.5	5.4	6.2	0.8 pps
	Older (55-64)	6.9	9.9	8.2	6.9	8.3	1.4 pps
	Low-skilled (15-64)	18.8	23.3	16.9	16.8	18.5	1.7 pps
	Medium-skilled (15-64)	8.6	11.9	9.7	8.0	9.4	1.4 pps
	High-skilled (15-64)	3.0	4.2	4.2	3.6	3.9	0.3 pps
	Nationals (15-64)	6.5	8.9	7.4	6.2	7.1	0.9 pps
	Non-nationals (15-64)	0.0	0.0	8.5	8.1	6.5	-1.6 pps
	<i>Male</i>	7.1	9.3	7.6	6.5	7.3	0.8 pps
	<i>Female</i>	5.5	7.7	6.6	5.5	6.4	0.9 pps
13	- Long-term unemployment (% of total unemployment)	30.6	29.0	36.7	38.9	33.3	-5.6 pps
14	- Worked hours (full-time, average actual weekly hours)	39.5	39.0	39.5	39.3	39.4	0.3 %
	<i>Male</i>	39.9	39.5	39.8	39.6	39.7	0.3 %
	<i>Female</i>	38.8	38.1	39.2	39.0	38.9	-0.3 %
15	- Sectoral employment growth (% change)						
	Agriculture	-9.8	-11.7	-5.3	5.2	-6.2	-11.4 pps
	Building and construction	3.3	-4.9	3.2	14.1	1.4	-12.7 pps
	Services	2.0	-0.8	2.1	5.0	3.9	-1.1 pps
	Manufacturing industry	0.0	-1.3	5.5	-0.8	1.9	2.7 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	10.5	6.6	11.9	11.4	10.2	-1.1 pps
	Real compensation per employee based on GDP	7.5	4.7	5.0	-4.4	.	pps
	Labour cost index (compens. of employees plus taxes minus subs.)	3.0	6.1	12.3	13.7	12.5	-1.2 pps
	Labour cost index (wages and salaries, total)	38.2	9.9	10.6	13.8	12.5	-1.3 pps
	Labour productivity (GDP/person employed)	4.1	1.6	5.0	-2.5	-1.8	0.7 pps

Luxembourg		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	622	631	641	655	668	1.9 %
2	- Population (LFS, working age:15-64, 1000 pers.)	423	431	437	440	452	2.7 %
	(% of total population)	68.0	68.3	68.1	67.2	67.7	0.5 pps
3	- Labour force (15-64, 1000 pers.)	304	311	320	324	335	3.6 %
	<i>Male</i>	165	166	170	172	179	4.0 %
	<i>Female</i>	140	146	150	152	157	3.2 %
4	- Activity rate (% of population 15-64)	72.0	72.2	73.2	73.5	74.2	0.7 pps
	Young (15-24)	34.6	32.4	35.3	33.5	35.7	2.2 pps
	Prime age (25-54)	88.5	89.1	89.2	89.9	90.5	0.6 pps
	Older (55-64)	45.0	45.9	48.8	48.7	48.3	-0.4 pps
	Nationals (15-64)	66.9	67.4	69.0	69.2	69.0	-0.2 pps
	Non-nationals (15-64)	76.9	76.8	77.4	77.6	79.1	1.5 pps
	<i>Male</i>	76.4	75.4	76.4	76.4	77.5	1.1 pps
	Young (15-24)	37.9	33.8	36.2	32.0	37.9	6.0 pps
	Prime age (25-54)	92.8	92.9	92.5	92.7	93.9	1.2 pps
	Older (55-64)	51.2	49.7	54.5	56.6	53.1	-3.5 pps
	<i>Female</i>	67.4	68.7	69.9	70.4	70.7	0.3 pps
	Young (15-24)	31.5	30.9	34.4	35.1	33.3	-1.7 pps
	Prime age (25-54)	84.0	85.3	85.9	86.9	86.9	-0.1 pps
	Older (55-64)	38.5	41.8	42.8	40.4	43.3	2.9 pps
5	- Employment rate (% of population 15-64)	67.9	67.2	69.4	70.1	70.3	0.2 pps
	Young (15-24)	28.7	24.9	29.4	27.5	29.0	1.5 pps
	Prime age (25-54)	84.3	84.0	85.4	86.8	86.8	0.0 pps
	Older (55-64)	43.1	44.1	46.5	46.5	46.4	-0.2 pps
	Low-skilled (15-64)	44.2	44.0	46.5	47.1	48.7	1.5 pps
	Medium-skilled (15-64)	66.7	66.7	66.9	65.8	66.1	0.3 pps
	High-skilled (15-64)	84.7	83.2	84.1	85.0	84.4	-0.6 pps
	Nationals (15-64)	64.1	64.2	66.1	66.1	65.7	-0.4 pps
	Non-nationals (15-64)	71.6	70.2	72.5	74.0	74.7	0.7 pps
	<i>Male</i>	72.1	70.4	72.6	73.0	73.7	0.6 pps
	Young (15-24)	31.2	25.2	29.8	26.7	32.0	5.3 pps
	Prime age (25-54)	88.6	88.0	89.1	89.5	90.2	0.7 pps
	Older (55-64)	48.8	47.2	51.5	54.1	50.5	-3.6 pps
	<i>Female</i>	63.6	63.9	66.0	67.1	66.8	-0.3 pps
	Young (15-24)	26.2	24.3	28.9	28.4	25.9	-2.5 pps
	Prime age (25-54)	79.9	80.0	81.6	83.9	83.3	-0.7 pps
	Older (55-64)	37.1	40.5	41.5	38.5	42.0	3.5 pps
6	- Employed persons (15-64, 1000 pers.)	287.3	290.0	302.8	308.7	317.7	2.9 %
7	- Employment growth (% , National accounts)	3.5	1.8	2.9	3.4	2.2	-1.2 pps
	Employment growth (% , 15-64, LFS)	3.2	0.9	4.4	1.9	2.9	1.0 pps
	<i>Male</i>	4.2	-0.4	4.5	1.5	3.4	1.9 pps
	<i>Female</i>	2.2	2.5	4.4	2.4	2.4	-0.1 pps
8	- Self employed (15-64, % of total employment)	7.4	7.8	8.3	8.6	8.0	-0.6 pps
	<i>Male</i>	8.4	9.0	9.1	9.0	8.0	-1.0 pps
	<i>Female</i>	6.4	6.4	7.4	8.2	8.0	-0.3 pps
9	- Temporary employment (15-64, % of total employment)	9.2	7.7	9.2	7.3	7.5	0.2 pps
	<i>Male</i>	9.3	7.1	8.3	6.9	6.8	-0.1 pps
	<i>Female</i>	9.1	8.3	10.1	7.8	8.2	0.4 pps
10	- Part-time (15-64, % of total employment)	17.0	18.1	18.1	18.3	18.3	0.0 pps
	<i>Male</i>	5.6	6.8	7.0	7.1	8.5	1.4 pps
	<i>Female</i>	30.4	31.0	30.9	30.9	29.7	-1.2 pps
11	- Involuntary part-time (15-64, % of total employment)	2.2	2.1	1.7	1.9	1.9	0.0 pps
12	- Unemployment rate (harmonised:15-74)	5.6	6.8	5.3	4.6	5.2	0.6 pps
	Young (15-24)	17.0	23.2	16.9	17.6	18.8	1.2 pps
	Prime age (25-49)	4.7	5.7	4.3	3.4	4.1	0.7 pps
	Older (55-64)	4.1	4.1	4.6	4.4	0.0	-4.4 pps
	Low-skilled (15-64)	8.9	11.5	8.6	8.8	8.9	0.1 pps
	Medium-skilled (15-64)	6.3	6.9	5.5	4.0	5.5	1.5 pps
	High-skilled (15-64)	3.6	4.7	4.0	3.5	3.9	0.4 pps
	Nationals (15-64)	4.1	4.8	4.2	4.4	4.8	0.4 pps
	Non-nationals (15-64)	6.9	8.6	6.3	4.7	5.5	0.8 pps
	<i>Male</i>	5.7	6.6	4.9	4.5	5.0	0.5 pps
	<i>Female</i>	5.5	7.0	5.6	4.7	5.4	0.7 pps
13	- Long-term unemployment (% of total unemployment)	24.5	26.8	34.0	28.7	32.7	4.0 pps
14	- Worked hours (full-time, average actual weekly hours)	39.2	38.9	37.1	36.3	36.0	-0.8 %
	<i>Male</i>	41.2	40.5	39.6	38.9	38.4	-1.3 %
	<i>Female</i>	39.7	38.3	37.1	36.5	36.6	0.3 %
15	- Sectoral employment growth (% change)						
	Agriculture	-0.8	0.0	0.4	1.4	-0.9	-2.3 pps
	Building and construction	3.7	3.6	3.3	2.7	-0.9	-3.6 pps
	Services	3.7	1.0	2.1	4.0	2.6	-1.4 pps
	Manufacturing industry	0.3	-1.6	-1.4	1.7	-0.4	-2.1 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	1.8	1.2	5.1	5.8	7.3	1.5 pps
	Real compensation per employee based on GDP	1.0	-3.0	0.5	0.1	.	: pps
	Labour cost index (compens. of employees plus taxes minus subs.)	2.7	0.9	2.2	5.3	6.2	0.9 pps
	Labour cost index (wages and salaries, total)	2.7	0.5	2.5	5.5	6.1	0.6 pps
	Labour productivity (GDP/person employed)	-0.6	-2.6	4.2	-1.9	-3.3	-1.4 pps

Hungary		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	9771	9750	9710	9684	9590	-1.0 %
2	- Population (LFS, working age:15-64, 1000 pers.)	6327	6280	6207	6168	6158	-0.2 %
	(% of total population)	64.8	64.4	63.9	63.7	64.2	0.5 pps
3	- Labour force (15-64, 1000 pers.)	4595	4572	4728	4760	4803	0.9 %
	<i>Male</i>	2521	2518	2516	2526	2540	0.6 %
	<i>Female</i>	2074	2054	2212	2234	2263	1.3 %
4	- Activity rate (% of population 15-64)	72.6	72.8	76.2	77.2	78.0	0.8 pps
	Young (15-24)	32.2	31.2	31.8	30.8	31.4	0.6 pps
	Prime age (25-54)	87.0	86.2	90.1	91.1	91.3	0.2 pps
	Older (55-64)	58.0	61.4	64.7	67.7	71.4	3.7 pps
	Nationals (15-64)	72.6	72.8	76.2	77.2	78.1	0.9 pps
	Non-nationals (15-64)	72.4	72.5	76.4	74.5	66.2	-8.3 pps
	<i>Male</i>	80.0	80.3	81.1	81.9	82.4	0.5 pps
	Young (15-24)	37.3	35.3	35.1	34.0	35.5	1.4 pps
	Prime age (25-54)	93.4	93.1	93.6	94.3	94.2	-0.1 pps
	Older (55-64)	70.6	74.0	76.6	79.4	82.0	2.6 pps
	<i>Female</i>	65.3	65.3	71.2	72.4	73.5	1.1 pps
	Young (15-24)	26.9	26.9	28.3	27.5	27.2	-0.3 pps
	Prime age (25-54)	80.6	79.1	86.6	87.7	88.3	0.6 pps
	Older (55-64)	47.2	50.6	54.3	57.4	62.0	4.6 pps
5	- Employment rate (% of population 15-64)	70.1	69.7	73.1	74.4	74.8	0.4 pps
	Young (15-24)	28.5	27.2	27.5	27.6	27.4	-0.2 pps
	Prime age (25-54)	84.4	82.9	87.0	88.1	87.9	-0.2 pps
	Older (55-64)	56.7	59.6	62.8	65.6	69.1	3.6 pps
	Low-skilled (15-64)	39.4	37.7	39.2	38.7	39.7	1.0 pps
	Medium-skilled (15-64)	74.8	74.3	77.1	78.6	78.6	0.0 pps
	High-skilled (15-64)	85.2	85.2	89.9	91.4	91.4	0.0 pps
	Nationals (15-64)	70.1	69.7	73.1	74.4	74.9	0.5 pps
	Non-nationals (15-64)	69.2	66.5	73.7	71.2	63.4	-7.9 pps
	<i>Male</i>	77.3	77.0	77.9	78.8	79.0	0.2 pps
	Young (15-24)	32.8	31.1	30.9	30.2	30.7	0.5 pps
	Prime age (25-54)	90.8	89.8	90.4	91.3	90.9	-0.4 pps
	Older (55-64)	69.0	71.6	74.1	76.8	79.3	2.6 pps
	<i>Female</i>	63.0	62.3	68.2	69.9	70.5	0.6 pps
	Young (15-24)	24.0	23.1	23.9	24.8	23.9	-0.9 pps
	Prime age (25-54)	78.0	75.9	83.4	84.9	84.9	0.0 pps
	Older (55-64)	46.2	49.2	52.9	55.7	60.1	4.4 pps
6	- Employed persons (15-64, 1000 pers.)	4436.0	4375.8	4535.4	4586.3	4603.7	0.4 %
7	- Employment growth (% , National accounts)	1.1	-1.2	1.2	1.6	0.2	-1.4 pps
	Employment growth (% , 15-64, LFS)	0.6	-1.4	3.6	1.1	0.4	-0.7 pps
	<i>Male</i>	1.0	-0.8	0.1	0.6	0.2	-0.4 pps
	<i>Female</i>	0.1	-2.0	8.0	1.8	0.6	-1.1 pps
8	- Self employed (15-64, % of total employment)	10.1	11.2	11.6	11.7	11.3	-0.4 pps
	<i>Male</i>	12.2	13.4	13.9	14.1	13.9	-0.2 pps
	<i>Female</i>	7.5	8.6	9.0	9.0	8.3	-0.7 pps
9	- Temporary employment (15-64, % of total employment)	6.6	5.9	5.9	5.4	5.0	-0.4 pps
	<i>Male</i>	6.1	5.3	5.6	5.3	5.0	-0.3 pps
	<i>Female</i>	7.1	6.5	6.2	5.6	5.0	-0.6 pps
10	- Part-time (15-64, % of total employment)	4.4	4.8	4.6	4.2	4.0	-0.2 pps
	<i>Male</i>	2.5	2.8	2.7	2.6	2.4	-0.2 pps
	<i>Female</i>	6.8	7.3	6.7	6.0	5.9	-0.1 pps
11	- Involuntary part-time (15-64, % of total employment)	0.9	0.9	1.1	0.8	0.8	0.1 pps
12	- Unemployment rate (harmonised:15-74)	3.3	4.1	4.1	3.6	4.1	0.5 pps
	Young (15-24)	11.4	12.8	13.5	10.6	12.8	2.2 pps
	Prime age (25-49)	3.0	3.8	3.5	3.2	3.6	0.4 pps
	Older (55-64)	2.2	3.0	2.9	3.1	3.2	0.1 pps
	Low-skilled (15-64)	9.8	11.1	11.1	11.7	13.0	1.3 pps
	Medium-skilled (15-64)	3.0	4.1	4.0	3.3	3.9	0.6 pps
	High-skilled (15-64)	1.6	1.9	1.7	1.5	1.6	0.1 pps
	Nationals (15-64)	3.4	4.3	4.1	3.6	4.2	0.6 pps
	Non-nationals (15-64)	0.0	8.2	0.0	0.0	0.0	0.0 pps
	<i>Male</i>	3.4	4.1	3.9	3.7	4.1	0.4 pps
	<i>Female</i>	3.3	4.2	4.2	3.5	4.2	0.7 pps
13	- Long-term unemployment (% of total unemployment)	32.0	26.1	31.4	34.5	35.2	0.7 pps
14	- Worked hours (full-time, average actual weekly hours)	39.1	38.9	39.0	39.3	38.5	-2.0 %
	<i>Male</i>	39.5	39.2	39.3	39.6	38.9	-1.8 %
	<i>Female</i>	38.6	38.5	38.6	38.8	38.1	-1.8 %
15	- Sectoral employment growth (% change)						
	Agriculture	-2.3	1.8	-5.6	-8.0	-1.7	6.3 pps
	Building and construction	5.4	4.2	5.6	4.8	-1.5	-6.3 pps
	Services	2.0	-1.4	0.9	2.8	1.0	-1.8 pps
	Manufacturing industry	0.7	-3.8	1.5	1.5	-0.2	-1.7 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	7.0	3.1	8.2	17.0	14.0	-3.0 pps
	Real compensation per employee based on GDP	2.1	-3.2	1.7	2.4	.	. pps
	Labour cost index (compens. of employees plus taxes minus subs.)	10.1	7.1	5.9	13.1	17.3	4.2 pps
	Labour cost index (wages and salaries, total)	11.0	8.1	7.2	15.6	17.6	2.0 pps
	Labour productivity (GDP/person employed)	3.7	-3.3	5.8	3.0	-1.1	-4.1 pps

Malta	2019	2020	2021	2022	2023	2022-2023
1 - Population (LFS, total, 1000 pers.)	505	515	518	532	548	3.1 %
2 - Population (LFS, working age:15-64, 1000 pers.)	344	351	351	362	373	3.0 %
(% of total population)	68.2	68.0	67.7	68.1	68.1	0.0 pps
3 - Labour force (15-64, 1000 pers.)	258	267	271	287	301	4.9 %
Male	154	158	160	167	177	5.6 %
Female	104	109	111	120	125	3.8 %
4 - Activity rate (% of population 15-64)	74.8	76.1	77.2	79.3	80.7	1.4 pps
Young (15-24)	54.4	52.9	52.3	56.0	54.9	-1.1 pps
Prime age (25-54)	86.3	87.1	88.5	90.0	90.9	0.9 pps
Older (55-64)	50.8	53.7	52.9	54.2	57.8	3.6 pps
Nationals (15-64)	73.7	75.0	76.0	77.3	76.8	-0.5 pps
Non-nationals (15-64)	78.1	78.7	80.1	84.1	88.8	4.7 pps
Male	84.5	84.7	85.3	85.6	87.3	1.7 pps
Young (15-24)	55.1	54.5	54.0	56.8	57.1	0.3 pps
Prime age (25-54)	96.4	95.7	96.3	95.9	96.5	0.7 pps
Older (55-64)	66.1	68.3	67.2	65.6	70.5	5.0 pps
Female	64.0	66.2	67.8	71.9	72.9	0.9 pps
Young (15-24)	53.8	51.0	50.0	55.0	52.3	-2.7 pps
Prime age (25-54)	74.7	77.3	79.5	82.9	84.0	1.1 pps
Older (55-64)	35.0	38.2	38.1	42.8	44.8	2.0 pps
5 - Employment rate (% of population 15-64)	71.8	72.3	74.2	76.5	78.2	1.6 pps
Young (15-24)	48.9	46.9	47.1	51.0	49.8	-1.2 pps
Prime age (25-54)	83.1	83.5	85.8	87.3	88.6	1.2 pps
Older (55-64)	50.2	51.4	51.1	53.2	56.6	3.4 pps
Low-skilled (15-64)	61.3	61.4	62.4	64.4	64.3	0.0 pps
Medium-skilled (15-64)	72.0	71.5	73.9	76.7	79.3	2.6 pps
High-skilled (15-64)	86.5	87.4	88.2	89.4	90.6	1.2 pps
Nationals (15-64)	71.5	72.2	73.5	75.4	74.7	-0.7 pps
Non-nationals (15-64)	72.4	72.6	76.1	79.2	85.3	6.1 pps
Male	81.4	80.7	81.9	82.4	84.5	2.1 pps
Young (15-24)	48.6	46.9	47.1	50.4	50.5	0.2 pps
Prime age (25-54)	93.3	92.0	93.4	92.9	94.2	1.3 pps
Older (55-64)	65.5	66.0	64.9	63.6	68.5	5.0 pps
Female	61.0	62.7	65.4	69.7	70.7	1.0 pps
Young (15-24)	49.4	46.5	47.1	51.7	49.0	-2.7 pps
Prime age (25-54)	71.4	73.7	77.0	80.5	81.6	1.2 pps
Older (55-64)	34.0	36.2	36.4	42.1	44.1	2.0 pps
6 - Employed persons (15-64, 1000 pers.)	247.0	253.4	260.5	277.3	291.8	5.2 %
7 - Employment growth (% , National accounts)	5.7	2.8	2.9	6.0	6.7	0.7 pps
Employment growth (% , 15-64, LFS)	6.1	2.6	2.8	6.4	5.2	-1.2 pps
Male	7.6	1.6	1.9	5.0	6.1	1.1 pps
Female	3.9	4.1	4.1	8.5	4.0	-4.5 pps
8 - Self employed (15-64, % of total employment)	15.1	15.7	14.9	14.7	14.1	-0.6 pps
Male	19.0	19.9	19.2	18.7	17.1	-1.6 pps
Female	9.3	9.5	8.7	9.0	9.7	0.6 pps
9 - Temporary employment (15-64, % of total employment)	9.3	8.0	8.0	8.1	8.9	0.8 pps
Male	8.1	6.1	6.7	6.9	8.3	1.4 pps
Female	11.0	10.5	9.7	9.7	9.6	-0.1 pps
10 - Part-time (15-64, % of total employment)	12.1	11.1	10.7	10.8	10.7	-0.1 pps
Male	5.9	4.7	5.5	4.8	5.5	0.7 pps
Female	21.3	20.3	18.3	19.1	18.0	-1.1 pps
11 - Involuntary part-time (15-64, % of total employment)	1.0	0.8	1.1	0.7	0.5	-0.3 pps
12 - Unemployment rate (harmonised:15-74)	4.1	4.9	3.8	3.5	3.1	-0.4 pps
Young (15-24)	10.1	11.5	9.9	9.0	9.1	0.1 pps
Prime age (25-49)	3.7	4.2	3.0	3.0	2.6	-0.4 pps
Older (55-64)	0.0	4.0	3.6	1.9	0.0	-1.9 pps
Low-skilled (15-64)	4.9	6.6	5.4	4.4	5.0	0.6 pps
Medium-skilled (15-64)	4.3	4.8	4.4	3.4	2.9	-0.5 pps
High-skilled (15-64)	3.1	3.5	1.8	2.9	2.2	-0.7 pps
Nationals (15-64)	3.0	3.8	3.3	2.4	2.7	0.3 pps
Non-nationals (15-64)	7.3	7.8	5.0	5.8	4.0	-1.8 pps
Male	3.7	4.7	3.9	3.7	3.2	-0.5 pps
Female	4.7	5.1	3.6	3.1	2.9	-0.2 pps
13 - Long-term unemployment (% of total unemployment)	24.8	25.7	25.4	34.4	24.1	-10.3 pps
14 - Worked hours (full-time, average actual weekly hours)	41.3	39.9	39.2	39.0	38.9	-0.3 %
Male	42.9	41.4	40.3	41.0	39.1	-4.6 %
Female	39.2	37.8	38.9	38.9	37.4	-3.9 %
15 - Sectoral employment growth (% change)						
Agriculture	-0.2	1.9	4.0	2.3	3.7	1.4 pps
Building and construction	12.3	9.3	4.8	7.2	5.1	-2.1 pps
Services	7.9	2.7	2.7	8.0	8.6	0.5 pps
Manufacturing industry	0.1	-0.6	0.9	1.7	4.6	2.9 pps
16 - Indicator board on wage developments (% change)						
Compensation per employee	3.5	-1.7	4.1	3.1	1.7	-1.4 pps
Real compensation per employee based on GDP	1.2	-3.3	2.2	-2.1	.	pps
Labour cost index (compens. of employees plus taxes minus subs.)	0.3	-6.8	2.4	9.0	7.4	-1.6 pps
Labour cost index (wages and salaries, total)	0.9	3.2	0.0	3.2	4.9	1.7 pps
Labour productivity (GDP/person employed)	1.4	-10.7	9.4	1.9	-0.9	-2.8 pps

Netherlands		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	17345	17442	17533	17701	17879	1.0 %
2	- Population (LFS, working age:15-64, 1000 pers.)	11116	11160	11200	11294	11388	0.8 %
	(% of total population)	64.1	64.0	63.9	63.8	63.7	-0.1 pps
3	- Labour force (15-64, 1000 pers.)	8993	9030	9372	9569	9732	1.7 %
	<i>Male</i>	4745	4752	4900	5003	5082	1.6 %
	<i>Female</i>	4247	4278	4472	4566	4650	1.8 %
4	- Activity rate (% of population 15-64)	80.9	80.9	83.7	84.7	85.5	0.7 pps
	Young (15-24)	70.0	68.7	79.1	81.8	83.4	1.6 pps
	Prime age (25-54)	87.4	87.6	88.7	89.1	89.3	0.2 pps
	Older (55-64)	72.0	73.0	73.8	75.3	76.7	1.4 pps
	Nationals (15-64)	81.6	81.8	84.5	85.3	86.1	0.8 pps
	Non-nationals (15-64)	70.7	69.0	73.2	76.8	77.9	1.2 pps
	<i>Male</i>	85.1	84.8	87.1	88.3	89.0	0.7 pps
	Young (15-24)	69.7	67.7	76.8	81.7	83.7	2.0 pps
	Prime age (25-54)	91.5	91.5	92.2	92.6	92.7	0.0 pps
	Older (55-64)	81.0	81.5	82.1	82.1	83.4	1.3 pps
	<i>Female</i>	76.7	77.0	80.2	81.1	81.9	0.8 pps
	Young (15-24)	70.3	69.9	81.4	81.8	83.0	1.2 pps
	Prime age (25-54)	83.3	83.7	85.1	85.5	85.9	0.4 pps
	Older (55-64)	63.1	64.4	65.6	68.5	70.1	1.6 pps
5	- Employment rate (% of population 15-64)	78.2	77.8	80.1	81.8	82.4	0.7 pps
	Young (15-24)	65.3	62.5	71.7	75.5	76.5	1.0 pps
	Prime age (25-54)	85.2	85.1	85.9	86.8	87.0	0.2 pps
	Older (55-64)	69.7	71.0	71.4	73.1	75.0	1.8 pps
	Low-skilled (15-64)	61.3	60.2	65.5	67.9	69.4	1.4 pps
	Medium-skilled (15-64)	80.2	79.2	81.5	83.1	83.8	0.7 pps
	High-skilled (15-64)	88.6	88.4	88.4	89.1	89.5	0.4 pps
	Nationals (15-64)	79.1	78.8	81.1	82.4	83.2	0.8 pps
	Non-nationals (15-64)	66.1	63.9	66.8	72.4	72.4	0.0 pps
	<i>Male</i>	82.2	81.6	83.6	85.4	86.0	0.5 pps
	Young (15-24)	64.7	61.4	69.4	75.7	76.8	1.1 pps
	Prime age (25-54)	89.3	89.0	89.7	90.5	90.5	0.0 pps
	Older (55-64)	78.3	79.4	79.4	80.1	81.7	1.7 pps
	<i>Female</i>	74.1	73.9	76.6	78.1	78.9	0.8 pps
	Young (15-24)	66.0	63.6	74.1	75.3	76.2	0.9 pps
	Prime age (25-54)	81.1	81.2	82.1	83.2	83.5	0.3 pps
	Older (55-64)	61.2	62.6	63.5	66.3	68.2	2.0 pps
6	- Employed persons (15-64, 1000 pers.)	8689.2	8681.0	8975.1	9233.9	9386.9	1.7 %
7	- Employment growth (% , National accounts)	2.3	-0.5	1.7	3.9	1.6	-2.3 pps
	Employment growth (% , 15-64, LFS)	1.7	-0.1	3.4	2.9	1.7	-1.2 pps
	<i>Male</i>	1.4	-0.2	2.8	2.9	1.5	-1.5 pps
	<i>Female</i>	2.1	0.1	4.0	2.9	1.9	-1.0 pps
8	- Self employed (15-64, % of total employment)	15.4	15.8	14.3	14.9	15.2	0.2 pps
	<i>Male</i>	18.4	18.9	17.8	18.0	18.3	0.4 pps
	<i>Female</i>	12.0	12.4	10.6	11.5	11.6	0.1 pps
9	- Temporary employment (15-64, % of total employment)	20.2	18.0	27.4	27.7	27.3	-0.4 pps
	<i>Male</i>	19.0	17.0	25.6	25.8	25.3	-0.5 pps
	<i>Female</i>	21.4	19.0	29.2	29.6	29.4	-0.2 pps
10	- Part-time (15-64, % of total employment)	50.2	50.8	42.7	42.6	42.8	0.2 pps
	<i>Male</i>	27.9	28.6	22.5	23.5	23.8	0.3 pps
	<i>Female</i>	75.2	75.5	65.0	63.8	63.7	-0.1 pps
11	- Involuntary part-time (15-64, % of total employment)	2.7	3.0	1.6	1.2	0.9	-0.3 pps
12	- Unemployment rate (harmonised:15-74)	4.4	4.9	4.2	3.5	3.6	0.1 pps
	Young (15-24)	6.7	9.1	9.3	7.6	8.2	0.6 pps
	Prime age (25-49)	2.6	2.9	3.1	2.5	2.5	0.0 pps
	Older (55-64)	3.2	2.7	3.3	2.8	2.3	-0.5 pps
	Low-skilled (15-64)	5.9	7.0	7.2	5.8	5.9	0.1 pps
	Medium-skilled (15-64)	3.2	3.7	4.0	3.3	3.2	-0.1 pps
	High-skilled (15-64)	2.2	2.6	2.9	2.7	2.7	0.0 pps
	Nationals (15-64)	3.1	3.6	3.9	3.4	3.3	-0.1 pps
	Non-nationals (15-64)	6.6	7.4	8.7	5.7	7.1	1.4 pps
	<i>Male</i>	4.3	4.6	4.0	3.3	3.4	0.1 pps
	<i>Female</i>	4.5	5.1	4.5	3.8	3.8	0.0 pps
13	- Long-term unemployment (% of total unemployment)	30.1	23.4	19.6	18.4	13.4	-5.0 pps
14	- Worked hours (full-time, average actual weekly hours)	41.2	40.3	37.9	38.0	37.6	-1.1 %
	<i>Male</i>	41.7	40.8	39.2	39.2	38.8	-1.0 %
	<i>Female</i>	39.4	38.5	35.2	35.4	35.2	-0.6 %
15	- Sectoral employment growth (% change)						
	Agriculture	0.0	0.5	0.5	0.0	-2.0	-2.0 pps
	Building and construction	5.1	2.1	4.4	4.9	3.0	-1.9 pps
	Services	1.6	-2.5	1.4	4.7	1.1	-3.6 pps
	Manufacturing industry	2.7	0.3	0.3	2.5	2.4	-0.1 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	3.1	4.1	2.7	3.6	6.3	2.6 pps
	Real compensation per employee based on GDP	-0.2	2.4	-0.8	-1.5	.	. pps
	Labour cost index (compens. of employees plus taxes minus subs.)	2.5	2.6	1.5	6.5	6.9	0.4 pps
	Labour cost index (wages and salaries, total)	2.1	6.0	0.9	4.0	6.9	2.9 pps
	Labour productivity (GDP/person employed)	0.0	-3.4	4.5	1.1	-1.5	-2.6 pps

Austria		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	8878	8917	8952	9053	9131	0.9 %
2	- Population (LFS, working age:15-64, 1000 pers.)	5819	5835	5845	5887	5929	0.7 %
	(% of total population)	65.5	65.4	65.3	65.0	64.9	-0.1 pps
3	- Labour force (15-64, 1000 pers.)	4484	4467	4515	4577	4634	1.2 %
	<i>Male</i>	2378	2362	2395	2420	2448	1.1 %
	<i>Female</i>	2106	2105	2119	2157	2186	1.3 %
4	- Activity rate (% of population 15-64)	77.1	76.6	77.2	77.8	78.2	0.4 pps
	Young (15-24)	56.4	56.1	56.3	57.4	59.2	1.9 pps
	Prime age (25-54)	89.0	88.3	89.0	89.6	89.5	-0.1 pps
	Older (55-64)	56.4	57.0	58.4	58.6	59.8	1.2 pps
	Nationals (15-64)	77.8	77.2	77.6	78.1	78.7	0.6 pps
	Non-nationals (15-64)	73.7	73.8	75.7	76.4	76.3	-0.1 pps
	<i>Male</i>	81.8	81.0	81.9	82.1	82.4	0.3 pps
	Young (15-24)	60.3	59.5	61.2	61.4	62.7	1.2 pps
	Prime age (25-54)	92.4	91.4	92.3	92.6	92.2	-0.4 pps
	Older (55-64)	65.6	65.5	66.4	66.8	68.8	2.0 pps
	<i>Female</i>	72.3	72.1	72.6	73.4	73.9	0.5 pps
	Young (15-24)	52.5	52.8	51.5	53.2	55.7	2.5 pps
	Prime age (25-54)	85.7	85.1	85.6	86.6	86.8	0.2 pps
	Older (55-64)	47.4	48.8	50.7	50.5	50.9	0.4 pps
5	- Employment rate (% of population 15-64)	73.6	72.4	72.4	74.0	74.1	0.1 pps
	Young (15-24)	51.6	50.2	50.1	51.9	53.1	1.1 pps
	Prime age (25-54)	85.3	83.9	83.8	85.7	85.4	-0.3 pps
	Older (55-64)	54.5	54.7	55.4	56.4	57.3	0.9 pps
	Low-skilled (15-64)	48.2	47.5	47.6	48.2	49.1	0.9 pps
	Medium-skilled (15-64)	76.1	74.1	73.8	76.1	75.7	-0.3 pps
	High-skilled (15-64)	84.7	84.6	84.7	85.7	85.6	-0.1 pps
	Nationals (15-64)	75.0	74.1	73.8	75.2	75.6	0.4 pps
	Non-nationals (15-64)	67.0	65.3	66.7	69.5	68.7	-0.8 pps
	<i>Male</i>	78.0	76.5	76.7	78.0	77.9	-0.1 pps
	Young (15-24)	54.8	52.7	54.6	55.6	56.3	0.7 pps
	Prime age (25-54)	88.5	86.9	86.9	88.5	87.8	-0.7 pps
	Older (55-64)	63.1	62.7	62.7	63.9	65.4	1.5 pps
	<i>Female</i>	69.2	68.3	68.1	70.0	70.3	0.2 pps
	Young (15-24)	48.4	47.8	45.7	48.2	49.8	1.6 pps
	Prime age (25-54)	82.1	80.8	80.7	83.0	83.0	0.0 pps
	Older (55-64)	46.0	47.0	48.3	49.0	49.4	0.4 pps
6	- Employed persons (15-64, 1000 pers.)	4280.2	4224.0	4231.7	4357.2	4394.3	0.9 %
7	- Employment growth (% , National accounts)	1.1	-1.6	2.0	2.6	0.9	-1.7 pps
	Employment growth (% , 15-64, LFS)	0.9	-1.3	0.2	3.0	0.9	-2.1 pps
	<i>Male</i>	0.8	-1.6	0.6	2.5	0.7	-1.8 pps
	<i>Female</i>	1.0	-1.0	-0.3	3.5	1.0	-2.5 pps
8	- Self employed (15-64, % of total employment)	10.6	10.5	10.0	10.4	10.4	0.0 pps
	<i>Male</i>	12.9	12.7	12.2	12.5	12.7	0.1 pps
	<i>Female</i>	8.1	7.9	7.6	8.0	8.0	-0.1 pps
9	- Temporary employment (15-64, % of total employment)	8.7	8.2	8.8	8.7	9.0	0.3 pps
	<i>Male</i>	8.5	8.3	9.0	8.9	9.2	0.3 pps
	<i>Female</i>	8.9	8.1	8.7	8.6	8.8	0.2 pps
10	- Part-time (15-64, % of total employment)	27.2	27.2	28.7	29.7	30.1	0.4 pps
	<i>Male</i>	9.5	9.7	10.5	11.3	12.2	0.9 pps
	<i>Female</i>	47.1	46.9	49.2	50.3	50.1	-0.2 pps
11	- Involuntary part-time (15-64, % of total employment)	2.4	2.5	2.6	2.3	2.0	-0.3 pps
12	- Unemployment rate (harmonised:15-74)	4.8	6.0	6.2	4.8	5.1	0.3 pps
	Young (15-24)	8.5	10.5	11.0	9.5	10.4	0.9 pps
	Prime age (25-49)	4.2	5.0	5.8	4.3	4.6	0.3 pps
	Older (55-64)	3.4	4.0	5.2	3.7	4.1	0.4 pps
	Low-skilled (15-64)	10.8	12.5	14.0	11.6	12.0	0.4 pps
	Medium-skilled (15-64)	4.0	5.0	5.8	4.2	4.7	0.5 pps
	High-skilled (15-64)	3.0	3.4	4.1	3.2	3.4	0.2 pps
	Nationals (15-64)	3.6	4.1	4.9	3.7	3.9	0.2 pps
	Non-nationals (15-64)	9.1	11.6	11.9	9.1	9.9	0.8 pps
	<i>Male</i>	5.1	6.1	6.3	4.9	5.3	0.4 pps
	<i>Female</i>	4.6	5.9	6.1	4.5	4.9	0.4 pps
13	- Long-term unemployment (% of total unemployment)	25.1	24.5	31.5	25.3	22.3	-3.0 pps
14	- Worked hours (full-time, average actual weekly hours)	40.8	38.8	38.7	38.8	38.7	-0.3 %
	<i>Male</i>	42.6	40.4	40.2	40.2	39.7	-1.2 %
	<i>Female</i>	39.3	37.3	37.4	37.7	37.7	0.0 %
15	- Sectoral employment growth (% change)						
	Agriculture	-4.9	1.9	2.7	-3.0	-7.2	-4.2 pps
	Building and construction	2.9	0.5	4.3	1.3	-0.1	-1.4 pps
	Services	1.5	-3.6	2.1	4.3	1.2	-3.1 pps
	Manufacturing industry	1.6	-0.9	0.4	1.3	1.3	0.0 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	2.8	1.7	2.9	4.7	7.7	3.0 pps
	Real compensation per employee based on GDP	1.2	-1.0	0.8	-0.5	.	: pps
	Labour cost index (compens. of employees plus taxes minus subs.)	2.6	5.9	0.5	5.4	7.6	2.2 pps
	Labour cost index (wages and salaries, total)	2.9	6.1	0.6	5.3	7.8	2.5 pps
	Labour productivity (GDP/person employed)	0.4	-5.1	2.2	2.1	-1.7	-3.8 pps

Poland		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	38386	38354	38162	37827	37698	-0.3 %
2	- Population (LFS, working age:15-64, 1000 pers.)	24177	24070	23780	23516	23301	-0.9 %
	(% of total population)	63.0	62.8	62.3	62.2	61.8	-0.4 pps
3	- Labour force (15-64, 1000 pers.)	17113	17106	17340	17318	17363	0.3 %
	<i>Male</i>	9425	9447	9476	9393	9355	-0.4 %
	<i>Female</i>	7688	7659	7864	7925	8008	1.0 %
4	- Activity rate (% of population 15-64)	70.8	71.1	72.9	73.6	74.5	0.9 pps
	Young (15-24)	35.2	32.0	31.3	31.7	32.4	0.7 pps
	Prime age (25-54)	85.5	85.8	87.5	87.9	88.6	0.6 pps
	Older (55-64)	50.7	53.0	56.1	57.6	59.2	1.6 pps
	Nationals (15-64)	70.7	71.0	72.9	73.6	74.4	0.8 pps
	Non-nationals (15-64)	80.6	80.6	86.0	82.3	80.9	-1.4 pps
	<i>Male</i>	77.9	78.4	79.6	79.7	80.1	0.4 pps
	Young (15-24)	39.0	36.1	35.8	36.1	36.1	0.0 pps
	Prime age (25-54)	91.6	92.1	92.6	92.2	92.6	0.4 pps
	Older (55-64)	62.6	65.4	69.3	71.0	71.7	0.8 pps
	<i>Female</i>	63.7	63.7	66.3	67.5	68.9	1.4 pps
	Young (15-24)	31.1	27.7	26.6	27.1	28.4	1.4 pps
	Prime age (25-54)	79.3	79.3	82.4	83.6	84.5	0.9 pps
	Older (55-64)	39.8	41.8	44.1	45.4	47.8	2.3 pps
5	- Employment rate (% of population 15-64)	68.5	68.8	70.4	71.5	72.4	0.9 pps
	Young (15-24)	31.7	28.5	27.6	28.3	28.7	0.4 pps
	Prime age (25-54)	83.1	83.4	85.0	85.7	86.5	0.7 pps
	Older (55-64)	49.5	51.9	54.7	56.5	58.1	1.6 pps
	Low-skilled (15-64)	24.8	24.1	24.7	24.4	23.0	-1.3 pps
	Medium-skilled (15-64)	68.7	68.9	70.6	72.1	72.1	0.0 pps
	High-skilled (15-64)	88.1	88.1	90.0	90.4	90.7	0.3 pps
	Nationals (15-64)	68.4	68.7	70.4	71.4	72.3	0.9 pps
	Non-nationals (15-64)	75.8	76.7	82.3	77.2	77.4	0.1 pps
	<i>Male</i>	75.5	75.9	76.8	77.4	77.8	0.4 pps
	Young (15-24)	35.3	32.4	31.7	32.3	31.9	-0.4 pps
	Prime age (25-54)	89.3	89.7	90.0	90.0	90.5	0.5 pps
	Older (55-64)	61.0	63.7	67.4	69.5	70.3	0.7 pps
	<i>Female</i>	61.4	61.6	64.0	65.5	66.9	1.4 pps
	Young (15-24)	28.1	24.5	23.3	24.0	25.3	1.3 pps
	Prime age (25-54)	76.6	77.0	79.9	81.4	82.4	1.0 pps
	Older (55-64)	39.0	41.1	43.2	44.7	47.0	2.3 pps
6	- Employed persons (15-64, 1000 pers.)	16549.3	16557.0	16742.9	16811.0	16865.1	0.3 %
7	- Employment growth (% National accounts)	0.0	0.0	2.5	3.9	0.1	-3.8 pps
	Employment growth (% 15-64, LFS)	2.6	0.0	1.1	0.4	0.3	-0.1 pps
	<i>Male</i>	3.2	0.2	0.0	-0.3	-0.3	0.0 pps
	<i>Female</i>	1.8	-0.1	2.5	1.3	1.1	-0.2 pps
8	- Self employed (15-64, % of total employment)	17.4	17.8	17.9	18.2	18.6	0.4 pps
	<i>Male</i>	21.5	22.4	22.3	22.6	23.5	0.9 pps
	<i>Female</i>	12.3	12.1	12.6	12.9	12.8	-0.1 pps
9	- Temporary employment (15-64, % of total employment)	21.7	18.5	14.9	15.3	15.3	0.0 pps
	<i>Male</i>	20.6	17.5	14.5	14.4	14.2	-0.2 pps
	<i>Female</i>	22.9	19.6	15.4	16.3	16.3	0.0 pps
10	- Part-time (15-64, % of total employment)	6.1	5.9	5.3	5.4	5.7	0.3 pps
	<i>Male</i>	3.6	3.4	3.3	3.4	3.4	0.0 pps
	<i>Female</i>	9.3	9.0	7.6	7.8	8.4	0.6 pps
11	- Involuntary part-time (15-64, % of total employment)	0.9	0.8	0.8	0.6	0.7	0.0 pps
12	- Unemployment rate (harmonised:15-74)	3.3	3.2	3.4	2.9	2.8	-0.1 pps
	Young (15-24)	9.7	10.8	11.9	10.8	11.4	0.6 pps
	Prime age (25-49)	2.9	2.8	2.9	2.5	2.4	-0.1 pps
	Older (55-64)	2.4	2.1	2.4	1.8	1.8	0.0 pps
	Low-skilled (15-64)	8.6	8.8	8.4	8.1	7.1	-1.0 pps
	Medium-skilled (15-64)	3.6	3.5	4.1	3.5	3.7	0.2 pps
	High-skilled (15-64)	2.0	2.0	1.8	1.4	1.3	-0.1 pps
	Nationals (15-64)	3.3	3.2	3.4	2.9	2.8	-0.1 pps
	Non-nationals (15-64)	6.0	0.0	0.0	0.0	4.3	4.3 pps
	<i>Male</i>	3.0	3.1	3.4	2.8	2.8	0.0 pps
	<i>Female</i>	3.6	3.3	3.4	2.9	2.9	0.0 pps
13	- Long-term unemployment (% of total unemployment)	21.3	19.8	26.4	30.0	26.9	-3.1 pps
14	- Worked hours (full-time, average actual weekly hours)	40.1	39.7	40.7	40.5	40.3	-0.5 %
	<i>Male</i>	41.1	40.5	41.6	41.2	41.1	-0.2 %
	<i>Female</i>	38.7	38.4	39.5	39.4	39.2	-0.5 %
15	- Sectoral employment growth (% change)						
	Agriculture	-5.1	4.5	-2.9	-1.5	-4.1	-2.6 pps
	Building and construction	4.9	1.3	1.4	1.3	-4.0	-5.3 pps
	Services	1.1	-1.4	4.7	5.5	2.5	-3.0 pps
	Manufacturing industry	-1.7	-4.0	-0.8	4.0	-3.5	-7.5 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	8.6	5.3	4.7	9.1	13.4	4.3 pps
	Real compensation per employee based on GDP	5.5	1.0	-0.6	-1.4	.	. pps
	Labour cost index (compens. of employees plus taxes minus subs.)	6.2	5.2	7.9	12.9	12.1	-0.8 pps
	Labour cost index (wages and salaries, total)	6.2	5.2	7.9	12.8	12.1	-0.7 pps
	Labour productivity (GDP/person employed)	4.5	-2.0	4.3	1.7	0.0	-1.7 pps

Portugal		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	10286	10297	10295	10299	10318	0.2 %
2	- Population (LFS, working age:15-64, 1000 pers.)	6603	6603	6592	6554	6571	0.3 %
	(% of total population)	64.2	64.1	64.0	63.6	63.7	0.0 pps
3	- Labour force (15-64, 1000 pers.)	4987	4896	4934	4995	5102	2.1 %
	<i>Male</i>	2495	2442	2468	2480	2538	2.3 %
	<i>Female</i>	2493	2454	2466	2515	2564	2.0 %
4	- Activity rate (% of population 15-64)	75.5	74.1	74.9	76.2	77.6	1.4 pps
	Young (15-24)	34.3	30.3	30.4	31.6	35.3	3.8 pps
	Prime age (25-54)	90.3	89.4	90.1	91.0	91.5	0.5 pps
	Older (55-64)	64.4	64.1	65.8	68.6	71.0	2.4 pps
	Nationals (15-64)	75.4	74.0	74.8	76.1	77.5	1.4 pps
	Non-nationals (15-64)	80.0	78.4	79.8	81.4	80.3	-1.1 pps
	<i>Male</i>	78.3	76.8	77.5	78.5	79.9	1.3 pps
	Young (15-24)	36.0	32.4	33.0	33.7	37.1	3.4 pps
	Prime age (25-54)	92.7	91.8	91.9	93.0	93.7	0.7 pps
	Older (55-64)	70.9	70.0	72.5	73.6	75.0	1.3 pps
	<i>Female</i>	72.9	71.6	72.4	74.0	75.6	1.5 pps
	Young (15-24)	32.4	28.2	27.7	29.4	33.5	4.0 pps
	Prime age (25-54)	88.0	87.2	88.3	89.1	89.4	0.3 pps
	Older (55-64)	58.8	59.0	60.0	64.2	67.5	3.3 pps
5	- Employment rate (% of population 15-64)	70.5	68.9	69.7	71.4	72.5	1.1 pps
	Young (15-24)	28.0	23.5	23.3	25.5	28.2	2.6 pps
	Prime age (25-54)	85.2	84.1	84.9	86.0	86.4	0.3 pps
	Older (55-64)	60.4	60.4	62.3	65.1	67.1	2.0 pps
	Low-skilled (15-64)	61.2	60.1	60.2	60.7	61.5	0.7 pps
	Medium-skilled (15-64)	73.3	69.4	69.4	72.1	73.7	1.5 pps
	High-skilled (15-64)	85.5	84.5	86.0	87.2	87.5	0.3 pps
	Nationals (15-64)	70.5	68.9	69.7	71.4	72.6	1.2 pps
	Non-nationals (15-64)	70.7	68.3	71.4	71.3	70.8	-0.5 pps
	<i>Male</i>	73.6	71.5	72.5	73.9	74.8	0.8 pps
	Young (15-24)	30.4	25.6	26.1	27.6	29.5	1.8 pps
	Prime age (25-54)	88.1	86.7	87.2	88.3	88.9	0.6 pps
	Older (55-64)	66.5	65.4	68.2	70.5	71.2	0.7 pps
	<i>Female</i>	67.6	66.4	67.1	69.0	70.3	1.3 pps
	Young (15-24)	25.5	21.3	20.4	23.4	26.8	3.5 pps
	Prime age (25-54)	82.5	81.7	82.8	83.9	84.0	0.1 pps
	Older (55-64)	55.1	56.0	57.1	60.4	63.6	3.2 pps
6	- Employed persons (15-64, 1000 pers.)	4652.9	4549.5	4595.8	4679.3	4761.7	1.8 %
7	- Employment growth (% , National accounts)	0.8	-1.8	2.0	1.5	0.9	-0.6 pps
	Employment growth (% , 15-64, LFS)	0.8	-2.2	1.0	1.8	1.8	-0.1 pps
	<i>Male</i>	0.7	-3.0	1.5	1.2	1.8	0.6 pps
	<i>Female</i>	1.0	-1.5	0.5	2.4	1.7	-0.7 pps
8	- Self employed (15-64, % of total employment)	13.6	13.3	13.2	12.9	12.6	-0.3 pps
	<i>Male</i>	16.6	16.2	16.0	15.8	15.0	-0.8 pps
	<i>Female</i>	10.5	10.5	10.4	10.1	10.2	0.1 pps
9	- Temporary employment (15-64, % of total employment)	20.8	17.8	17.1	16.6	17.4	0.8 pps
	<i>Male</i>	20.6	17.5	16.8	16.5	17.0	0.5 pps
	<i>Female</i>	21.1	18.2	17.3	16.7	17.8	1.1 pps
10	- Part-time (15-64, % of total employment)	8.1	7.5	6.9	6.8	7.2	0.4 pps
	<i>Male</i>	5.4	4.9	4.7	4.5	4.6	0.1 pps
	<i>Female</i>	10.9	10.2	9.2	9.1	9.8	0.7 pps
11	- Involuntary part-time (15-64, % of total employment)	3.5	3.4	2.9	2.7	2.8	0.1 pps
12	- Unemployment rate (harmonised:15-74)	6.7	7.0	6.7	6.2	6.5	0.3 pps
	Young (15-24)	18.3	22.5	23.5	19.1	20.3	1.2 pps
	Prime age (25-49)	5.7	6.0	5.7	5.4	5.6	0.2 pps
	Older (55-64)	6.2	5.9	5.4	5.1	5.4	0.3 pps
	Low-skilled (15-64)	7.2	6.9	7.0	7.2	7.6	0.4 pps
	Medium-skilled (15-64)	7.3	8.5	8.2	7.0	7.6	0.6 pps
	High-skilled (15-64)	5.4	5.9	5.4	4.6	4.7	0.1 pps
	Nationals (15-64)	6.5	6.9	6.8	6.1	6.4	0.3 pps
	Non-nationals (15-64)	11.7	12.9	10.5	12.5	11.8	-0.7 pps
	<i>Male</i>	6.0	6.8	6.4	5.7	6.2	0.5 pps
	<i>Female</i>	7.3	7.2	7.1	6.7	6.9	0.2 pps
13	- Long-term unemployment (% of total unemployment)	42.2	33.0	43.5	45.0	37.3	-7.7 pps
14	- Worked hours (full-time, average actual weekly hours)	40.2	39.2	39.6	39.7	39.4	-0.8 %
	<i>Male</i>	41.3	40.1	40.3	40.3	40.0	-0.7 %
	<i>Female</i>	38.9	38.0	38.3	38.2	38.1	-0.3 %
15	- Sectoral employment growth (% change)						
	Agriculture	-8.2	-0.4	-2.8	-4.5	-7.7	-3.2 pps
	Building and construction	4.8	2.1	5.6	1.9	3.9	2.0 pps
	Services	2.4	-3.6	2.7	3.0	1.8	-1.2 pps
	Manufacturing industry	-0.6	-3.0	0.8	0.3	0.5	0.2 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	4.8	1.5	5.1	5.7	8.4	2.7 pps
	Real compensation per employee based on GDP	2.9	-0.5	3.1	0.7	.	: pps
	Labour cost index (compens. of employees plus taxes minus subs.)	1.1	7.6	2.0	5.1	5.6	0.5 pps
	Labour cost index (wages and salaries, total)	1.0	8.5	1.3	4.8	5.3	0.5 pps
	Labour productivity (GDP/person employed)	1.9	-6.6	3.7	5.2	1.4	-3.8 pps

Romania		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	19394	19296	19126	19053	19055	0.0 %
2	- Population (LFS, working age:15-64, 1000 pers.)	12774	12611	12385	12256	12076	-1.5 %
	(% of total population)	65.9	65.4	64.8	64.3	63.4	-0.9 pps
3	- Labour force (15-64, 1000 pers.)	8761	8723	8125	8191	8067	-1.5 %
	<i>Male</i>	5049	5040	4752	4733	4638	-2.0 %
	<i>Female</i>	3712	3683	3373	3458	3429	-0.8 %
4	- Activity rate (% of population 15-64)	68.6	69.2	65.6	66.8	66.8	0.0 pps
	Young (15-24)	29.6	29.7	26.8	25.5	23.9	-1.6 pps
	Prime age (25-54)	84.1	84.3	80.6	82.1	82.0	-0.1 pps
	Older (55-64)	48.9	50.2	45.6	48.4	53.1	4.7 pps
	Nationals (15-64)	68.6	69.2	65.6	66.8	66.8	0.0 pps
	Non-nationals (15-64)	0.0	0.0	60.9	68.2	70.6	2.5 pps
	<i>Male</i>	78.0	78.7	75.6	76.1	76.3	0.1 pps
	Young (15-24)	35.7	35.5	32.9	31.6	29.9	-1.7 pps
	Prime age (25-54)	93.1	93.6	90.7	91.3	91.3	0.0 pps
	Older (55-64)	61.6	62.5	57.9	60.4	65.4	5.0 pps
	<i>Female</i>	58.9	59.3	55.3	57.3	57.2	-0.1 pps
	Young (15-24)	23.3	23.6	20.4	19.0	17.6	-1.5 pps
	Prime age (25-54)	74.6	74.5	70.0	72.4	72.3	-0.2 pps
	Older (55-64)	37.3	38.8	34.1	37.2	41.9	4.7 pps
5	- Employment rate (% of population 15-64)	65.8	65.6	61.9	63.1	63.0	0.0 pps
	Young (15-24)	24.7	24.6	21.2	19.7	18.7	-1.0 pps
	Prime age (25-54)	81.4	80.6	76.9	78.3	78.1	-0.2 pps
	Older (55-64)	47.8	48.5	43.8	46.7	51.0	4.4 pps
	Low-skilled (15-64)	44.4	43.4	34.7	36.6	36.9	0.3 pps
	Medium-skilled (15-64)	68.6	68.1	64.3	64.6	65.6	0.9 pps
	High-skilled (15-64)	89.2	88.8	88.4	89.5	89.8	0.3 pps
	Nationals (15-64)	65.8	65.6	61.9	63.1	63.0	0.0 pps
	Non-nationals (15-64)	0.0	0.0	59.2	65.9	64.7	-1.2 pps
	<i>Male</i>	74.6	74.4	71.1	71.5	71.7	0.2 pps
	Young (15-24)	29.8	29.2	26.0	24.8	23.4	-1.3 pps
	Prime age (25-54)	89.7	89.3	86.2	86.7	86.7	0.1 pps
	Older (55-64)	60.1	60.4	55.4	58.0	62.8	4.8 pps
	<i>Female</i>	56.8	56.5	52.5	54.4	54.3	-0.1 pps
	Young (15-24)	19.3	19.7	16.1	14.3	13.7	-0.7 pps
	Prime age (25-54)	72.7	71.4	67.1	69.5	69.1	-0.4 pps
	Older (55-64)	36.5	37.5	33.0	36.1	40.3	4.2 pps
6	- Employed persons (15-64, 1000 pers.)	8407.9	8272.2	7667.6	7728.3	7613.5	-1.5 %
7	- Employment growth (% , National accounts)	0.1	-2.1	0.8	0.1	-0.9	-1.0 pps
	Employment growth (% , 15-64, LFS)	0.3	-1.6	-7.3	0.8	-1.5	-2.3 pps
	<i>Male</i>	0.7	-1.2	-6.3	-0.4	-1.9	-1.5 pps
	<i>Female</i>	-0.2	-2.2	-8.6	2.5	-0.9	-3.4 pps
8	- Self employed (15-64, % of total employment)	15.2	15.1	11.6	11.5	11.1	-0.4 pps
	<i>Male</i>	19.6	19.4	15.3	15.2	14.7	-0.5 pps
	<i>Female</i>	9.4	9.3	6.5	6.4	6.2	-0.3 pps
9	- Temporary employment (15-64, % of total employment)	1.4	1.2	2.4	2.2	2.5	0.3 pps
	<i>Male</i>	1.7	1.6	3.3	3.0	3.4	0.4 pps
	<i>Female</i>	1.0	0.8	1.1	1.0	1.3	0.3 pps
10	- Part-time (15-64, % of total employment)	6.1	5.9	3.7	3.3	3.4	0.1 pps
	<i>Male</i>	6.0	5.8	4.1	3.7	3.8	0.1 pps
	<i>Female</i>	6.2	6.0	3.0	2.8	2.9	0.1 pps
11	- Involuntary part-time (15-64, % of total employment)	3.4	3.4	2.4	2.0	2.0	0.0 pps
12	- Unemployment rate (harmonised:15-74)	4.9	6.1	5.6	5.6	5.6	0.0 pps
	Young (15-24)	16.8	17.3	21.0	22.8	21.8	-1.0 pps
	Prime age (25-49)	3.2	4.4	4.6	4.6	4.7	0.1 pps
	Older (55-64)	2.4	3.4	3.9	3.7	3.9	0.2 pps
	Low-skilled (15-64)	7.0	9.0	14.0	14.6	14.9	0.3 pps
	Medium-skilled (15-64)	4.0	5.2	5.1	5.2	4.9	-0.3 pps
	High-skilled (15-64)	1.6	2.2	2.1	1.7	1.6	-0.1 pps
	Nationals (15-64)	4.0	5.2	5.6	5.7	5.6	-0.1 pps
	Non-nationals (15-64)	0.0	0.0	0.0	0.0	0.0	0.0 pps
	<i>Male</i>	5.3	6.3	6.0	6.0	5.9	-0.1 pps
	<i>Female</i>	4.3	5.7	5.1	5.1	5.1	0.0 pps
13	- Long-term unemployment (% of total unemployment)	42.5	29.9	36.5	38.5	38.5	0.0 pps
14	- Worked hours (full-time, average actual weekly hours)	40.3	39.5	40.4	40.2	40.0	-0.5 %
	<i>Male</i>	40.2	39.8	40.5	40.5	40.2	-0.7 %
	<i>Female</i>	39.9	39.4	39.8	39.7	39.5	-0.5 %
15	- Sectoral employment growth (% change)						
	Agriculture	-4.2	-5.2	0.1	-4.2	1.3	5.5 pps
	Building and construction	6.1	2.7	3.2	0.3	2.8	2.5 pps
	Services	1.9	0.6	2.1	1.8	-0.7	-2.5 pps
	Manufacturing industry	-1.9	-6.4	-0.2	1.3	-1.0	-2.3 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	10.9	4.0	6.4	13.3	18.2	4.9 pps
	Real compensation per employee based on GDP	3.9	-0.1	0.9	0.1	.	. pps
	Labour cost index (compens. of employees plus taxes minus subs.)	12.3	8.1	5.9	14.2	17.3	3.1 pps
	Labour cost index (wages and salaries, total)	12.3	7.8	6.0	14.5	17.3	2.8 pps
	Labour productivity (GDP/person employed)	3.7	-1.7	4.9	4.0	3.0	-1.0 pps

Slovenia		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	2089	2103	2108	2109	2120	0.6 %
2	- Population (LFS, working age:15-64, 1000 pers.)	1350	1362	1336	1322	1338	1.3 %
	(% of total population)	64.6	64.7	63.4	62.7	63.1	0.4 pps
3	- Labour force (15-64, 1000 pers.)	1015	1016	1002	1007	1007	0.0 %
	Male	546	547	540	544	546	0.4 %
	Female	469	469	462	463	461	-0.5 %
4	- Activity rate (% of population 15-64)	75.2	74.6	75.0	76.2	75.2	-1.0 pps
	Young (15-24)	36.2	31.5	33.9	35.9	36.2	0.3 pps
	Prime age (25-54)	92.4	92.4	92.2	92.9	92.1	-0.8 pps
	Older (55-64)	50.9	52.4	54.9	57.4	56.2	-1.1 pps
	Nationals (15-64)	75.2	74.4	75.0	76.1	74.9	-1.2 pps
	Non-nationals (15-64)	75.6	78.4	76.3	77.1	78.7	1.6 pps
	Male	78.0	77.1	77.8	79.2	78.2	-1.0 pps
	Young (15-24)	39.1	33.9	36.4	38.5	40.7	2.2 pps
	Prime age (25-54)	94.4	94.2	94.1	95.1	94.1	-0.9 pps
	Older (55-64)	55.8	56.3	59.3	61.9	59.8	-2.1 pps
	Female	72.2	71.9	72.0	72.9	72.0	-0.9 pps
	Young (15-24)	32.9	28.7	31.0	33.1	31.1	-1.9 pps
	Prime age (25-54)	90.3	90.3	90.1	90.5	89.9	-0.6 pps
	Older (55-64)	46.0	48.5	50.6	52.8	52.6	-0.2 pps
5	- Employment rate (% of population 15-64)	71.8	70.9	71.4	73.1	72.5	-0.6 pps
	Young (15-24)	33.3	27.0	29.6	32.2	32.6	0.4 pps
	Prime age (25-54)	88.6	88.1	88.3	89.7	89.3	-0.3 pps
	Older (55-64)	48.6	50.5	52.7	55.2	54.3	-1.0 pps
	Low-skilled (15-64)	34.4	30.4	31.4	32.0	36.4	4.4 pps
	Medium-skilled (15-64)	73.2	70.9	70.0	72.9	74.0	1.1 pps
	High-skilled (15-64)	89.5	89.4	88.5	89.6	89.7	0.2 pps
	Nationals (15-64)	71.9	70.7	71.5	73.2	72.2	-1.0 pps
	Non-nationals (15-64)	70.3	72.7	70.4	72.2	75.3	3.1 pps
	Male	74.8	73.7	74.5	76.2	75.4	-0.8 pps
	Young (15-24)	36.2	29.6	32.2	35.1	36.3	1.2 pps
	Prime age (25-54)	90.9	90.4	90.6	92.0	91.5	-0.6 pps
	Older (55-64)	53.2	54.3	57.1	59.4	57.7	-1.8 pps
	Female	68.6	67.8	68.1	69.8	69.4	-0.4 pps
	Young (15-24)	29.9	24.1	26.5	29.0	28.4	-0.6 pps
	Prime age (25-54)	86.0	85.6	85.7	87.1	87.0	-0.1 pps
	Older (55-64)	44.0	46.6	48.5	51.1	50.8	-0.3 pps
6	- Employed persons (15-64, 1000 pers.)	969.7	964.7	954.3	966.6	970.4	0.4 %
7	- Employment growth (% , National accounts)	2.4	-0.7	1.3	2.9	1.2	-1.7 pps
	Employment growth (% , 15-64, LFS)	0.8	-0.5	-1.1	1.3	0.4	-0.9 pps
	Male	1.0	-0.3	-1.1	1.3	0.6	-0.8 pps
	Female	0.6	-0.8	-1.1	1.3	0.2	-1.0 pps
8	- Self employed (15-64, % of total employment)	11.8	10.7	11.9	11.7	12.1	0.4 pps
	Male	15.2	13.4	15.6	15.4	15.6	0.2 pps
	Female	7.8	7.6	7.6	7.3	7.9	0.6 pps
9	- Temporary employment (15-64, % of total employment)	13.2	10.8	11.8	11.6	11.2	-0.4 pps
	Male	11.7	9.5	10.3	10.0	9.5	-0.5 pps
	Female	14.9	12.2	13.3	13.3	13.2	-0.1 pps
10	- Part-time (15-64, % of total employment)	8.4	8.3	9.2	8.7	8.5	-0.2 pps
	Male	4.8	5.1	6.2	5.6	5.4	-0.2 pps
	Female	12.7	12.1	12.8	12.3	12.2	-0.1 pps
11	- Involuntary part-time (15-64, % of total employment)	0.4	0.5	0.9	0.7	0.6	-0.1 pps
12	- Unemployment rate (harmonised:15-74)	4.4	5.0	4.8	4.0	3.7	-0.3 pps
	Young (15-24)	8.1	14.2	12.8	10.1	9.9	-0.2 pps
	Prime age (25-49)	4.2	4.6	4.2	3.5	3.0	-0.5 pps
	Older (55-64)	4.5	3.7	4.0	3.7	3.5	-0.2 pps
	Low-skilled (15-64)	9.9	11.5	9.5	9.6	9.0	-0.6 pps
	Medium-skilled (15-64)	4.7	5.6	5.4	4.4	3.8	-0.6 pps
	High-skilled (15-64)	3.0	3.2	3.4	2.6	2.1	-0.5 pps
	Nationals (15-64)	4.4	4.9	4.6	3.8	3.5	-0.3 pps
	Non-nationals (15-64)	7.1	7.3	7.6	6.3	4.4	-1.9 pps
	Male	4.0	4.4	4.3	3.8	3.6	-0.2 pps
	Female	5.0	5.7	5.3	4.3	3.7	-0.6 pps
13	- Long-term unemployment (% of total unemployment)	43.0	38.8	39.2	39.2	38.3	-0.9 pps
14	- Worked hours (full-time, average actual weekly hours)	40.0	40.4	40.2	39.9	39.6	-0.8 %
	Male	40.6	40.8	40.6	40.4	40.1	-0.7 %
	Female	39.2	39.9	39.5	39.2	38.9	-0.8 %
15	- Sectoral employment growth (% change)						
	Agriculture	-0.6	-3.0	-1.2	-0.7	-2.1	-1.4 pps
	Building and construction	9.1	2.9	4.0	7.2	2.9	-4.3 pps
	Services	2.1	-1.8	0.6	3.5	1.6	-2.0 pps
	Manufacturing industry	2.6	-2.0	1.7	2.3	0.4	-1.9 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	5.0	3.4	8.1	5.0	11.8	6.8 pps
	Real compensation per employee based on GDP	2.6	2.3	5.2	-1.5	.	. pps
	Labour cost index (compens. of employees plus taxes minus subs.)	4.8	1.9	6.3	7.8	10.4	2.6 pps
	Labour cost index (wages and salaries, total)	4.9	2.8	5.2	7.7	10.6	2.9 pps
	Labour productivity (GDP/person employed)	1.1	-3.6	6.8	-0.4	0.4	0.8 pps

Slovak Republic		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	5453	5461	5441	5489	5530	0.7 %
2	- Population (LFS, working age:15-64, 1000 pers.)	3718	3689	3631	3589	3558	-0.9 %
	(% of total population)	68.2	67.6	66.7	65.4	64.3	-1.0 pps
3	- Labour force (15-64, 1000 pers.)	2702	2672	2709	2730	2722	-0.3 %
	<i>Male</i>	1478	1459	1437	1445	1440	-0.4 %
	<i>Female</i>	1223	1213	1272	1285	1282	-0.2 %
4	- Activity rate (% of population 15-64)	72.7	72.4	74.6	76.1	76.5	0.4 pps
	Young (15-24)	29.7	28.1	26.2	26.6	27.0	0.4 pps
	Prime age (25-54)	86.5	85.9	88.8	89.8	89.7	-0.1 pps
	Older (55-64)	59.8	61.3	64.1	67.1	69.3	2.2 pps
	Nationals (15-64)	72.6	72.4	74.5	76.0	76.4	0.5 pps
	Non-nationals (15-64)	80.6	70.9	88.0	89.8	86.6	-3.1 pps
	<i>Male</i>	78.8	78.3	78.6	79.8	80.2	0.4 pps
	Young (15-24)	36.8	34.9	31.9	32.7	32.7	-0.1 pps
	Prime age (25-54)	93.2	92.2	92.4	93.3	92.9	-0.3 pps
	Older (55-64)	62.9	64.5	67.7	69.6	72.7	3.1 pps
	<i>Female</i>	66.4	66.4	70.6	72.3	72.8	0.5 pps
	Young (15-24)	22.2	21.0	20.2	20.2	21.2	0.9 pps
	Prime age (25-54)	79.6	79.3	85.0	86.3	86.4	0.1 pps
	Older (55-64)	57.0	58.3	60.7	64.8	66.2	1.4 pps
5	- Employment rate (% of population 15-64)	68.4	67.5	69.4	71.3	72.0	0.6 pps
	Young (15-24)	24.9	22.7	20.8	21.3	21.7	0.4 pps
	Prime age (25-54)	82.0	80.6	83.2	84.7	84.8	0.1 pps
	Older (55-64)	57.0	58.3	60.6	64.1	66.6	2.5 pps
	Low-skilled (15-64)	20.7	18.2	13.7	15.4	16.2	0.9 pps
	Medium-skilled (15-64)	75.0	73.3	74.9	76.4	76.8	0.5 pps
	High-skilled (15-64)	80.6	80.2	85.4	86.9	87.9	1.0 pps
	Nationals (15-64)	68.4	67.5	69.4	71.3	71.9	0.6 pps
	Non-nationals (15-64)	76.3	62.7	81.2	83.5	82.0	-1.5 pps
	<i>Male</i>	74.4	73.3	73.3	75.0	75.5	0.4 pps
	Young (15-24)	31.6	28.5	25.6	26.6	25.4	-1.2 pps
	Prime age (25-54)	88.3	86.9	86.8	88.3	88.3	0.0 pps
	Older (55-64)	60.4	61.7	64.2	66.7	70.1	3.4 pps
	<i>Female</i>	62.4	61.7	65.6	67.6	68.4	0.8 pps
	Young (15-24)	17.8	16.5	15.8	15.8	17.8	1.9 pps
	Prime age (25-54)	75.3	74.0	79.4	81.0	81.3	0.2 pps
	Older (55-64)	53.9	55.2	57.3	61.6	63.4	1.7 pps
6	- Employed persons (15-64, 1000 pers.)	2543.8	2490.9	2521.7	2559.9	2559.9	0.0 %
7	- Employment growth (% , National accounts)	1.0	-1.9	-0.6	1.8	0.3	-1.5 pps
	Employment growth (% , 15-64, LFS)	0.4	-2.1	1.2	1.5	0.0	-1.5 pps
	<i>Male</i>	0.0	-2.2	-1.8	1.4	-0.2	-1.6 pps
	<i>Female</i>	1.0	-2.0	4.9	1.6	0.3	-1.4 pps
8	- Self employed (15-64, % of total employment)	14.8	14.7	14.6	14.6	14.8	0.2 pps
	<i>Male</i>	19.1	19.1	20.2	20.3	20.9	0.6 pps
	<i>Female</i>	9.7	9.4	8.3	8.2	8.1	-0.1 pps
9	- Temporary employment (15-64, % of total employment)	7.8	6.5	4.1	4.3	4.2	-0.1 pps
	<i>Male</i>	7.1	5.8	3.9	4.0	3.8	-0.2 pps
	<i>Female</i>	8.6	7.3	4.3	4.5	4.7	0.2 pps
10	- Part-time (15-64, % of total employment)	4.5	4.6	3.1	3.1	3.3	0.2 pps
	<i>Male</i>	2.9	2.7	1.8	2.0	1.8	-0.2 pps
	<i>Female</i>	6.5	6.8	4.6	4.4	5.0	0.6 pps
11	- Involuntary part-time (15-64, % of total employment)	1.2	0.9	0.6	0.7	0.5	-0.1 pps
12	- Unemployment rate (harmonised:15-74)	5.7	6.7	6.8	6.1	5.8	-0.3 pps
	Young (15-24)	16.1	19.3	20.6	19.9	19.8	-0.1 pps
	Prime age (25-49)	5.3	6.2	6.3	5.7	5.5	-0.2 pps
	Older (55-64)	4.7	4.8	5.4	4.5	3.9	-0.6 pps
	Low-skilled (15-64)	31.3	30.7	42.1	41.1	38.1	-3.0 pps
	Medium-skilled (15-64)	4.9	6.4	6.4	5.6	5.6	0.0 pps
	High-skilled (15-64)	2.5	3.5	3.0	2.4	2.0	-0.4 pps
	Nationals (15-64)	5.8	6.8	6.9	6.2	5.9	-0.3 pps
	Non-nationals (15-64)	0.0	0.0	0.0	0.0	0.0	0.0 pps
	<i>Male</i>	5.5	6.2	6.7	5.9	5.8	-0.1 pps
	<i>Female</i>	6.0	7.1	7.0	6.4	5.9	-0.5 pps
13	- Long-term unemployment (% of total unemployment)	58.2	47.7	56.6	66.4	65.2	-1.2 pps
14	- Worked hours (full-time, average actual weekly hours)	39.7	39.0	38.5	38.4	38.3	-0.3 %
	<i>Male</i>	40.6	39.8	39.2	39.1	39.0	-0.3 %
	<i>Female</i>	38.9	38.3	37.5	37.4	37.2	-0.5 %
15	- Sectoral employment growth (% change)						
	Agriculture	0.1	-2.6	-3.1	1.7	-0.6	-2.3 pps
	Building and construction	5.2	-0.7	0.6	2.5	2.0	-0.5 pps
	Services	0.6	-1.9	-0.6	1.7	0.2	-1.4 pps
	Manufacturing industry	0.2	-4.3	-0.8	1.2	-0.6	-1.8 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	6.8	3.9	6.9	5.5	10.4	4.8 pps
	Real compensation per employee based on GDP	4.2	1.5	4.4	-1.9	.	. pps
	Labour cost index (compens. of employees plus taxes minus subs.)	7.1	4.8	5.0	11.1	8.4	-2.7 pps
	Labour cost index (wages and salaries, total)	7.0	8.5	5.3	7.2	9.1	1.9 pps
	Labour productivity (GDP/person employed)	1.5	-1.5	5.4	0.1	1.3	1.2 pps

Finland		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	5522	5531	5542	5557	5577	0.4 %
2	- Population (LFS, working age:15-64, 1000 pers.)	3410	3401	3399	3400	3421	0.6 %
	(% of total population)	61.7	61.5	61.3	61.2	61.3	0.1 pps
3	- Labour force (15-64, 1000 pers.)	2669	2662	2679	2714	2732	0.7 %
	<i>Male</i>	1379	1377	1388	1393	1399	0.5 %
	<i>Female</i>	1290	1285	1291	1321	1332	0.9 %
4	- Activity rate (% of population 15-64)	78.3	78.3	78.8	79.8	79.9	0.0 pps
	Young (15-24)	53.9	52.2	52.9	53.9	54.7	0.8 pps
	Prime age (25-54)	87.7	87.5	87.9	88.1	87.9	-0.3 pps
	Older (55-64)	71.5	72.9	73.8	76.8	77.3	0.5 pps
	Nationals (15-64)	78.7	78.6	79.1	79.9	80.1	-0.1 pps
	Non-nationals (15-64)	68.4	71.3	74.3	78.0	77.2	-0.8 pps
	<i>Male</i>	79.9	80.0	80.3	80.6	80.4	-0.2 pps
	Young (15-24)	54.3	53.1	53.1	53.3	52.9	-0.4 pps
	Prime age (25-54)	90.3	90.0	90.0	89.4	89.2	-0.1 pps
	Older (55-64)	70.5	72.4	73.8	76.9	76.7	-0.1 pps
	<i>Female</i>	76.6	76.5	77.2	79.0	79.3	0.3 pps
	Young (15-24)	53.5	51.3	52.7	54.6	56.6	2.0 pps
	Prime age (25-54)	84.9	84.9	85.6	86.8	86.4	-0.4 pps
	Older (55-64)	72.4	73.5	73.9	76.8	77.9	1.1 pps
5	- Employment rate (% of population 15-64)	72.9	72.1	72.7	74.3	74.0	-0.3 pps
	Young (15-24)	44.6	41.1	43.8	46.3	45.9	-0.4 pps
	Prime age (25-54)	83.2	82.4	82.3	83.3	82.8	-0.5 pps
	Older (55-64)	66.8	67.5	68.4	71.2	71.7	0.5 pps
	Low-skilled (15-64)	39.0	36.6	41.0	43.3	43.3	0.0 pps
	Medium-skilled (15-64)	74.4	72.1	73.9	75.8	75.4	-0.4 pps
	High-skilled (15-64)	86.2	86.2	87.3	88.1	88.2	0.1 pps
	Nationals (15-64)	73.5	72.6	73.3	74.7	74.7	0.0 pps
	Non-nationals (15-64)	59.8	61.2	63.2	68.6	65.2	-3.4 pps
	<i>Male</i>	74.1	73.4	73.6	74.7	73.9	-0.8 pps
	Young (15-24)	44.1	40.7	43.7	45.6	43.9	-1.7 pps
	Prime age (25-54)	85.6	84.7	83.7	84.4	83.5	-0.8 pps
	Older (55-64)	64.8	66.6	67.9	69.9	70.0	0.1 pps
	<i>Female</i>	71.8	70.7	71.7	73.9	74.1	0.3 pps
	Young (15-24)	45.1	41.4	44.0	46.9	47.8	0.9 pps
	Prime age (25-54)	80.7	80.0	80.8	82.1	82.0	-0.1 pps
	Older (55-64)	68.7	68.4	68.8	72.5	73.4	0.9 pps
6	- Employed persons (15-64, 1000 pers.)	2487.0	2450.4	2469.5	2526.0	2532.0	0.2 %
7	- Employment growth (% , National accounts)	1.5	-2.0	2.2	3.5	0.8	-2.7 pps
	Employment growth (% , 15-64, LFS)	0.9	-1.5	0.8	2.3	0.2	-2.1 pps
	<i>Male</i>	0.6	-1.1	0.6	1.6	-0.4	-2.0 pps
	<i>Female</i>	1.2	-1.8	0.9	3.0	0.9	-2.1 pps
8	- Self employed (15-64, % of total employment)	11.8	11.8	12.2	11.3	11.0	-0.4 pps
	<i>Male</i>	14.9	15.1	15.7	14.6	14.4	-0.2 pps
	<i>Female</i>	8.6	8.2	8.5	7.9	7.4	-0.5 pps
9	- Temporary employment (15-64, % of total employment)	15.5	14.6	16.0	16.0	15.4	-0.6 pps
	<i>Male</i>	12.7	12.0	13.4	13.7	13.2	-0.5 pps
	<i>Female</i>	18.2	17.1	18.5	18.3	17.5	-0.8 pps
10	- Part-time (15-64, % of total employment)	15.5	14.8	16.9	17.0	17.0	0.0 pps
	<i>Male</i>	10.1	10.2	11.0	11.3	11.5	0.2 pps
	<i>Female</i>	21.3	19.8	23.2	23.0	22.7	-0.3 pps
11	- Involuntary part-time (15-64, % of total employment)	4.8	4.8	5.3	4.4	4.2	-0.2 pps
12	- Unemployment rate (harmonised:15-74)	6.8	7.7	7.7	6.8	7.2	0.4 pps
	Young (15-24)	17.2	21.4	17.1	14.2	16.2	2.0 pps
	Prime age (25-49)	5.1	5.8	6.4	5.5	5.8	0.3 pps
	Older (55-64)	6.6	7.5	7.4	7.3	7.2	-0.1 pps
	Low-skilled (15-64)	17.1	20.0	17.6	15.7	16.8	1.1 pps
	Medium-skilled (15-64)	7.3	9.1	8.2	7.3	7.8	0.5 pps
	High-skilled (15-64)	4.0	4.4	4.7	4.0	4.0	0.0 pps
	Nationals (15-64)	6.6	7.7	7.4	6.6	6.7	0.1 pps
	Non-nationals (15-64)	12.6	14.2	15.0	12.1	15.6	3.5 pps
	<i>Male</i>	7.3	8.1	8.2	7.1	7.9	0.8 pps
	<i>Female</i>	6.2	7.4	7.1	6.4	6.5	0.1 pps
13	- Long-term unemployment (% of total unemployment)	18.1	15.7	23.7	23.0	22.7	-0.3 pps
14	- Worked hours (full-time, average actual weekly hours)	38.7	38.3	37.9	37.4	37.2	-0.5 %
	<i>Male</i>	39.9	39.5	39.2	38.7	38.4	-0.8 %
	<i>Female</i>	35.5	35.3	33.9	33.5	31.9	-4.8 %
15	- Sectoral employment growth (% change)						
	Agriculture	-0.1	2.2	-2.2	-0.8	1.0	1.8 pps
	Building and construction	-1.7	-2.2	1.0	0.2	-3.9	-4.1 pps
	Services	2.4	-3.9	2.9	5.1	0.7	-4.4 pps
	Manufacturing industry	0.2	-1.7	0.2	2.4	0.3	-2.1 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	1.7	0.5	4.2	2.5	3.5	1.0 pps
	Real compensation per employee based on GDP	0.2	-1.1	1.7	-2.7	.	: pps
	Labour cost index (compens. of employees plus taxes minus subs.)	0.8	0.2	3.7	2.6	3.6	1.0 pps
	Labour cost index (wages and salaries, total)	1.5	1.4	2.8	2.4	3.4	1.0 pps
	Labour productivity (GDP/person employed)	-0.2	-0.4	0.6	-2.1	-1.9	0.2 pps

Sweden		2019	2020	2021	2022	2023	2022-2023
1	- Population (LFS, total, 1000 pers.)	10284	10357	10419	10528	10600	0.7 %
2	- Population (LFS, working age:15-64, 1000 pers.)	6404	6443	6447	6492	6536	0.7 %
	(% of total population)	62.3	62.2	61.9	61.7	61.7	0.0 pps
3	- Labour force (15-64, 1000 pers.)	5310	5317	5327	5409	5489	1.5 %
	Male	2773	2791	2790	2835	2865	1.1 %
	Female	2538	2525	2537	2574	2624	1.9 %
4	- Activity rate (% of population 15-64)	82.9	82.5	82.6	83.3	84.0	0.7 pps
	Young (15-24)	55.0	52.1	54.0	56.8	57.5	0.6 pps
	Prime age (25-54)	91.3	91.2	90.9	91.5	92.2	0.7 pps
	Older (55-64)	81.5	82.4	82.0	81.5	82.4	0.9 pps
	Nationals (15-64)	83.9	83.3	83.1	83.7	84.1	0.4 pps
	Non-nationals (15-64)	74.6	75.5	77.8	79.8	83.4	3.5 pps
	Male	84.6	84.6	84.6	85.4	85.7	0.3 pps
	Young (15-24)	53.9	52.2	53.3	57.1	57.8	0.7 pps
	Prime age (25-54)	93.7	93.8	93.8	94.1	94.0	0.0 pps
	Older (55-64)	84.1	85.4	84.7	84.1	85.5	1.4 pps
	Female	81.2	80.3	80.5	81.1	82.2	1.0 pps
	Young (15-24)	56.2	51.9	54.9	56.6	57.1	0.6 pps
	Prime age (25-54)	88.7	88.4	88.0	88.8	90.3	1.5 pps
	Older (55-64)	78.9	79.4	79.3	78.7	79.2	0.5 pps
5	- Employment rate (% of population 15-64)	77.1	75.5	75.1	77.0	77.4	0.4 pps
	Young (15-24)	43.9	39.6	40.7	44.5	44.8	0.3 pps
	Prime age (25-54)	86.4	85.0	84.5	86.3	86.7	0.4 pps
	Older (55-64)	77.7	77.6	76.4	77.0	78.0	1.0 pps
	Low-skilled (15-64)	46.0	41.9	40.9	44.4	44.8	0.4 pps
	Medium-skilled (15-64)	82.5	81.0	80.0	80.6	81.1	0.5 pps
	High-skilled (15-64)	88.8	88.0	88.2	89.5	89.5	0.1 pps
	Nationals (15-64)	79.2	77.8	76.8	78.2	78.4	0.2 pps
	Non-nationals (15-64)	59.5	56.5	59.3	65.5	67.8	2.3 pps
	Male	78.8	77.4	77.1	79.2	79.1	-0.1 pps
	Young (15-24)	42.9	39.2	39.9	45.6	44.8	-0.8 pps
	Prime age (25-54)	89.0	87.7	87.7	89.1	88.8	-0.2 pps
	Older (55-64)	79.8	79.8	78.0	79.3	80.7	1.4 pps
	Female	75.4	73.5	73.0	74.6	75.6	1.0 pps
	Young (15-24)	45.1	40.1	41.6	43.3	44.8	1.5 pps
	Prime age (25-54)	83.7	82.2	81.2	83.3	84.5	1.2 pps
	Older (55-64)	75.6	75.3	74.7	74.7	75.3	0.6 pps
6	- Employed persons (15-64, 1000 pers.)	4938.5	4862.6	4841.9	4996.3	5059.0	1.3 %
7	- Employment growth (% National accounts)	0.6	-1.3	1.3	3.5	1.2	-2.3 pps
	Employment growth (% 15-64, LFS)	0.6	-1.5	-0.4	3.2	1.3	-1.9 pps
	Male	1.0	-1.1	-0.4	3.5	0.6	-2.9 pps
	Female	0.1	-2.0	-0.5	2.9	2.0	-0.9 pps
8	- Self employed (15-64, % of total employment)	8.7	8.6	8.5	8.5	8.5	-0.1 pps
	Male	12.2	11.8	11.8	11.6	11.5	-0.1 pps
	Female	5.0	5.0	4.8	5.1	5.1	-0.1 pps
9	- Temporary employment (15-64, % of total employment)	15.7	14.8	14.5	14.8	13.9	-0.9 pps
	Male	14.0	13.2	12.6	13.2	12.4	-0.8 pps
	Female	17.3	16.5	16.4	16.5	15.5	-1.0 pps
10	- Part-time (15-64, % of total employment)	22.5	22.3	20.4	20.3	20.0	-0.3 pps
	Male	13.4	13.8	12.0	12.5	12.6	0.1 pps
	Female	32.5	31.7	29.7	29.0	28.0	-1.0 pps
11	- Involuntary part-time (15-64, % of total employment)	5.2	5.1	5.1	4.4	4.0	-0.4 pps
12	- Unemployment rate (harmonised:15-74)	6.9	8.5	8.9	7.5	7.7	0.2 pps
	Young (15-24)	20.1	23.9	24.7	21.7	22.1	0.4 pps
	Prime age (25-49)	5.3	6.8	7.1	5.7	5.9	0.2 pps
	Older (55-64)	4.7	5.8	6.9	5.4	5.3	-0.1 pps
	Low-skilled (15-64)	21.6	25.8	29.5	26.2	25.6	-0.6 pps
	Medium-skilled (15-64)	5.1	6.5	6.9	5.8	6.1	0.3 pps
	High-skilled (15-64)	3.8	4.8	4.5	3.3	3.9	0.6 pps
	Nationals (15-64)	5.5	6.7	7.6	6.6	6.7	0.1 pps
	Non-nationals (15-64)	20.2	25.2	23.8	18.0	18.7	0.7 pps
	Male	6.7	8.5	8.6	7.1	7.5	0.4 pps
	Female	7.1	8.5	9.2	7.9	7.9	0.0 pps
13	- Long-term unemployment (% of total unemployment)	14.3	14.4	22.0	27.6	22.5	-5.1 pps
14	- Worked hours (full-time, average actual weekly hours)	39.2	38.1	38.8	39.0	38.7	-0.8 %
	Male	39.5	38.3	39.0	38.9	38.7	-0.5 %
	Female	37.7	36.8	37.4	37.5	37.3	-0.5 %
15	- Sectoral employment growth (% change)						
	Agriculture	2.7	2.4	0.4	0.1	0.7	0.6 pps
	Building and construction	0.2	-0.6	2.0	3.5	0.3	-3.2 pps
	Services	1.2	-2.7	1.2	5.6	1.4	-4.3 pps
	Manufacturing industry	-0.4	-1.8	0.9	3.0	1.2	-1.8 pps
16	- Indicator board on wage developments (% change)						
	Compensation per employee	2.9	2.5	4.9	2.1	5.0	2.9 pps
	Real compensation per employee based on GDP	0.4	0.5	1.9	-3.0	.	. pps
	Labour cost index (compens. of employees plus taxes minus subs.)	2.6	0.5	4.4	3.4	3.6	0.2 pps
	Labour cost index (wages and salaries, total)	2.8	2.1	2.8	3.4	4.7	1.3 pps
	Labour productivity (GDP/person employed)	1.9	-0.7	4.6	-2.0	-1.3	0.7 pps

Euro Area	2019	2020	2021	2022	2023	2022-2023
1 - Population (LFS, total, 1000 pers.)	346182	346704	346791	348369	350237	0.5 %
2 - Population (LFS, working age:15-64, 1000 pers.)	220356	220003	219411	220180	220994	0.4 %
(% of total population)	63.7	63.5	63.3	63.2	63.1	-0.1 pps
3 - Labour force (15-64, 1000 pers.)	162066	159826	161501	163968	165804	1.1 %
<i>Male</i>	86532	85323	85920	87071	87891	0.9 %
<i>Female</i>	75535	74503	75581	76897	77913	1.3 %
4 - Activity rate (% of population 15-64)	73.5	72.6	73.6	74.5	75.0	0.6 pps
Young (15-24)	40.1	38.6	40.7	42.3	43.0	0.6 pps
Prime age (25-54)	85.8	84.9	85.7	86.3	86.7	0.3 pps
Older (55-64)	63.4	63.5	64.6	65.9	67.4	1.5 pps
Nationals (15-64)	73.8	73.0	74.0	74.8	75.5	0.6 pps
Non-nationals (15-64)	71.6	70.0	70.6	71.7	71.9	0.3 pps
<i>Male</i>	78.7	77.7	78.4	79.2	79.6	0.4 pps
Young (15-24)	42.7	41.1	43.1	44.8	45.4	0.6 pps
Prime age (25-54)	91.4	90.5	90.8	91.4	91.6	0.1 pps
Older (55-64)	69.9	69.7	70.7	71.7	73.0	1.3 pps
<i>Female</i>	68.4	67.6	68.8	69.8	70.5	0.7 pps
Young (15-24)	37.3	36.0	38.2	39.8	40.4	0.6 pps
Prime age (25-54)	80.3	79.4	80.5	81.2	81.8	0.5 pps
Older (55-64)	57.2	57.6	58.9	60.3	62.0	1.7 pps
5 - Employment rate (% of population 15-64)	67.9	66.8	67.8	69.3	70.0	0.7 pps
Young (15-24)	33.8	31.9	33.8	36.2	36.7	0.6 pps
Prime age (25-54)	79.7	78.6	79.4	80.9	81.4	0.5 pps
Older (55-64)	59.8	60.0	60.8	62.4	64.1	1.6 pps
Low-skilled (15-64)	46.6	45.5	45.9	47.8	48.4	0.6 pps
Medium-skilled (15-64)	71.4	69.7	70.4	71.9	72.4	0.5 pps
High-skilled (15-64)	84.0	82.9	84.0	85.0	85.4	0.3 pps
Nationals (15-64)	68.5	67.6	68.6	70.1	70.8	0.8 pps
Non-nationals (15-64)	63.0	60.3	61.3	63.8	64.4	0.5 pps
<i>Male</i>	73.0	71.7	72.5	74.0	74.5	0.5 pps
Young (15-24)	35.8	33.9	35.8	38.2	38.6	0.4 pps
Prime age (25-54)	85.3	84.1	84.6	86.1	86.4	0.3 pps
Older (55-64)	65.9	65.8	66.5	68.1	69.5	1.4 pps
<i>Female</i>	62.9	62.0	63.1	64.7	65.5	0.9 pps
Young (15-24)	31.6	29.8	31.7	34.1	34.8	0.7 pps
Prime age (25-54)	74.1	73.1	74.3	75.6	76.3	0.7 pps
Older (55-64)	54.0	54.4	55.3	57.1	58.9	1.8 pps
6 - Employed persons (15-64, 1000 pers.)	149673.7	147043.8	148773.0	152676.7	154753.1	1.4 %
7 - Employment growth (% , National accounts)	1.3	-1.4	1.4	2.2	1.4	-0.8 pps
Employment growth (% , 15-64, LFS)	1.1	-1.8	1.2	2.6	1.4	-1.3 pps
<i>Male</i>	0.8	-1.8	0.9	2.5	1.1	-1.4 pps
<i>Female</i>	1.4	-1.7	1.5	2.8	1.6	-1.2 pps
8 - Self employed (15-64, % of total employment)	13.2	13.1	12.9	12.9	12.8	-0.1 pps
<i>Male</i>	16.4	16.2	16.1	15.9	15.7	-0.2 pps
<i>Female</i>	9.5	9.5	9.3	9.4	9.5	0.0 pps
9 - Temporary employment (15-64, % of total employment)	15.8	14.3	15.3	15.3	14.4	-0.9 pps
<i>Male</i>	15.4	13.7	14.6	14.5	13.6	-0.9 pps
<i>Female</i>	16.2	14.8	16.1	16.2	15.3	-0.9 pps
10 - Part-time (15-64, % of total employment)	21.2	21.2	20.7	20.5	20.6	0.1 pps
<i>Male</i>	9.3	9.3	9.2	9.2	9.4	0.2 pps
<i>Female</i>	35.0	34.8	33.9	33.4	33.4	0.0 pps
11 - Involuntary part-time (15-64, % of total employment)	5.6	5.2	4.9	4.3	4.0	-0.3 pps
12 - Unemployment rate (harmonised:15-74)	7.6	8.0	7.8	6.8	6.6	-0.2 pps
Young (15-24)	15.7	17.4	16.9	14.6	14.5	-0.1 pps
Prime age (25-49)	7.1	7.5	7.2	6.3	6.1	-0.2 pps
Older (55-64)	5.7	5.6	6.0	5.2	4.9	-0.3 pps
Low-skilled (15-64)	14.0	14.2	14.0	12.3	11.9	-0.4 pps
Medium-skilled (15-64)	6.9	7.4	7.4	6.5	6.3	-0.2 pps
High-skilled (15-64)	4.8	5.4	5.1	4.4	4.3	-0.1 pps
Nationals (15-64)	7.1	7.3	7.3	6.4	6.1	-0.3 pps
Non-nationals (15-64)	12.0	13.9	13.1	10.9	10.5	-0.4 pps
<i>Male</i>	7.3	7.7	7.4	6.4	6.2	-0.2 pps
<i>Female</i>	8.0	8.3	8.2	7.2	6.9	-0.3 pps
13 - Long-term unemployment (% of total unemployment)	44.0	37.9	41.1	39.9	36.2	-3.7 pps
14 - Worked hours (full-time, average actual weekly hours)	40.4	39.3	39.4	39.5	39.2	-0.8 %
<i>Male</i>	41.0	40.0	40.0	40.0	39.7	-0.7 %
<i>Female</i>	38.5	37.6	37.6	37.7	37.4	-0.8 %
15 - Sectoral employment growth (% change)						
Agriculture	-2.2	-2.5	0.0	-1.1	-1.2	-0.1 pps
Building and construction	2.9	0.8	3.3	3.2	1.4	-1.8 pps
Services	1.5	-2.6	1.4	3.1	1.9	-1.3 pps
Manufacturing industry	1.3	-2.1	-0.2	1.2	0.8	-0.4 pps
16 - Indicator board on wage developments (% change)						
Compensation per employee	2.2	-0.4	4.3	4.4	5.3	0.8 pps
Real compensation per employee based on GDP	0.5	-2.2	1.9	-0.2	.	. pps
Labour cost index (compens. of employees plus taxes minus subs.)	2.6	2.4	0.8	5.2	5.2	0.0 pps
Labour cost index (wages and salaries, total)	2.5	3.0	0.9	4.6	5.1	0.5 pps
Labour productivity (GDP/person employed)	0.3	-4.7	4.6	1.2	-1.0	-2.2 pps

European Union (27 countries)						
	2019	2020	2021	2022	2023	2022-2023
1 - Population (LFS, total, 1000 pers.)	447360	447728	447441	448946	450875	0.4 %
2 - Population (LFS, working age:15-64, 1000 pers.)	285072	284362	283124	283017	283331	0.1 %
(% of total population)	63.7	63.5	63.3	63.0	62.8	-0.2 pps
3 - Labour force (15-64, 1000 pers.)	209310	206879	208338	210750	212540	0.8 %
<i>Male</i>	112503	111270	111584	112538	113236	0.6 %
<i>Female</i>	96808	95609	96753	98212	99305	1.1 %
4 - Activity rate (% of population 15-64)	73.4	72.8	73.6	74.5	75.0	0.5 pps
Young (15-24)	39.3	37.8	39.2	40.7	41.2	0.5 pps
Prime age (25-54)	86.0	85.3	85.9	86.6	87.0	0.4 pps
Older (55-64)	62.3	62.8	64.0	65.4	67.0	1.6 pps
Nationals (15-64)	73.6	73.0	73.9	74.7	75.3	0.6 pps
Non-nationals (15-64)	71.8	70.3	71.0	72.1	72.4	0.3 pps
<i>Male</i>	78.9	78.2	78.7	79.4	79.8	0.3 pps
Young (15-24)	42.1	40.5	41.9	43.4	43.9	0.5 pps
Prime age (25-54)	91.7	91.0	91.2	91.7	91.8	0.1 pps
Older (55-64)	69.6	69.8	70.8	72.0	73.4	1.3 pps
<i>Female</i>	67.9	67.3	68.4	69.5	70.2	0.7 pps
Young (15-24)	36.4	34.9	36.4	37.8	38.4	0.6 pps
Prime age (25-54)	80.2	79.5	80.6	81.4	82.0	0.6 pps
Older (55-64)	55.4	56.2	57.4	59.1	60.9	1.9 pps
5 - Employment rate (% of population 15-64)	68.4	67.5	68.3	69.8	70.4	0.6 pps
Young (15-24)	33.4	31.4	32.7	34.8	35.2	0.5 pps
Prime age (25-54)	80.6	79.6	80.3	81.7	82.2	0.5 pps
Older (55-64)	59.1	59.6	60.4	62.2	63.9	1.7 pps
Low-skilled (15-64)	45.1	44.0	44.1	45.9	46.4	0.5 pps
Medium-skilled (15-64)	71.7	70.4	70.9	72.3	72.7	0.5 pps
High-skilled (15-64)	84.8	83.8	85.0	86.0	86.3	0.3 pps
Nationals (15-64)	68.9	68.2	69.0	70.4	71.0	0.7 pps
Non-nationals (15-64)	63.2	60.5	61.6	64.2	64.8	0.6 pps
<i>Male</i>	73.8	72.8	73.3	74.7	75.1	0.4 pps
Young (15-24)	35.7	33.7	35.0	37.1	37.3	0.2 pps
Prime age (25-54)	86.4	85.4	85.6	86.9	87.2	0.2 pps
Older (55-64)	66.0	66.2	67.0	68.7	70.1	1.4 pps
<i>Female</i>	63.1	62.2	63.3	64.9	65.7	0.8 pps
Young (15-24)	31.0	29.1	30.3	32.3	33.0	0.7 pps
Prime age (25-54)	74.8	73.9	75.0	76.5	77.1	0.7 pps
Older (55-64)	52.6	53.3	54.2	56.2	58.1	1.9 pps
6 - Employed persons (15-64, 1000 pers.)	195072	191975	193408	197525	199488	1.0 %
7 - Employment growth (% , National accounts)	1.1	-1.4	1.4	2.0	1.2	-0.8 pps
Employment growth (% , 15-64, LFS)	1.1	-1.6	0.7	2.1	1.0	-1.1 pps
<i>Male</i>	1.0	-1.5	0.3	1.9	0.7	-1.1 pps
<i>Female</i>	1.2	-1.6	1.2	2.5	1.3	-1.1 pps
8 - Self employed (15-64, % of total employment)	13.4	13.4	13.1	13.1	13.0	-0.1 pps
<i>Male</i>	16.8	16.7	16.4	16.3	16.2	-0.1 pps
<i>Female</i>	9.5	9.5	9.3	9.4	9.4	0.0 pps
9 - Temporary employment (15-64, % of total employment)	15.0	13.5	14.1	14.1	13.4	-0.7 pps
<i>Male</i>	14.5	12.9	13.3	13.3	12.6	-0.7 pps
<i>Female</i>	15.5	14.2	14.8	14.9	14.3	-0.6 pps
10 - Part-time (15-64, % of total employment)	18.3	18.2	17.7	17.6	17.8	0.2 pps
<i>Male</i>	8.4	8.4	8.2	8.2	8.4	0.2 pps
<i>Female</i>	29.9	29.6	28.7	28.4	28.5	0.1 pps
11 - Involuntary part-time (15-64, % of total employment)	4.7	4.4	4.1	3.7	3.5	-0.2 pps
12 - Unemployment rate (harmonised:15-74)	6.8	7.2	7.1	6.2	6.1	-0.1 pps
Young (15-24)	15.0	16.8	16.7	14.5	14.5	0.0 pps
Prime age (25-49)	6.2	6.6	6.5	5.6	5.5	-0.1 pps
Older (55-64)	5.1	5.2	5.5	4.8	4.6	-0.2 pps
Low-skilled (15-64)	13.6	13.9	14.1	12.5	12.2	-0.3 pps
Medium-skilled (15-64)	6.0	6.5	6.6	5.8	5.7	-0.1 pps
High-skilled (15-64)	4.3	4.8	4.6	3.8	3.8	0.0 pps
Nationals (15-64)	6.3	6.6	6.6	5.8	5.7	-0.1 pps
Non-nationals (15-64)	12.0	14.0	13.1	10.9	10.5	-0.4 pps
<i>Male</i>	6.5	7.0	6.8	5.9	5.8	-0.1 pps
<i>Female</i>	7.2	7.5	7.4	6.5	6.4	-0.1 pps
13 - Long-term unemployment (% of total unemployment)	41.9	35.8	39.4	38.7	35.2	-3.5 pps
14 - Worked hours (full-time, average actual weekly hours)	40.2	39.2	39.4	39.4	39.1	-0.8 %
<i>Male</i>	41.3	40.3	40.5	40.6	40.2	-1.0 %
<i>Female</i>	38.7	37.9	38.1	38.1	38.0	-0.3 %
15 - Sectoral employment growth (% change)						
Agriculture	-3.2	-1.7	-1.0	-2.0	-1.1	0.9 pps
Building and construction	3.2	0.9	3.1	2.5	0.9	-1.6 pps
Services	1.5	-2.5	1.6	2.9	1.8	-1.1 pps
Manufacturing industry	0.5	-2.7	-0.1	1.1	0.2	-0.9 pps
16 - Indicator board on wage developments (% change)						
Compensation per employee	2.6	-0.1	4.5	4.8	5.8	1.0 pps
Real compensation per employee based on GDP	0.7	-1.8	1.8	-0.6	.	: pps
Labour cost index (compens. of employees plus taxes minus subs.)	2.9	2.6	1.2	5.5	5.6	0.1 pps
Labour cost index (wages and salaries, total)	2.9	3.2	1.4	5.0	5.7	0.7 pps
Labour productivity (GDP/person employed)	0.8	-4.3	4.6	1.4	-0.8	-2.2 pps

GETTING IN TOUCH WITH THE EU

In person

All over the European Union there are hundreds of Europe Direct information centres. You can find the address of the centre nearest you at: https://europa.eu/european-union/contact_en

On the phone or by email

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696 or
- by email via: https://europa.eu/european-union/contact_en

FINDING INFORMATION ABOUT THE EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website at: https://europa.eu/european-union/index_en

EU publications

You can download or order free and priced EU publications at: <https://publications.europa.eu/en/publications>. Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see https://europa.eu/european-union/contact_en).

EU law and related documents

For access to legal information from the EU, including all EU law since 1952 in all the official language versions, go to EUR-Lex at: <http://eur-lex.europa.eu>

Open data from the EU

The EU Open Data Portal (<http://data.europa.eu/euodp/en>) provides access to datasets from the EU. Data can be downloaded and reused for free, for both commercial and non-commercial purposes.

