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COMMISSION STAFF WORKING DOCUMENT

EMPLOYMENT AND SOCIAL DEVELOPMENTS IN EUROPE 2024
Chapter 3

CHAPTER 3

The role of social investment

1. INTRODUCTION ([1])

Social investment contributes to economic growth while pursuing social objectives. It can positively impact growth by enhancing human capital, easing labour market transitions, increasing labour supply, raising productivity, and strengthening innovative capacity. This particularly refers to reforms and investments that contribute to addressing skills shortages and mismatches via education as well as upskilling, reskilling and lifelong learning. It also refers to those reforms and investments that increase labour market participation via active labour market policies (ALMPs), reforms of the tax-benefit system, the provision of early childhood education and care (ECEC), and active inclusion policies. Well-designed welfare systems combine a strong social investment dimension with protection and stabilisation functions. As such, they increase the effectiveness and efficiency of social policies while ensuring ongoing support for a fairer and more inclusive society. This goal is underlined in the Social Investment Package put forward by the European Commission in 2013 and underpinned by the European Pillar of Social Rights. While there is no commonly agreed definition of what constitutes social investment yet, this report adopts a definition of social investment largely based on that used in the context of the ECOFIN Council meeting in March 2024. The report thus considers social investment as public spending related to investments and reforms that, on top of pursuing social objectives and therefore fostering upward social convergence, are expected to produce returns in terms of economic growth through their impact on human capital and productivity, including via stronger innovative capacity and absorption of new technologies, and/or labour supply. ([2])

Social investment can support upward convergence across a broad range of economic and social indicators. Investment in ECEC can improve the labour market participation of parents, especially mothers, speeding-up the narrowing and convergence of gender employment and pay gaps (see Chapter 2, Section 4). It can also help to reduce disparities in skill supply, poverty and social exclusion by improving education for children resulting in better labour market opportunities later on. Through the positive impact on employment for parents and children later on in life, investment in ECEC is expected to promote upward convergence in economic outcomes such as GDP per capita. Investment in education and training as well as ALMPs can support upward economic and social convergence, as reducing labour mismatches and shortages can foster economic growth and improve employment outcomes. A similar rationale applies to other types of social investment.

([1]) This chapter was written by Jakub Caisl, Karolina Gralek, Eva Schoenwald, Nora Wukovits-Votzi, Alessia Fulvimari and Nadja Najjar, with contributions from Argyrios Pisiotis, Markus Sommersgutter and the Joint Research Centre (JRC) EUROMOD, RHOMOLO, and JRC-GEM-E3 teams.

([2]) See note from the Council on "Social investments and reforms for resilient economies- Investing in people to boost productivity and growth prospects", March 4, 2024.

Social investment plays a key role in delivering the European Pillar of Social Rights and its Action Plan. Building on the technical work of the Informal Working Group on Social Investment set up by the Spanish and Belgian presidencies, the opinion of the Employment Committee and Social Protection Committee endorsed by the Council (EPSCO) in November 2023 underlines that 'national reforms and investments based on the social investment approach, if adequately designed, can be vehicles for the implementation of the principles of the European Pillar of Social Rights'. ([3]) The reformed Economic Governance Framework adopted by co-legislators in February 2024 aims to strengthen debt sustainability and promote sustainable and inclusive growth through reforms and investments that contribute to common EU priorities, such as the European Pillar of Social Rights, the green transition, the digital transition, and the build-up of defence capabilities. In this context, the identification of returns on social investment also plays a role.

This chapter discusses the role of social investment and its contribution to upward social convergence between Member States. Section 2. presents current knowledge on the social investment concept and underlines EU policies that facilitate social investment. Section 3. provides an in-depth analysis of some social investment policies, such as investment in education, including ECEC, skills, and ALMPs. Section 4. estimates the effectiveness of selected housing policies on reducing poverty and promoting upward social convergence. Section 5. concludes with a brief overview of the chapter findings.

2. WHAT DO WE KNOW ABOUT SOCIAL INVESTMENT?

Well-designed social investments can raise productivity and economic growth. For instance, investments and reforms in education and skills can foster economic growth through increases in productivity, innovative capacity and employability. Investments in ECEC are expected to have the strongest impact. ALMPs and well-functioning public employment services (PES) can improve the efficiency of labour market matching and activate population groups that are underrepresented in the labour market. Investments in health can improve the population's health status at every age, which increases the productivity of the (current and future) population of working age and can prolong working lives; such investments can prevent work-related illnesses, and help (re-)integrate people with disabilities and those returning from longer-term sick leave into the labour market. All of these investments and reforms can lead to a double dividend, ensuring additional revenue through employment and health gains, while reducing dependence on social benefits. ([4]) Social investment might also help to address labour shortages and skills mismatches, support resilient economies, ([5]) and increase well-being.

Analysing returns on social investment should take a life-course perspective. Social investment generates a multiplier effect that leads to cumulative returns over the life-course at both individual and macro levels. ([6]) Research shows that returns tend to be highest when invested in early life stages. ([7]) For instance, investing in ECEC improves individuals' future educational outcomes, leading to better labour market opportunities and potentially reducing inequality of opportunity for the next generation. However, changing skills needs, including in the context of the green and digital transitions, might necessitate additional social investment to fully reap the benefits of previous investment in ECEC and initial education and ensure that workers' skillsets correspond to labour market needs (see Box 3.4 for a discussion in the context of the green transition). ([8])

Significant challenges are associated with measuring returns on social investment. While social investment policies can have a direct economic impact, not all returns can be easily translated into direct quantitative effects on employment, productivity or economic output. Some returns might only materialise in the medium to long term, requiring the collection of data over a longer timeframe (e.g. from surveys or administrative sources). The successful implementation of a number of EU initiatives will be crucial, namely the European Data Strategy, the Open Data Directive, the European Data Governance Act, and

([3]) See Opinion of the EMCO and SPC on Social Investment – Endorsement, 15418/23, available here, Informal Working Group on Social Investment – Social Investments for resilient economies and Technical Note on Social Investment for Resilient Economies from the Belgian Presidency of the Council of the European Union (2024).

([4]) (European Commission, 2023j). See also Council conclusions on the future of the European Health Union: A Europe that cares, prepares and protects.

([5]) The 2020 Strategic Foresight Report defined resilience as the 'ability not only to withstand and cope with challenges but also to undergo transitions in a sustainable, fair, and democratic manner' (European Commission, 2020a).

([6]) (European Commission, 2023j); (European Commission, 2019b); (Hemerijck, Ronchi and Plavgo, 2023).

([7]) (Hemerijck, 2018); (Hemerijck, 2015); (European Commission, 2019b).

([8]) (European Commission, 2023a).

the European Data Act. Some social investment and related enabling and complementary policies may have spillover effects, complicating the attribution of returns to a specific intervention. ([9])

Methods to estimate returns on social investment are complex and cannot account for all relevant elements at once. Cost-benefit analysis can be used to measure the monetary returns of policies. Where returns cannot be expressed in monetary units, multi-criteria decision analysis considers a wide range of assessment criteria. ([10]) A complementary approach to cost-benefit analysis is a distributional impact assessment, which estimates income impacts for different income groups. ([11]) At micro level, many existing studies rely on microsimulations and counterfactual impact evaluations (CIEs). ([12]) Existing research at macro level often uses ex-post regression-based methods and micro-macro modelling. ([13]) The Council has endorsed voluntary guidance principles for evaluating the economic effects of social investment, discussing methodological approaches and access and availability of data for research purposes among others. ([14])

There is wide public support among Europeans for social investment. When asked about areas where the EU should take action to prepare the future of Europe, people selected social investment in healthcare (38%), education, training and lifelong learning (22%), and active support to employment (17%). The majority (78%) of Europeans believe that overall public spending on key social policies should increase. ([15]) Views vary between countries, ranging from 45% in Denmark to 93% in Portugal, and strongly depend on personal characteristics and attitudes towards the government. ([16])

Safeguarding public finances and ensuring efficient spending on social investment is crucial. In its 2023 report, the High-Level Group on the Future of Social Protection and of the Welfare State in the EU emphasised the need to find new sources to sustainably finance social protection and social investment, including broadening the tax base and readjusting the revenue mix. This is particularly relevant against the present backdrop of higher debt levels, interest rates and investment needs, including in light of the green and digital transitions, the ongoing stepping-up of defence capabilities, and demographic changes. Certain social policies can also mitigate social risks and future social expenditures related to the costs of inaction, thus supporting macroeconomic stabilisation. ([17]) Evidence shows that when public investment and social protection expenditure are safeguarded, fiscal adjustments can have higher returns on growth in the long term. ([18]) In this context, it is key to ensure spending is efficient to safeguard public finances.

The EU promotes social investment at national level through various policy initiatives and EU funds. Several policies launched through the European Pillar of Social Rights and its Action Plan support individuals over their life course and help to build human capital, enhance access to quality inclusive education, broaden labour market opportunities, support lifelong learning, and combat poverty and social exclusion. Box 3.1 presents an overview of selected EU policies that foster social investment and contribute to upward social convergence. Several EU funds provide resources to support social investment at national level. The EU has financed several programmes to enhance cohesion and convergence across Member States and regions since the creation of the European Social Fund (ESF) in 1957 and the European Regional Development Fund (ERDF) in 1975, followed by an overarching cohesion policy since the 1980s. In addition, several more recent investments in social policies were implemented through the RRF, which helps Member States to recover from the COVID-19 pandemic while promoting EU priorities such as the green and digital transitions. These were largely also based on country-specific recommendations issued in the context of the European Semester and addressed in the national recovery and resilience plans. In addition, the Commission provides, through the Technical Support Instrument (TSI) and upon demand, technical expertise to Member States to design and

([9]) (Plavgo, 2023) ; ; (European Commission, 2016) ; ; (European Commission, 2024d); (Nieuwenhuis, 2022) and (Bakker and van Vliet, 2021).

([10]) (European Commission, 2020b).

([11]) In September 2022, the Commission issued a Communication on better assessing the distributional impact of Member States' policies (European Commission, 2022a).

([12]) Such as quasi-experimental methods and randomised control trials; (Crato and Paruolo, 2019).

([13]) (European Commission, 2024d).

([14]) (Employment Committee and Social Protection Committee, 2024).

([15]) 2024 Eurobarometer on Social Europe; 2022 Eurobarometer on Fairness, Inequality and Intergenerational Mobility.

([16]) Respondents who agreed that the national government takes account of the views of people like them when designing or reforming public benefits programmes and services more often think that the national governments should take measures to reduce income differences (85%, compared to 79% disagree and 66% neutral) (European Commission, 2023e).

([17]) See Council conclusion on the role of labour market, skills and social policies for resilient economies.

([18]) (European Commission, 2020b), (Balasundharam et al., 2023)

implement national or sectoral reforms and strategies to address labour and skills shortages and to anticipate future needs of the workforce. ([19])

([19]) Regulation (EU) 2021/240 of the European Parliament and of the Council of 10 February 2021 establishing a Technical Support Instrument (OJ L 57, 18.2.2021, p. 1–16).

Box 3.1: EU policies fostering social investment and upward social convergence

In November 2023, the Council endorsed an opinion of EMCO and SPC which underlined that social investment policies that strengthen skills, increase labour market participation and prevent exclusion have significant potential to support stronger and more inclusive economic growth and raise productivity levels. They are also crucial to implementing the principles of the **European Pillar of Social Rights** and facilitating the digital and green transitions. The EU has adopted many policy initiatives and measures to reinforce social investment at national level, which will help to foster social convergence and improve living conditions for citizens in the EU.

The **European Child Guarantee** was adopted by the Council in 2021 to prevent and combat social exclusion from the very beginning of people's lives. It guarantees effective access to a set of key services for children in need, including free ECEC, free education, free healthcare, healthy nutrition, and adequate housing. As part of the **European Care Strategy**, access to high-quality and affordable ECEC services is reinforced in the 2022 **Council Recommendation on early childhood education and care**, which revised upwards the **Barcelona 2030 targets on children's participation in ECEC** to 45% of children aged 0-2 and 96% of children from the age of 3 to compulsory school age. Those initiatives are expected to improve children's well-being and development, as well as increasing the labour market participation of parents (see Chapter 2, Section 4). The reinforced Youth Guarantee enhances employment opportunities of young people under the age of 30 by providing a good quality offer of employment, continued education, apprenticeship or traineeship within four months of becoming unemployed or leaving education.

To build the **European Education Area** (EEA), a genuine common space for quality education and lifelong learning across borders for all, the Commission ([1]) and the Council ([2]) have set out the building blocks of a single policy, strategy and investment framework for European cooperation in education and training, including strategic priorities for national reform and European cooperation, EU-level actions to support Member States in implementation, mobilisation of EU funds towards EEA priorities, a reformed governance framework and EU-level targets to measure progress. In this context several Council Recommendations and Communications were adopted.

To facilitate upskilling and reskilling throughout people's professional lives, in 2020, the Commission presented the new **European Skills Agenda** for sustainable competitiveness, social fairness and resilience. It sets out 12 ambitious actions for five years, contributing to upward social convergence in the EU and successful implementation of the green and digital transitions. Three Council Recommendations were adopted:

1. The 2020 Council Recommendation on vocational education and training (VET) defines key principles to ensure that VET flexibly adapts to labour market needs and provides quality learning opportunities for all age groups;
2. The 2022 Council Recommendation on micro-credentials promotes lifelong learning by supporting the development, implementation and recognition of micro-credentials;
3. The 2022 Council Recommendation on individual learning accounts aims to ensure that everyone has access to tailored training opportunities.

Education and training, labour market and social outcomes of some vulnerable groups are supported through the **EU Gender Equality Strategy 2020-2025**, the **Strategy for the Rights of Persons with Disabilities 2021-2030**, the **EU Roma strategic framework for equality, inclusion and participation 2020-2030,** the 2022 **EU Directive on adequate minimum wages** (which improves enforcement and monitoring of the minimum wage protection and promotes collective bargaining on wages), and the 2023 **Council Recommendation on adequate minimum income** (which pursues adequate income support, access to enabling and essential services, and labour market integration of those who can work). ([3]) In addition, the 2016 **Council Recommendation on the integration of the long-term unemployed into the labour market** supports long-term unemployed people by encouraging the registration of jobseekers with an employment service, promoting individual in-depth assessments of jobseekers' employability prospects, barriers to employment and previous job-search efforts, and offering job integration agreements. In 2021, the Commission adopted the **Social Economy Action Plan** to enhance social innovation, support the development of the social economy, and boost its social and economic transformative power. The 2023 **Council Recommendation on developing social economy framework conditions** aims to foster access to the labour market and social inclusion, while stimulating fair and sustainable economic and industrial development.

In 2021, the Commission put forward a **long-term vision for rural areas** to improve rural quality of life, achieve balanced territorial development and stimulate economic growth. In 2022, the Council adopted a **Recommendation on ensuring a fair transition towards climate neutrality.** It sets out guidance for Member States on promoting

([1]) Communication from the Commission on achieving the European Education Area by 2025.

([2]) Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030); Council Resolution on the governance structure of the strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030).

([3]) Other EU-equality strategies and inclusion frameworks that have important education, skills and/or labour market components include the EU anti-racism action plan (2020-2025), the LGBTIQ equality strategy (2020-2025), the Action Plan on integration and inclusion (2021-2027) and the EU strategy on combatting antisemitism and fostering Jewish life (2021-2030).

(Continued on the next page)

Box (continued)

quality employment, access to quality education and training, fair tax-benefit and social protection systems, and access to affordable essential services. In the context of the digital transition, the Council adopted a **Recommendation on the key enabling factors for successful digital education and training** and a **Recommendation on improving the provision of digital skills and competences in education and training** in 2023. In 2024, the Commission put forward the **Action Plan on Labour and Skills Shortages**.

Finally, to support individuals throughout all stages of their life, the **European Care Strategy**, accompanied by the 2022 **Council Recommendation on long-term care**, aims to ensure that long-term care is timely, comprehensive, accessible, affordable and of high quality, including fair working conditions and training for care staff, and support for informal carers. The Commission launched the **New European Bauhaus** and the **Affordable Housing Initiative**, as well as the **European Platform on Combating Homelessness**, to increase the affordability, sustainability and inclusiveness of housing.

3. SELECTED TYPES OF SOCIAL INVESTMENT

This section examines how selected types of social investment can support individuals and contribute to social convergence and growth in the EU. This chapter considers as social investment those investments and reforms that, on top of pursuing social objectives and therefore fostering upward social convergence, have substantial positive returns on economic growth through their impact on human capital and productivity, including via stronger innovative capacity and absorption of new technologies, and/or labour supply in line with the considerations on the definition of social investment discussed in Section 1. ([20]) It provides in-depth analysis and new evidence of how investment in education, including ECEC, skills and ALMPs, can support individuals over their life course and contribute to upward social convergence and growth in the EU.

3.1. Investing in early childhood-education and care (ECEC)

Investment in high-quality ECEC leverages long-term upward convergence in a range of socioeconomic outcomes. Participating in ECEC helps children to develop key cognitive, language and physical skills early in life, boosting their employment prospects and reducing their likelihood of facing poverty risks. ([21]) It also enables parents of young children, particularly mothers, to work, contributing to higher employment rates among women and potentially reducing child poverty, as well as addressing labour shortages.

ECEC participation reduces socioeconomic inequalities from very early ages. Evidence shows that when children from disadvantaged backgrounds participate in high-quality ECEC it has particularly beneficial effects on cognitive skills and school readiness, improving their educational attainment. ([22]) This makes equal access to good quality ECEC central to securing equal opportunities for children in disadvantaged situations, reducing social exclusion and improving intergenerational social mobility. Recent estimates show that across most Member States, adults who faced socioeconomic disadvantage in their childhood are, on average, between 3 pp and 6 pp less likely to be in employment and have 20% lower earnings than those from more privileged backgrounds. A large part of this effect is linked to the fact that socioeconomic disadvantage in childhood tends to translate into lower levels of education, health, and lifetime work experience. The total economic cost of childhood disadvantage ([23]) is estimated at 3.4% of GDP in the EU, ranging from 1.4% of GDP in Finland to 6.1% of GDP in Lithuania. ([24])

Women's participation in the labour market can be enhanced through more comprehensive provision of ECEC. ([25]) Recent estimates in eight Member States show that increasing participation of under-3s in ECEC to 50% could improve mothers' labour participation rates by between 5% and 30%. ([26]) Further analysis shows that the effect on labour market participation could be particularly positive for mothers from low-income families (9 pp to 21 pp increase, depending on the country), potentially helping

([20]) See technical note from the Belgian Presidency of the Council of the European Union, 2024, on social investment for resilient economies, available here.
([21]) (OECD, 2021).
([22]) (European Commission, 2022c); (OECD, 2021).
([23]) These costs are composed of labour market penalties (costs of lost employment and individual earnings losses) and the health-related costs stemming from the individual's loss of quality-adjusted life years.
([24]) (OECD, 2022).
([25]) (EIGE, 2020).
([26]) (Narazni et al., 2023).

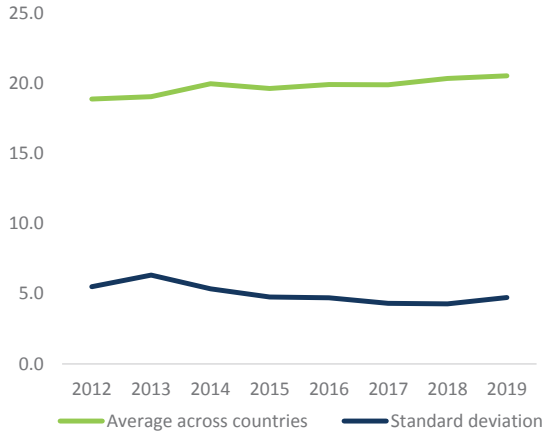
to reduce poverty risks for the children in those households. ([27]) Such increases in women's labour market participation could help to halve the gender gap in employment by 2030, in line with the commitment outlined in the European Pillar of Social Rights Action Plan as part of the efforts to reach the EU 2030 headline employment target. This would help to generate sizeable long-term improvements in economic performance at EU level (see Chapter 2, Section 4).

Public expenditure on ECEC has increased slightly in the EU since 2012, with variation between countries showing a slight decline. For the 15 Member States with data consistently available over time, ([28]) ECEC public expenditure per pupil (measured as share of national GDP per capita) increased from 18.9% in 2012 to 20.5% in 2019 (Chart 3.1). In 2019 (the last year for which data are available), the ECEC expenditure per pupil ranged from 12.2% of GDP per capita in Austria to 29.8% in Bulgaria. The variation in expenditure on ECEC between countries declined slightly over time, as evident in the downward sloping line of the standard deviation as a measure of cross-country variation (Chart 3.1). There may also be variations in ECEC quality across countries, but these are extremely difficult to assess with existing data. Box 3.2 presents the European Commission's latest estimates of future investment needs in ECEC.

Chart 3.1

Mild growth in public expenditure on ECEC accompanied by signs of convergence across countries

Public expenditure on ECEC per pupil (% of national GDP per capita) and variation across countries (standard deviation), 15 Member States



Note: Reported average across countries is unweighted. Data not available consistently across the 2012-2019 period for: Belgium, Czechia, Denmark, Ireland, Greece, Croatia, Cyprus, Latvia, Hungary, Malta, Portugal, Romania.

Source: Eurostat dataset [educ_uoe_fine09].

Click here to download chart.

([27]) (European Commission, 2023a).

([28]) Eurostat data are only available for the 2012-2019 period. Data are missing for several Member States for start/end year and those Member States are excluded from the analysis. Denmark and Malta are missing data for some intermediate years and are also excluded.

Box 3.2: Future investment needs in Early Childhood Education and Care

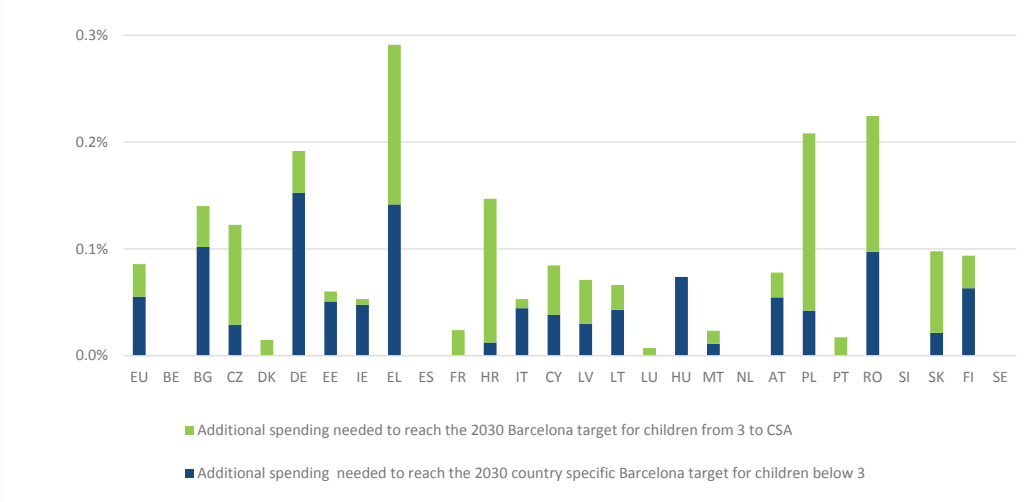
Further investment is needed to increase children's participation in ECEC to the Barcelona target levels at EU level, notably for the under-3s. Such investment would help to address several barriers to children's access to ECEC, including the lack of available places and high access costs. For example, by creating new ECEC places, training, hiring and paying new staff, or refurbishing existing/building new facilities, while ensuring accessibility and affordability.

Additional yearly spending on ECEC needed to reach the EU Barcelona Targets by 2030 would amount to 0.085% of EU GDP (more than EUR 11 billion) according to recent estimates. ([1]) This amount varies by Member State, ranging from 0% (in Member States that have already reached the target) to nearly 0.3% in Greece and around 0.2% in Germany, Poland and Romania (Chart 1).

Chart 1

Additional investment needs in ECEC vary by Member State

Yearly additional investment in ECEC needed to meet the 2030 Barcelona targets (% of GDP), by Barcelona targets



Source: DG EMPL calculations based on Eurostat data.

([1]) The additional investment need is estimated as follows. First, based on current participation rates (Eurostat ilc_caindformal dataset), the number of additional children who should be enrolled to meet the Barcelona targets is estimated. This number is then multiplied by the yearly average public expenditure on ECEC per participating child (Eurostat educ_uoe_fine09 dataset) to obtain the additional yearly spending needs to reach the Barcelona targets. It is assumed that the level of spending per participating child remains constant over the years.

A large majority of preschool age children participate in ECEC in the EU, with participation rates converging across Member States. ([29]) The share of children aged three to compulsory school age (CSA) participating in ECEC broadly stagnated, going from about 87% in 2014 to 89% in 2023 (Chart 3.2). The COVID-19 pandemic resulted in a temporary decline in participation and a spike in cross-country differences in 2020. In 2023, national participation rates still varied considerably. For example, participation was above the Barcelona target of 96% ([30]) in seven Member States (Belgium, Denmark, Spain, France, Hungary, the Netherlands, Sweden), but was less than 80% in three countries (Poland, Romania, Slovakia). Cross-country differences declined between 2014 and 2023, as countries with lower participation rates caught up with those with higher participation. ([31])

While the average ECEC participation rate of the youngest children (0-2 years of age) rose over the last decade, disparities across Member States also increased. Over the last ten years, the share of children participating rose from about 28% in 2014 to 37% in 2023, with a short lapse during the 2020 closures due to the COVID-19 pandemic and an increase by 1.5 pp in 2023 compared to the previous

([29]) (Eurofound, a).

([30]) Note that the Barcelona target for this age group (3+) is based on UOE data (educ_uoe_enra21) and not on data from EU-SILC survey.

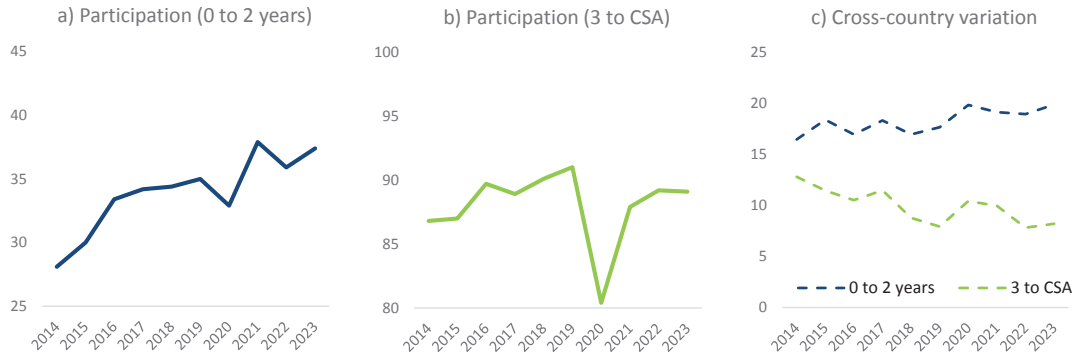
([31]) Standard deviation dropped from 5.3 to 4.7. Beta coefficient is negative (-0.07) and statistically significant at 1% significance level.

year (Chart 3.2). To date, ten Member States ([32]) have reached the revised Barcelona participation target of 45% for this age group set at EU level, ([33]) while six countries recorded participation rates lower than 20% in 2022. ([34]) In the remaining Member States, between 20% and 45% of children participated in ECEC. The overall level of disparity between countries grew somewhat since 2014, despite evidence that some Member States with low participation rates caught up with others. ([35]) Low levels of participation in ECEC for some Member States call for higher investment. Box 3.2 provides an estimate of future investment needs in the EU assuming constant level of spending per participating child.

Chart 3.2

Growing ECEC participation accompanied by convergence in attending preschool education

Proportion of children participating in ECEC, by age group and variation across countries, 2014-2022, EU-27



Note: Data missing for Italy in 2020.

Source: DG EMPL calculations based on EU-SILC data [datasets ilc_caindformal (for 2014) and ilc_caindform25 (from 2015 onwards)].

Click here to download chart.

Young children from disadvantaged backgrounds are less likely to participate in ECEC, especially in some Member States. ([36]) In 2022, children facing different types of disadvantage (monetary poverty, material deprivation, low work intensity) had participation rates at least 10 pp lower than those from non-disadvantaged backgrounds, regardless of the type of disadvantage (Chart 3.3). ([37]) However, this gap varied between Member States, with children at risk of poverty or social exclusion participating considerably less often (by more than 20 pp) in some Member States, ([38]) and at a similar rate or more often than those not at risk in others. ([39]) On average across all Member States, children who can benefit most from attending ECEC tend to participate least. ([40])

([32]) Belgium, Denmark, Spain, France, Luxembourg, Malta, the Netherlands, Portugal, Slovenia, Sweden.

([33]) Specific targets apply to Member States that have not reached the 2002 Barcelona target of 33% participation for this age group.

([34]) Bulgaria, Czechia, Lithuania, Poland, Romania, Slovakia.

([35]) Beta coefficient is negative (-0.03) and statistically significant at 10% significance level.

([36]) (Employment Committee and Social Protection Committee, 2023).

([37]) Data for 2023 was not available at the time of writing. For analysis of earlier periods, see (European Commission, 2019b).

([38]) Belgium, France, Italy, the Netherlands, Spain.

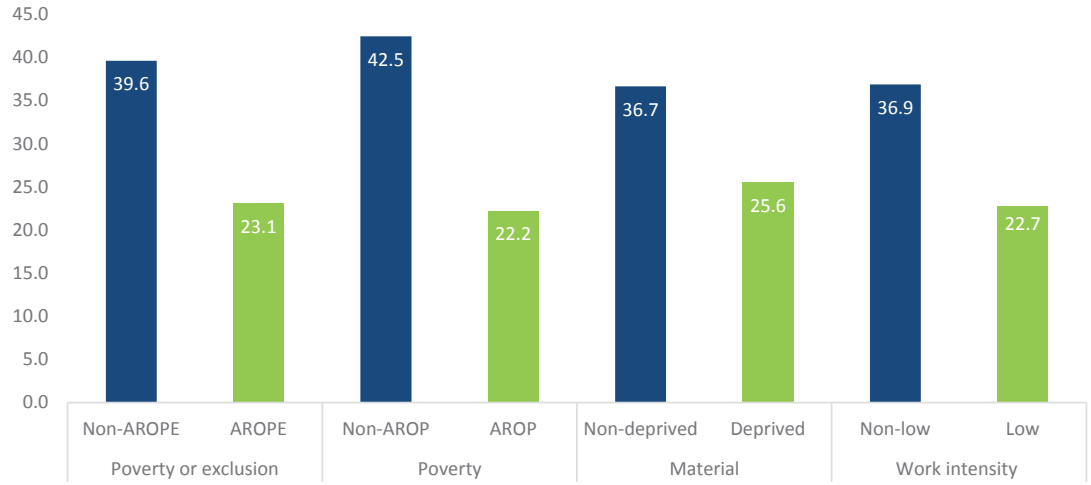
([39]) Bulgaria, Denmark, Croatia, Hungary, Austria, Romania.

([40]) Convergence analysis cannot be carried out due to data limitations.

Chart 3.3

Children from disadvantaged backgrounds participate less in ECEC

Proportion of children aged 0 to 2 participating in ECEC, by population group (% of all children in the group), 2022, EU-27



Source: DG EMPL calculations based on EU-SILC microdata.

Click here to download chart.

3.2. Impact of investment in school education on learning outcomes

Education underpins long-term gains for individuals and enhances society's human capital. It does so by increasing people's labour market opportunities and mitigating poverty and social exclusion risks. Individual benefits accrue to the economy and society as a whole, fostering the productivity, competitiveness and innovation necessary for successful implementation of the green and digital transitions. Simulations assuming a gradual improvement over 15 years show that increasing basic skills by 25 PISA ([41]) points could lead to a 0.5 pp higher average annual growth rate in EU GDP in the long term. ([42]) Recent evidence from Portugal suggests that well-designed reforms expanding the Vocational Education and Training (VET) offer in public schools increase upper secondary graduation rates. The reform introduced a VET track alongside an academic track (high school), which particularly benefitted those that otherwise tend to leave school earlier. The effects are larger for low-achieving students, children of less educated parents, and welfare recipients, including leading to higher wages and other positive outcomes for participants over several years. ([43]) Evidence shows that low-income countries with higher shares of graduates with tertiary education experienced stronger catching-up towards the average GDP per capita between 2008 and 2021. ([44])

During the COVID-19 pandemic, the composition of total public expenditure shifted away from education. Spending on education was 9.5% of total public expenditure in 2022, 0.6 pp below pre-COVID-19 pandemic levels in 2019 (see Chapter 1, Section 3.6). However, the latest available data from 2022 show that expenditure increased slightly (by 0.1 pp) compared to 2021, potentially indicating some signs of recovery. In 2022, over 70% of public spending on education went to school education, which includes both (pre-)primary and secondary levels, each accounting for roughly similar shares (34% and 36.8%, respectively) (Chart 3.4). Tertiary education received 16.6% of public expenditure on education. At Member State level, the allocation of public expenditure to different education levels is driven by various factors, such as the duration of compulsory education, relative wages in the education sector, or class size. ([45]) Between 2012 and 2022, the share spent on school education increased slightly (+0.4 pp), driven by pre-primary and primary levels (+2.5 pp), but decreased for tertiary education (-0.5 pp) which might (partly) reflect the changes in demographic composition.

([41]) See OECD's Programme for International Student Assessment (PISA) here. It measures 15-year-olds' ability to use their reading, mathematics and science knowledge and skills to meet real-life challenges.

([42]) (European Commission, 2019b).

([43]) (Ferreira and Martins, 2023).

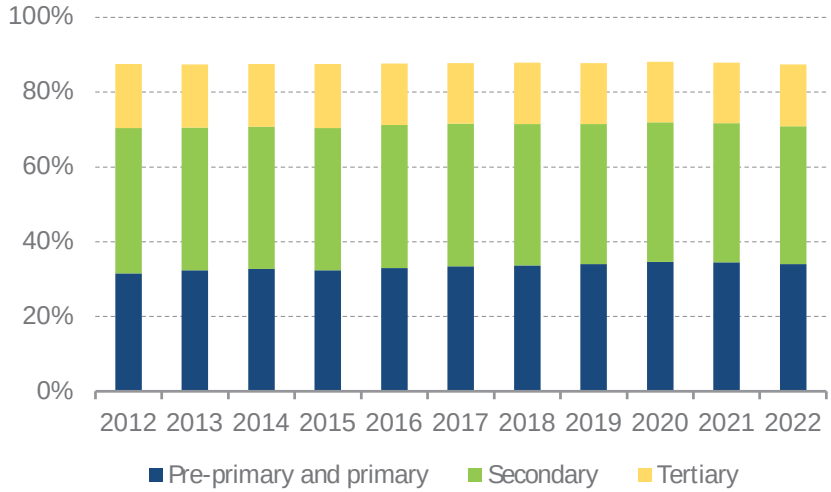
([44]) (Eurofound, b).

([45]) (European Commission, 2023g).

Chart 3.4

School education receives the largest share of public expenditure on education

Weighted average EU share of government expenditure on education, by education level, 2012-2022



Note: School education includes (pre-)primary and secondary levels. Further categories of public expenditure on education not included in the chart are post-secondary non-tertiary education, education not definable by level, subsidiary services to education, research and development (R&D) education, and education not elsewhere classified.

Source: Eurostat [gov_10a_exp].

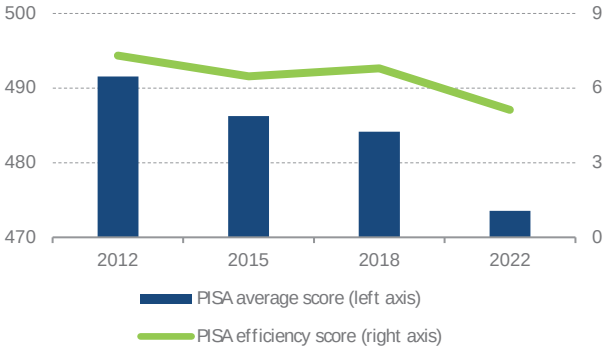
Click here to download chart.

PISA outcomes point to worsening basic skills in the EU over time, with potential negative impacts on EU competitiveness and wage developments in the longer term. The average PISA score across reading, mathematics and science subjects decreased by 10 points since the last wave in 2018, and by 18 points over the last 10 years in the EU (Chart 3.5). ([46]) While this declining pattern was also observed in other industrial countries (with the average PISA score dropping by 9 points since 2018 and 19 points since 2012 in OECD countries on average), the EU performed quite poorly compared to other advanced economies such as the US, the UK, Canada or Japan. In 2022, for example, it had the highest percentage of underachievers across all three subjects, and one of the lowest shares of top performers among those countries. Although PISA outcomes had already started to decline prior to the COVID-19 pandemic, learning losses during lockdowns might have intensified this downward trend among other possible factors. Box 3.3 presents a case study on Italy, showing the persistent impacts of COVID-19 pandemic school disruptions on student achievement, with learning losses still significant in 2021 and 2022.

Chart 3.5

Basic skills and efficiency of cumulative expenditure on education per student decreased post-COVID-19 pandemic

Average EU PISA score across reading, mathematics and science, and PISA EU efficiency score, 2012-2022



Note: PISA efficiency score measures the number of PISA points produced by USD 1 000 (expressed in purchasing power parity (PPP)) of cumulative expenditure on education per student, following the methodology in European Commission (2023d). It is calculated as 1 000 x (average PISA score over reading, mathematics and science)/cumulative expenditure per student from age 6-15 (in USD, PPP), and can be interpreted as an approximate measure of the pay-off from additional expenditure for a school education system. Yearly averages for Member States for which data are available.

Source: OECD PISA data for 2012, 2015, 2018, 2022.

Click here to download chart.

([46]) To approximate the average annual pace of learning among 15-year-olds, OECD (2023) used 20 score points in PISA as a common benchmark for all countries. However, this benchmark should not be used to convert the differences across countries and changes over time in PISA scores as years-of-schooling equivalents, given differences in the pace of learning at a given age, organisation of schooling, resources invested in education, and quality of education across countries, as well as possible changes in the pace of learning over time.

Box 3.3: Impact of COVID-19 pandemic schooling disruptions on student achievement in Italy

Italy was one of the countries first and most severely hit by the COVID-19 pandemic. It experienced 13 weeks of complete school closure in spring 2020 and 22 weeks of partial closures during the 2020-2021 school year. The study found greater learning losses in reading than in mathematics and among boys rather than girls, with impacts found to be mixed for different socioeconomic backgrounds.

In Italy, learning losses due to online or hybrid learning were greater in reading than in mathematics. ([1]) This is somewhat inconsistent with previous research suggesting that learning in mathematics is more dependent on in-person instruction than reading, and that, in the EU, learning deficits in mathematics were significantly larger than in languages and other subjects. ([2]) As the study on Italy considered students of two different secondary level grades, this inconsistency could not be explained by the better ability of most parents to help children with reading rather than mathematics.

There were significant gender differences in the impact of physical school closures in Italy. On average, girls did better than their male peers. For reading and mathematics, the learning loss in 2021 was much lower for girls than for boys, with the gender gap widening further in 2022 and 2023 (Table A.1 in the Annex). These results are consistent with both pre- and post-COVID-19 pandemic international patterns, with the difference ascribed to higher levels of intrinsic motivation and self-discipline among girls than boys.

Learning losses for students from different economic, social and cultural backgrounds presented a mixed pattern. The OECD measured parents' socioeconomic and cultural status (ESCS measure). In Italy, students in the highest ESCS quartile suffered the largest learning loss in 2020-2021 (Table A.1 in the Annex). ([3]) This finding for Italian students is inconsistent with EU-level findings ([4]) and may be due to differential baselines, with standardised scores for the lowest ESCS quartile considerably below the population average and thus potentially too low to register substantial losses due to remote learning measures.

Learning losses among Italian students in 2021 showed no significant difference in the impact of remote and hybrid learning between native students and students of foreign origin. In the first two years after the outbreak of the COVID-19 pandemic, natives and first- and second-generation migrants showed the same learning loss associated with online and hybrid learning in reading and mathematics (Table A.1 in the Annex). However, in 2023, the learning loss among native pupils was larger than among their first- and second-generation migrant peers in mathematics.

Italian students' performance did not bounce back to pre-COVID-19 pandemic learning levels upon their return to regular schooling modalities. Similar to other research, ([5]) the study does not detect signs of learning loss recovery. The considerable learning loss observed in 2021 remained largely stable in 2022 and 2023 compared to 2021. ([6]) If targeted policies do not mitigate learning losses and increase education systems' resilience to disruption, the accumulation of losses could amplify the long-term negative effects on human capital and, eventually, the economy. ([7])

([1]) (Amer-Mestre and Flisi, 2024). The study selected students in Italy at the end of upper secondary school (grade 13) as the treatment group, and students at the end of lower secondary school (grade 8) as the control. It implemented a difference-in-differences strategy to identify the causal effects of online and hybrid learning on performance, estimating the effect of school closures not only on one cohort who was in grade 13 in 2020-2021, but also for subsequent cohorts in grade 13 up to the 2022-2023 school year.

([2]) (European Commission, 2024b).

([3]) Due to data quality concerns for later years, only the impact on the 2020-2021 school year was analysed.

([4]) Immigrant or ethnic minority backgrounds of students and parents contributed to learning disadvantages during school disruptions (European Commission, 2022d).

([5]) (European Commission, 2024).

([6]) The observed return of educational achievement to pre-COVID-19 pandemic levels in some countries (e.g. France) may have resulted from changes in examination content rather than learning recovery (European Commission, 2022).

([7]) (Di Pietro, 2023).

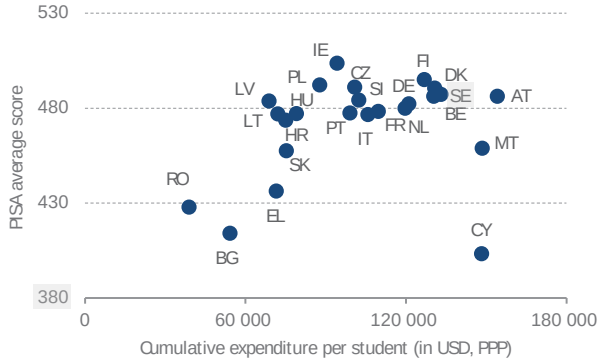
Higher public expenditure on education is not sufficient to achieve better outcomes in basic skills pointing to other structural factors and the importance of reforms. Countries with higher levels of spending per student from ages 6-15 do not always have higher PISA scores. In 2022, Cyprus and Malta achieved similar average PISA scores compared to Bulgaria and Croatia, respectively, but at much higher cumulative expenditure per student (Chart 3.6). At the same time, some countries with similar levels of spending per student (Austria, Malta and Cyprus) achieved different levels of PISA scores (with the PISA score in Austria being 27 and 83 points higher than Malta and Cyprus, respectively). Prior to the COVID-19 pandemic, the efficiency of spending on education outcomes, as measured by the PISA efficiency

score, ([47]) showed some smaller variations from year to year but remained quite stable on average (Chart 3.5). In 2022, the average PISA efficiency score recorded a sharper decline, with an additional investment of USD 1 000 per student translating into an increase of merely 5.1 points of average PISA scores, down from 6.8 points in 2018. Efficient spending ensures that resources are channelled to areas where they have sufficient impact and are spent effectively, enhancing value for money. Research suggests that reducing inefficiencies in spending on education could lead to substantial gains in the EU, with the potential to increase annual growth of GDP per capita by 0.8 pp in the long term. ([48])

Chart 3.6

Higher expenditure on education does not necessarily lead to better PISA outcomes

Average EU PISA score across reading, mathematics and science, and cumulative expenditure on education per student from ages 6-15 (USD, PPP), 2022



Note: Data missing for Luxembourg (full set of data) and Estonia (cumulative expenditure per student).

Source: OECD PISA 2022 data.

Click here to download chart.

Equity and excellence in education can be promoted at the same time. Evidence from PISA studies suggests that Member States with lower levels of underachievement tend to reach higher levels of top educational performance (i.e. a higher share of students achieving a high level of competence in a specific grade). ([49]) However, alongside the quantity of spending, other factors such as the quality of education and allocation of resources can also play a key role in determining the effectiveness of investment in education. In 2019, the Council ([50]) identified several policy actions that could help to improve efficiency, effectiveness and equity of education. ([51]) These include enhancing quality and equal opportunities through policies ranging from ECEC to higher education, VET and adult learning, fostering competencies in line with future labour market needs, reconsidering financing models for education and training (including through synergies with EU funds), and fostering synergies with complementary structural policies.

High-quality education for all will help Europe achieve its economic and social objectives and is thus a key element of the European Pillar of Social Rights. The Commission is working with Member States on the development of the European Education Area. This will be underpinned by a comprehensive policy, governance, and investment framework, EU-level targets on education and training to measure progress, and EU-level actions and funding to support European cooperation and national reforms in Member States.

3.3. Investing in skills

Effective investment in skills can increase employment, competitiveness and productivity, fostering economic growth. ([52]) Changing skills needs, particularly in the context of the green and digital transitions, will require additional investment in adult learning, upskilling and reskilling. These investments can improve employability prospects, addressing skills shortages and mismatches. ([53])

([47]) The definition of PISA efficiency score follows the methodology used in European Commission (2023d). It measures how many PISA points are produced by USD 1 000 (in PPP) of cumulative expenditure per student from age 6-15 and is calculated as 1 000 x (average PISA score over reading, mathematics and science)/cumulative expenditure per student from age 6-15 (in USD, PPP), and can be interpreted as a rough measure of the pay-off from additional expenditure for a school education system.

([48]) (European Commission, 2020c).

([49]) (European Commission, 2024e).

([50]) In its joint Economic and Financial Affairs (ECOFIN) and Education, Youth, Culture and Sport (EYCS) formation, 8 November 2019.

([51]) (European Commission, 2021b).

([52]) (Hemerijck, 2017).

([53]) (European Commission, 2023a).

Investment in lifelong learning helps people to develop their skills in line with labour market needs throughout their entire career, increasing their chances of remaining in the labour market. A labour force with an up-to-date skillset is central to boosting productivity and growth, supporting wages as well as firms' competitiveness. ([54]) The European Pillar of Social Rights Action Plan sets an EU headline target of at least 60% of adults participating in training each year by 2030, compared to a participation rate of 39.5% in 2022. The analysis below examines a selection of social investments and illustrates the return on investment in skills of young unemployed people and productivity-enhancing training for the broader population. Within this, Box 3.4 provides additional analysis on the investment needs related to re- and upskilling in the context of the green transition.

Investment in skills for young unemployed people

Young people who are not in employment nor in education or training (NEET) face a higher risk of becoming disconnected from the labour market and social exclusion, with potential negative long-term effects on their entire working lives. ([55]) In the context of the European Pillar of Social Rights Action Plan, the EU strives to reduce the share of young people who are NEET, from 12.6% in 2019 to 9% by 2030. Different types of interventions and pathways can support young people to enter the labour market. For instance, a majority of trainees feel that a past traineeship experience supported their professional development and made their transition from school to work easier. ([56]) Vocational education and training and apprenticeships can help develop job-related skills and help young people enter the labour market.

Additional well-designed investment to increase the skills of young unemployed workers is expected to increase employment across all ages in the long term. Investing in the skills of young unemployed people (aged 15-24) can tackle high youth unemployment rates. The average macroeconomic effects of skill-enhancing interventions for young unemployed people for the six countries with the highest youth unemployment rates in 2022 ([57]) were estimated using DG EMPL's Labour Market Model (LMM) (Box A.1 in the Annex). ([58]) Based on the model simulation, young workers are expected to experience the strongest employment gains, with the number of people aged 15-24 employed increasing by 1.4% due to around a 0.1 pp increase in investment in skill-enhancing training (Chart 3.7). Overall, employment is expected to increase by 0.25%, with early investment in skills assumed to have a sustainable, although decreasing, impact on employability throughout people's lives. Increasing investment in skills for young unemployed people can contribute to upward social convergence. Assuming that training is well-designed – and thus effective at enhancing skills and reducing unemployment rates – the analysis suggests that the additional spending would lead to a small reduction in disparities and prompt catching-up in unemployment and employment rates, not only for the beneficiaries of the training (aged 15-24) but for the overall working-age population. ([59])

Helping young people to improve their employability leads to broader positive macroeconomic returns, driving investment and GDP. The initial cost of the measure is estimated to be more than offset by larger economic returns. The overall rise in employment is expected to trigger additional investment to equip new workers with additional capital. As a result, GDP is projected to increase by 0.18% in the long term, compared to a scenario without any additional investment in young unemployed people (Chart 3.7).

([54]) (European Commission, 2019a).

([55]) CEDEFOP n.d.

([56]) (European Commission, 2023d).

([57]) Greece, Spain, Italy, Romania, Slovakia, Sweden.

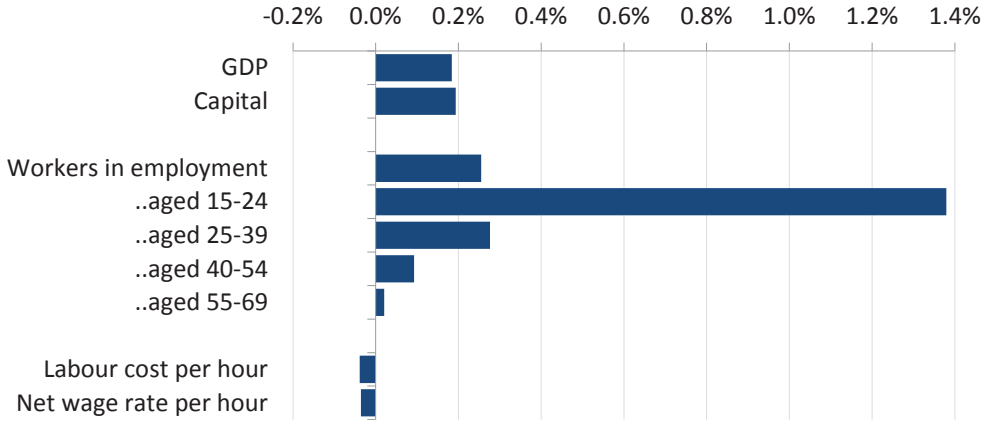
([58]) DG EMPL's LMM is a general equilibrium model that places a special emphasis on labour market institutions.

([59]) Beta coefficient is negative and statistically significant for both unemployment (aged 15-24) and employment (aged 15-24; aged 25-59) rates, respectively. An analysis of the employment rate of 15-64-year-old was not possible due to the age breakdown of the LMM.

Chart 3.7

Skills-enhancing investments for young unemployed people are expected to increase employment and GDP in the long-term

Long-term impact of investment in skills of young unemployed people (aged 15-24) compared to no-policy (reference) scenario



Source: DG EMPL calculations based on LMM.

Click here to download chart.

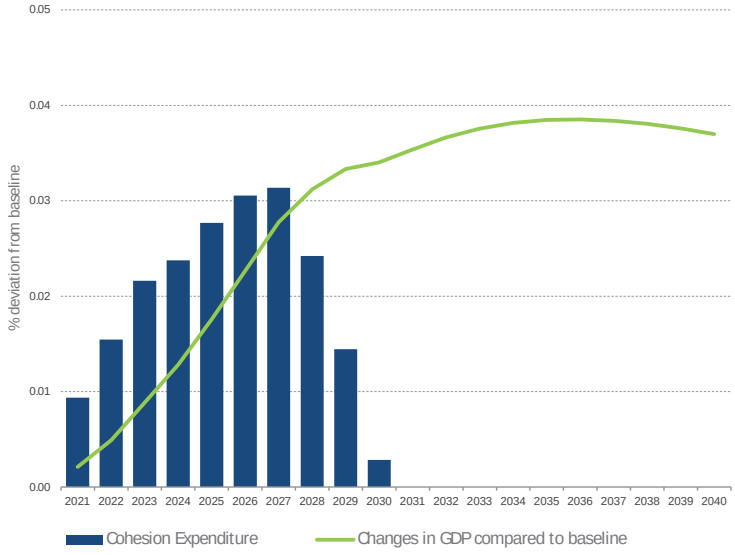
Investments in skills enhance productivity

Regional investment in skills in the context of the European Social Fund Plus (ESF+) can lead to significant increases in economic activity in the long term. The European Commission's RHOMOLO model is used to simulate the potential regional macroeconomic impact of ESF+ investments in skills over the 2021-2027 funding period, which are assumed to increase labour productivity (Box A.1 in the Annex). ([60]) The simulations illustrate that ESF+ funding for skills, in addition to the direct employment and social benefits expected in the areas and sectors targeted by the projects financed, could increase EU GDP by up to 0.039% at its peak in 2036 relative to baseline GDP (Chart 3.8). GDP is expected to remain above its baseline level even after expenditure on ESF+ terminates, as the structural effects of increased labour productivity and corresponding adjustments by firms and households materialise. Overall, the initial cost of the measure, at less than 0.035% of GDP per year, is more than offset by the long-term economic returns, which are significantly larger than the original investment.

Chart 3.8

Investment in skills can lead to long-term GDP gains

Expenditure on skills-related ESF+ programmes over 2021-2027 programming period (% over baseline GDP) and expected impact of the investment on GDP (% deviation from baseline GDP)



Note: 'Baseline' constitutes a scenario with no additional investment.

Source: JRC calculations based on RHOMOLO model.

Click here to download chart.

Targeted investments in skills can lead to employment gains throughout the funding period and in the long-term. At their peak in 2026, EU-level employment gains are projected to be 0.024% compared to the baseline scenario of no investment, with the largest employment gains expected for the lowest

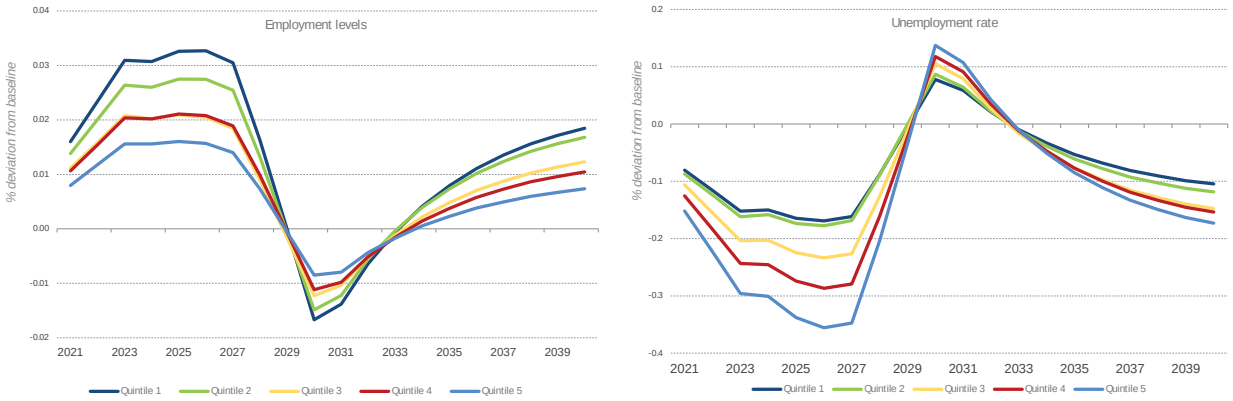
([60]) (Christou et al., 2024).

income quintiles (Chart 3.9). ([61]) This impact is larger in regions with more significant investments. ([62]) When the demand stimulus related to the ESF+ funds ends, employment decreases and temporarily dips below its initial level, ([63]) before recovering and rising above the initial level in the long term. ([64]) Developments in the unemployment rate mirror these results, with decreases in unemployment rates projected in the short and long term, as vacancies for upskilled individuals who benefitted from the programmes are filled (Chart 3.9).

Chart 3.9

Investment in skills can improve labour market outcomes in the short and long term

Expected EU-level impact of ESF+ investment in labour productivity-enhancing programmes on levels of employment (left) and unemployment rate (right) by income quintile (% deviation from baseline)



Note: Income quintile 5 indicates the richest income quintile and quintile 1 the poorest.

Source: JRC calculations based on RHOMOLO model.

Click here to download chart.

Targeted investment in skills has the potential to contribute to sustained regional economic convergence. The simulation suggests upward convergence in GDP per capita between NUTS2 regions in the EU as a result of the ESF+ 2021-2027 funding period (Chart 3.10). ([65]) Regions with lower relative GDP per capita are projected to grow more strongly as a result of the funding, catching up with regions with higher initial GDP per capita levels. ([66]) Despite evidence of regional convergence in employment levels during the funding period, ([67]) these effects are not sustained in the medium and long term. This could be because of an overall improvement in outcomes in regions not directly receiving ESF+ funding but experiencing positive spillover effects. This is in line with previous analyses showing that improvements in skills-matching in some regions may have positive spillover effects into other regions. ([68]) These overall improvements would thus limit the potential for convergence across regions (Chart A.1 in the Annex). ([69]) Individuals might also need to be retrained in the medium to long term in line with changing skills needs, reducing the effect of the intervention in the medium to long term. ([70]) More generally, the convergence impact of skills-related ESF+ investments on labour market outcomes

([61]) The lower income quintiles also experience larger increases in real wages compared to the richest income quintile, as their labour productivity increases relatively more.

([62]) For instance, in the Bulgarian region BG31, Severozapaden, and the Portuguese region PT20, Região Autónoma dos Açores, impacts at the peak are +0.195% and +0.185%, respectively.

([63]) The temporary decrease in employment below initial levels stems from modelling specificities. In the model, agents are myopic and make decisions based only on past and current economic conditions. Thus, they cannot anticipate the end of the monetary injection (at the end of the implementation period), nor the full positive impact of the supply-side effects of the policy intervention that will materialise in the future. The combination of positive shocks (increased government spending and increased productivity) and negative shocks (contributions needed to finance the policy) together with the asymmetric nature of the shocks across regions and agents being myopic can lead to a temporary negative effect at the end of the implementation period.

([64]) Despite ESF+ spending of less than 0.1% of EU GDP for each year of the programming period, employment would still be 0.013% higher than the baseline 20 years after the start of the programme.

([65]) The coefficient of variation of the GDP per capita indicator follows a similar decreasing trend to the standard deviation.

([66]) Beta coefficient is negative (-0.008) and statistically significant at 1% significance level, measured at year 10 relative to baseline, and remains negative and significant over the time horizon of the analysis (20 years since the start of the funding period).

([67]) Beta coefficient is negative (-0.0004) and statistically significant at 1% significance level, measured at year 5 relative to the baseline.

([68]) (European Commission, 2023a).

([69]) This finding can be explained through other regions profiting from the increased demand and increased production in regions benefitting from the investment, for example through the provision of intermediate inputs and additional trade dynamics that may improve labour market outcomes in regions not originally affected.

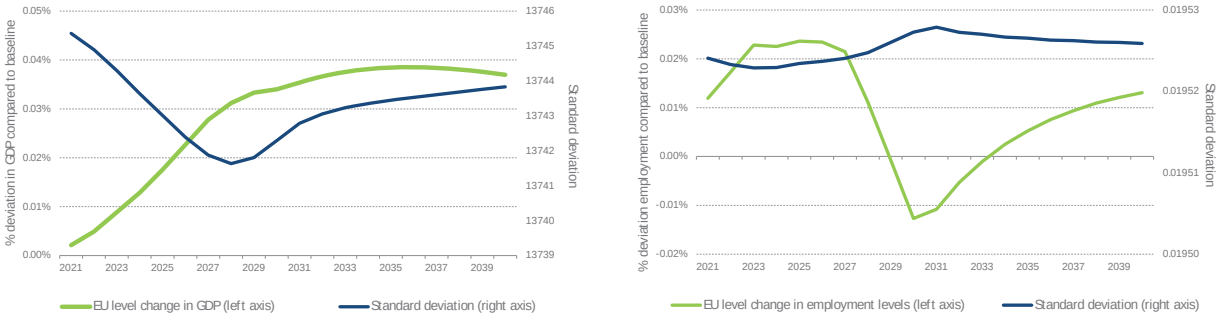
([70]) The immediate effect of the intervention is modelled to depreciate over time.

appears to be limited, as the changes in the standard deviations (as a measure of convergence) are relatively small in scale (Chart 3.10).

Chart 3.10

Investment in skills contributes to upward regional convergence in GDP, with only limited short-term convergence in labour market outcomes

EU-level change in GDP compared to baseline and variation across regions, 2021-2040 (left). Average change in employment levels and variation across regions (right), 2021-2040



Note: Standard deviation is a measure of regional variation, the higher the standard deviation, the higher the regional variation.
Source: JRC calculations based on RHOMOLO model.
Click here to download chart.

Box 3.4: Investments for a fair green transition

Social investment can help to advance the fair green and digital transitions and adapt to demographic change in the EU. This box provides novel evidence on how social investment can support the fair green transition, based on recent findings from the DG EMPL-JRC AMEDI and DISCO(H) project. ([1])

Investment needs in the transition towards a climate-neutral economy: policy context

The ambition of the European Green Deal requires massive public and private investment and systemic change, including re- and up-skilling the workforce, changes in business models, and lifestyles.([2]) Since its launch in 2019, the EU has set climate targets in law to reduce greenhouse gas (GHG) emissions by at least 55% by 2030, and the Commission recommended a new 2040 target to reduce GHG net emissions by 90% (both compared to 1990 levels). The Council Recommendation on ensuring a fair transition towards climate neutrality([3]) guides Member States to adopt concrete policy packages on quality employment in the green economy, skills and training, social protection, and access to essential services (including affordable housing, energy and transport), and to align investment flows with the investment needs for a just transition.

Investments in decarbonisation, infrastructure, as well as human capital are central to achieving the goals of the European Green Deal. While the importance of social investments linked to the green transition is recognised in the 2020 European Green Deal Investment Plan, human capital and social infrastructure are still underfinanced. Investment needs for retraining, reskilling and upskilling in manufacturing of strategic net-zero technologies alone are estimated at around a total of EUR 3.1 to 4.1 billion by 2030.([4]) The EU is currently mobilising investments for a fair green transition through several funding mechanisms, such as the Just Transition Mechanism (EUR 55 billion over 2021-2027), the Social Climate Fund (EUR 86.7 billion over the period 2026-2032), the RRF (EUR 275 billion),([5]) and ESF+ (EUR 9.6 billion over the period 2021-2027).

The analysis presented in this box assesses social investment needs related to reskilling and upskilling with a particular focus on the renewable energy sector. To scale up manufacturing of clean technologies (wind, solar, batteries, heat pumps, electrolysers), the European Commission has proposed the Net Zero Industry Act (NZIA). According to the needs assessment accompanying the Act, between 30 000 and 100 000 additional jobs will be created by 2030 to produce wind and solar-related technologies, depending on factors such as specific technologies used, pace of adoption and innovation, scale of investment, and policy frameworks. However, the biggest job creation will be across the value chain: the installation and deployment of wind and solar power generation could lead to about 130 000 to 145 000 additional skilled workers in other sectors by 2030. ([6]) The main sectors affected by the investment in wind and solar power generation are construction and services, where the bulk of these jobs are concentrated (about 90%). This is followed by the transport sector, where additional jobs come mainly from the infrastructure development for the installation of windmills. According to new estimates, the additional wind and solar capacity to deliver European Green Deal targets may require an investment in skills of EUR 1.1 to 1.4 billion by 2030. Achieving the REPowerEU targets will require the creation of over 3.5 million jobs by 2030. ([7])

Countries with a higher share of renewables in power generation tend to have lower job creation and training costs associated with the installation and deployment of wind and solar power generation by 2030 and vice versa. Countries such as Belgium, Ireland and Italy need a high number of additional workers, about 1 job created per thousand people in the labour force by 2030, due to the deployment needs of wind and solar power generation (Figure 1, left map). The average share of renewables between 2020 and 2022 (based on Eurostat data) is comparably low for these countries (between 27% and 38%). Conversely, job creation should be close to 0.4 jobs per thousand people in Portugal or Sweden, which have a higher share of renewables (59% and 78%, in wind and solar power generation, respectively). Similarly, Member States with relatively higher installed capacity today show lower (re-)training expenses per person in the workforce, as additional job creation is not as high (Figure 1, right map). For instance, Belgium, Ireland and Italy plan to undergo a catching-up process in wind and solar deployment between 2025 and 2030. Currently, they are exploring their available renewable potential and increasing the share of wind and solar in their energy mix, stimulating the need for different skillsets and tasks in those sectors (e.g. drivers bringing blades for wind power generation to sites).

([1]) See Assessing and Monitoring Employment and Distributional Impacts of the European Green Deal (AMEDI) project here. See Distributional Assessments of the Consumption Footprint of Households in the EU (DISCO(H)) project here.

([2]) The European Green Deal is Europe's policy framework for the transition towards a fair, modern, resource-efficient and carbon-neutral society and economy by 2050.

([3]) (European Commission, 2022c)

([4]) Equivalent to EUR 8 749 to EUR 8 754 per worker (European Commission, 2023a)

([5]) (European Commission,). See Recovery and Resilience Scoreboard here.

([6]) (European Commission, 2023b)

([7]) (EurObserv'ER, 2022)

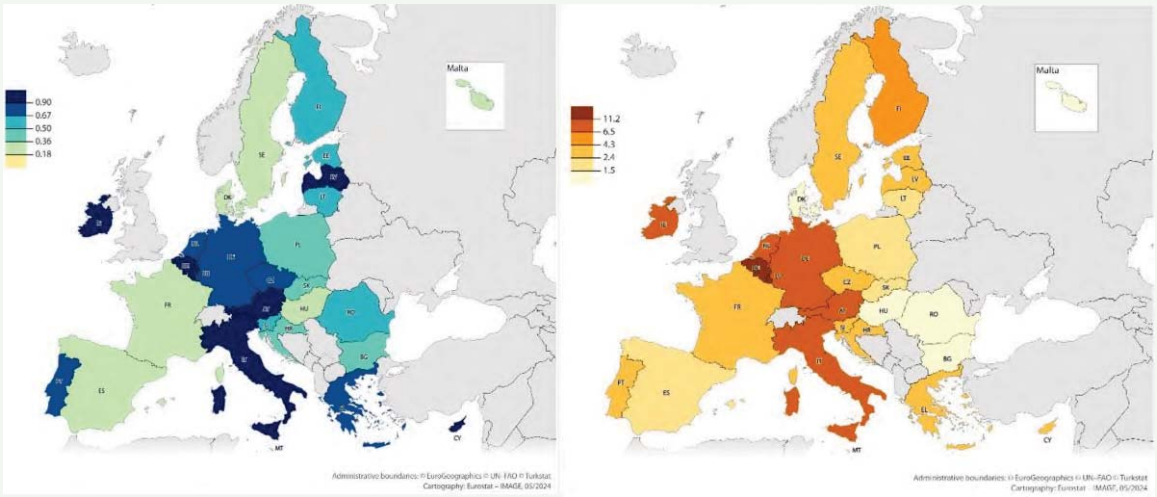
(Continued on the next page)

Box (continued)

Figure 1

Job creation and training costs for installation and deployment of wind and solar power generation by 2030 is expected to be more prominent in Member States with a lower share of renewables now

Additional workers needed for installation and deployment of wind and solar power generation by 2030, per thousand people (left map). Training costs (EUR per person) in the labour force in 2030 (right map)



Source: JRC calculations under AMEDI project, based on information from multiple sources (PRIMES and POTEnCIA energy models, EU 2020 Reference scenario (European Commission, 2021), JRC-GEM-E3 model investment matrix for the EU-27 and retraining costs estimates per person per year (European Commission, 2020c); (Vandeplas et al., 2022).

Investing on promoting lifestyle changes and levers to achieve climate neutrality

Beyond investing in human capital, investing in affordable and sustainable mobility, food, energy and housing is also central to achieving climate neutrality in a fair manner. Changes in lifestyles and behaviours are important levers to transition towards a resource-efficient, climate-neutral, and pollution-free circular economy and could help to reduce GHG emissions by 40-70% by 2050.([8]) Sustainable lifestyles are 'a cluster of habits and patterns of behaviour embedded in a society and facilitated by institutions, norms and infrastructures that frame individual choice, in order to minimise the use of natural resources and generation of wastes, while supporting fairness and prosperity for all'.([9])

Reducing the consumption impacts of those contributing most to resource use, pollution and GHG emissions can enable a fair transition. The distributive aspect of the consumption footprint shows that the consumption patterns of higher income groups have larger environmental and climate impacts. Higher income households tend to consume significantly more than other income groups, resulting in higher environmental and climate pressures. The consumption footprint for the 20% of the population with the highest income is 1.8 times higher than the footprint of the poorest 20% in the EU (see Chart A3.2 in Annex). Higher income households have larger environmental and climate impacts due to their mobility and transport choices (22%), as well as from the consumption of household goods and appliances (11%). On the other hand, as poorer households spend a higher proportion of their income on food (54%) and housing-related expenses and particularly energy (25%), measures to encourage and enable more sustainable lifestyles need to keep affordability in mind if they are to avoid having regressive effects. More granular information on the precise types of expenditure within each broad consumption is needed in order to design policies that can foster sustainable lifestyles in a fair manner. In this context, the design of green tax reforms is crucial to ensure that these measures are fair and do not reinforce inequalities.

The design of green tax reforms is crucial to ensure that these measures are fair and do not reinforce inequalities. Simulations demonstrate that while carbon taxes such as country-level or EU-level flat carbon taxes can be regressive, this effect can be offset by compensatory measures such as lump-sum cash transfers. ([10]) Green allowances that exempt either the first 2.2 tonnes (compatible with the Paris Agreement, which is around 2-3 tonnes per year, according to some studies, and in line with 1.5 degree lifestyles) ([11]) or 5.17 tonnes (compatible with the EU 2030 target) of consumed GHG from taxes can have inequality-decreasing effects, as they target emissions related to luxury product consumption.

([8]) (Creutzig et al., 2022)

([9]) (Akenji and Chen, 2016)

([10]) Under Green EUROMOD (based on HBS-SILC data and information from Exiobase) developed by the AMEDI project.

([11]) (Ivanova and Wood, 2020); (Akenji et al., 2021).

3.4. Investing in Active Labour Market Policies

Well-functioning and effective active labour market policies ([71]) can provide economic and social returns in the medium to long term. Research suggests that investment in ALMPs is associated with economic growth and positively impacts employment by helping to reduce labour mismatches and shortages, equipping workers with relevant skills, supporting job transitions, and strengthening labour market participation of underrepresented groups. ([72]) Evidence shows that job search assistance programmes are more effective for disadvantaged participants, while employment subsidies and training work better for long-term unemployed people. A review of studies on evaluations of ALMPs found that the average impact of ALMPs increases in the medium to long-term, that women and long-term unemployed people tend to benefit more than other demographic groups, and that ALMPs have more positive effects during recessions. Design and implementation of programmes also play a role in ALMPs' efficacy, which may depend on the availability of other social policies, including access to ECEC. ([73]) In light of rapid technological advances and changing skills needs, reinforcing investment in ALMPs through lifelong learning policies is key to maximise returns. ([74])

According to impact evaluation studies, spending on ALMPs can yield positive returns in the longer term, including longer working careers, with corresponding tax revenue, social security contributions and better pensions for workers. ([75]) A recent evaluation identified positive fiscal effects for a direct job creation scheme in Austria in the long run, focused on disadvantaged groups. ([76]) For social outcomes, ALMPs have poverty-reducing effects, particularly for those with lower levels of skills. ([77]) Recent policy impact evaluations in Germany also found positive effects of ALMP participation on well-being. ([78]) However, more evidence is needed from microeconomic evaluations of the social outcomes of ALMPs to better understand their social investment returns for health, well-being, and education-related outcomes, as well as to compare the efficiency of spending on different types of ALMPs.

Investment in ALMPs can have positive effects on employment and GDP well beyond the timeframe of the original investment. Simulations using the RHOMOLO model (Box A.2 in the Annex) estimate the long-term effects of increasing the labour supply through ALMP interventions funded through ESF+ in the 2021-2027 programming period. Regional ESF+ investments in ALMPs are expected to improve employment outcomes in the 20 years following the original investment, reaching a peak of +0.11% in 2027 (Chart 3.11). The investments are also projected to raise economic activity in the long-term, more than offsetting the initial investment, increasing EU GDP by approximately 0.029% per year, even 20 years after the start of the programme (Chart 3.12). ([79])

([71]) 'Active labour market policies (ALMPs) are publicly financed interventions intended to improve the functioning of the labour market by inducing changes in labour demand and labour supply, as well as their matching process. Specifically, these policies aim to preserve existing jobs and create new employment opportunities, encouraging labour market attachment and the reintegration of long-term unemployed and inactive individuals, and facilitating the job-search and job-matching process. In practice, they target labour market outsiders – all unemployed and inactive individuals' (Ernst et al., 2022).

([72]) (Sakamoto, 2020) ; (Card, Kluve and Weber, 2018) ; (Levy-Yeyati, Montané and Sartorio, 2019).

([73]) (Kluve et al., 2019); (Plavgo and Hemerijck, 2021); (Nieuwenhuis, 2022).

([74]) (European Commission, 2016).

([75]) (Brown and Koetti, 2012).

([76]) (Walch and Dorofeenko, 2020).

([77]) (Rovny, 2014); (Cammeraat, 2020); (European Commission, 2016).

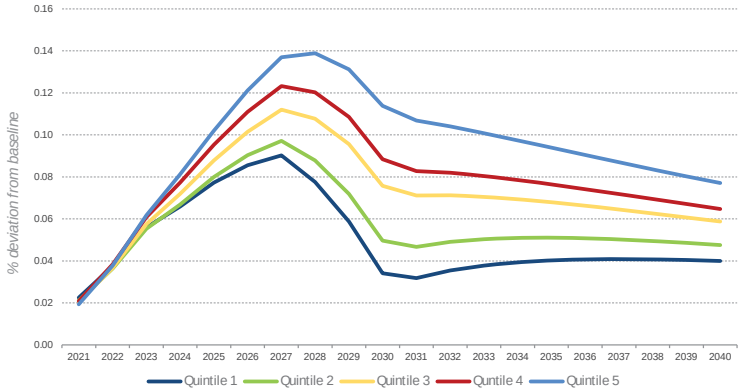
([78]) (Tübbicke and Schiele, 2023).

([79]) Funds are expected to be disbursed over 10 years in accordance with the time profile detailed in Table A.3 in the Annex. On average, ESF+ spending reaches 0.023% of GDP over the 10 years.

Chart 3.11

Investment in ALMPs is projected to increase employment during and after the investment period

Expected impact on employment of investment in labour supply increasing intervention fields of the ESF+, 2021-2027 programming period, by income quintile (% deviation from baseline)



Note: Income quintile 5 indicates the richest quintile, and quintile 1 the poorest.

Source: JRC calculations based on RHOMOLO model.

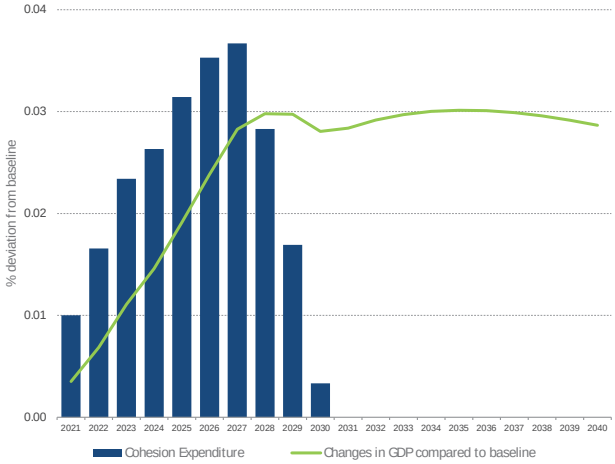
Click here to download chart.

Targeted investments in ALMPs at regional level can contribute to socioeconomic convergence between regions. Increases in labour supply in the targeted regions are projected to lead to a reduction in regional disparities in GDP per capita, with EU regions with lower baseline GDP per capita growing faster, prompting a catching-up effect. That catching-up effect is expected to be sustained in the long term, with regions with lower baseline GDP per capita still projected to have stronger increases in per capita GDP 20 years after the beginning of the investment period (Chart 3.13, left). ([80]) The rate of change towards upward regional economic convergence is stronger in the short term. ([81]) The analysis also points to increased employment and upward social convergence in employment levels during the period of deployment of funds and beyond. ([82]) Regions with lower initial employment rates are projected to witness stronger increases in employment for the years where the funds are disbursed, ([83]) leading to a reduction in disparities between regions during the programming period. However, this catching-up effect is not expected to be sustained in the long term (Chart 3.13, right).

Chart 3.12

Investment in ALMPs can lead to long-term GDP gains

Expenditure on labour supply increasing intervention fields of ESF+ programmes, 2021-2027 programming period (blue bars, % over baseline GDP) and expected impact on GDP (green line, % deviation from baseline GDP)



Source: JRC calculations based on RHOMOLO model.

Click here to download chart.

([80]) Beta coefficient is negative (-0.0006 and -0.0005, respectively) and statistically significant at 1% level, measured at year 10 and year 20, respectively, relative to baseline.

([81]) This long-term effect is even more pronounced and sustained until 2040, when considering the coefficient of variation of the GDP per capita indicator, a relative measure (see discussion in Chapter 2).

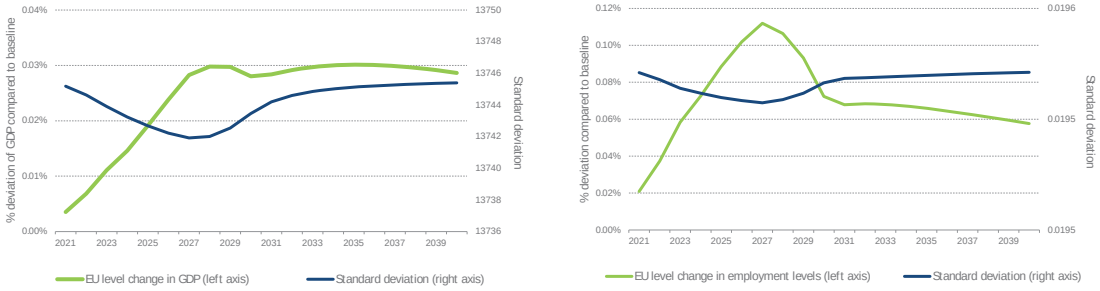
([82]) Measured relative to the regional population.

([83]) Beta coefficient is negative (-0.0004) and statistically significant at 1% level, measured at year 5 relative to baseline.

Chart 3.13

Investment in ALMPs is projected to contribute to upward regional convergence in GDP and employment rates

EU-level change in GDP compared to baseline and variation across regions, 2021-2040 (left). Average change in employment levels and variation across regions 2021-2040 (right).



Note: Standard deviation is a measure of regional variation, the higher the standard deviation, the higher the regional variation.

Source: JRC calculations based on RHOMOLO model.

Click here to download chart.

Investments in ALMPs also have positive impacts on employment-related earnings and social outcomes. A European Commission-OECD project applies CIEs to generate new causal evidence based on national administrative and survey data. The evaluations showed positive impacts of vocational training programmes in Lithuania and Finland on employment and income, particularly for women and older jobseekers. ([84]) Recently, CIEs were conducted for wage subsidies and training programmes in Greece (Box 3.5) and public work programmes in Ireland (Box 3.6).

([84]) (European Commission, 2023a)

Box 3.5: Impact evaluations of wage subsidy and training programmes in Greece

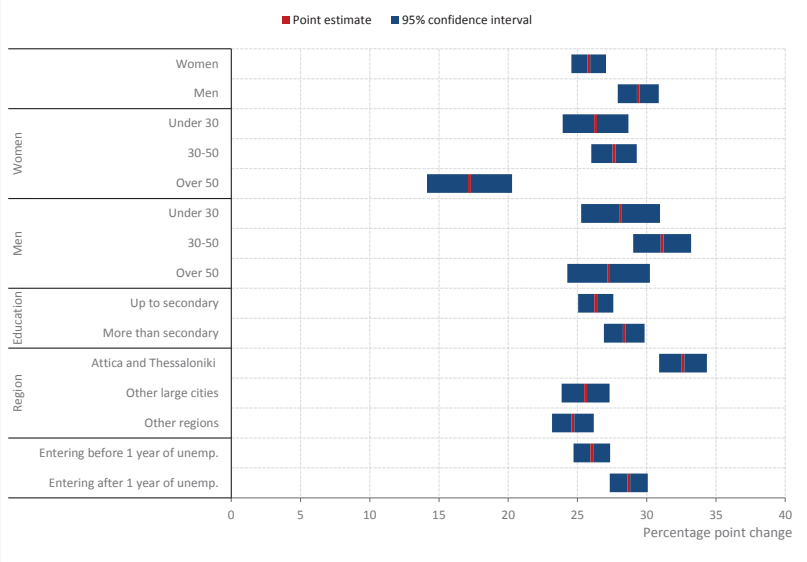
Recent evidence in Greece suggests that wage subsidies have a positive effect on employment and earnings, with participants almost twice as likely to be employed after three years. Jobseekers participating in the wage subsidy programmes evaluated were more likely than non-participants to become employed and to spend more days in employment (Chart 1). While the largest impacts are observed immediately after individuals enter the programme, positive employment effects persist even months after the programme ends. More specifically, three years after entering the programme, wage subsidy participants are almost twice as likely to be employed as similar individuals in the comparison group. Wage subsidies are particularly effective at boosting employment for long-term unemployed people, compared to participants who have been unemployed for less than one year. ([1])

Three Greek training programmes have increased the probability of employment, particularly for younger people and those with higher levels of education. One programme offers training in high-demand sectors, while the two others provide tertiary education graduates with ICT training (targeting individuals aged 25-29 and 30-45 years). One year after starting a training programme, CIEs show that the probability of employment is 7 pp higher for training participants compared to similar non-participants, reaching 9 pp two years after entering the training. Training programmes are effective for many different groups of jobseekers, especially for younger people and those with higher levels of education. For instance, two years after entering training programmes, men and women under 30 are more likely to be employed than similar jobseekers who do not participate in training (19 pp and 16 pp, respectively). The higher effect for jobseekers with higher education levels is somewhat driven by ICT training, which is available to jobseekers with tertiary education.

Chart 1

Wage subsidies in Greece are particularly effective for certain groups, including long-term unemployed people

Effect in employment probability (pp) 36 months after starting wage subsidy programmes



Note: The analysis presents nearest-neighbour propensity score matching results which matches individuals based on several characteristics. More information can be found in (OECD, 2024b).

Source: (OECD, 2024b).

([1]) (OECD, 2024b)

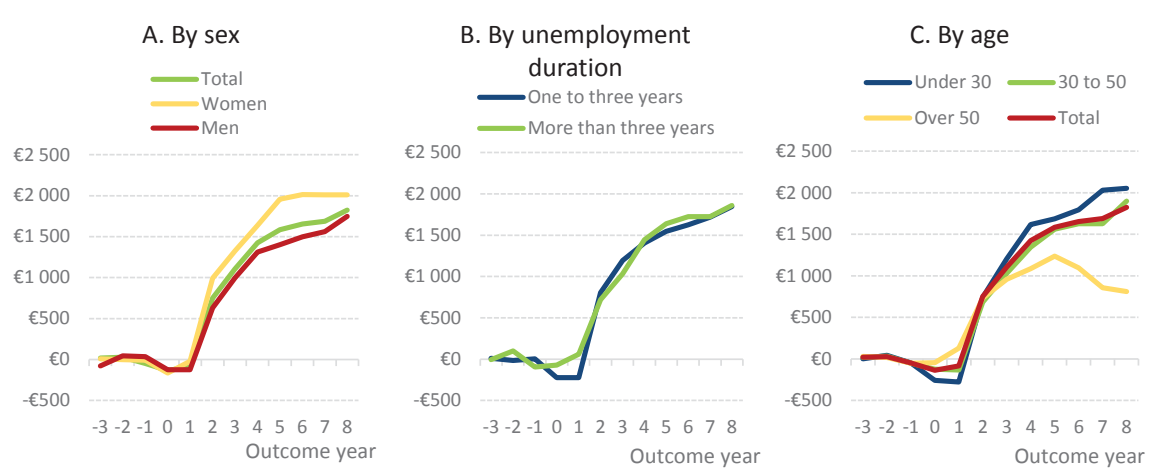
Box 3.6: Evaluation of job creation schemes in Ireland

In Ireland, two direct job creation schemes were found to have positive effects on earning outcomes for (mostly long-term unemployed) participants. The research found that, after initial lock-in effects, the Community Employment (CE) scheme, ([1]) which primarily targets people who have been unemployed for more than 12 months, has a positive impact on total annual earnings, raising the probability of any earnings in a given year and annual weeks of employment in the regular labour market. More specifically, CE participants earn around EUR 2 000 per year more than matched non-participants and work an average of four weeks longer per year. The Tús (Start) scheme, a community work placement scheme offering short-term work opportunities for long-term unemployed people, was also found to have a positive, albeit modest, impact on the number of jobseekers exiting the unemployment register, as well as a lasting positive effect on earnings (Chart 1). ([2])

Chart 1

Women and younger jobseekers experience a greater boost in earnings following participation in Ireland's Tús scheme

Impact of Tús on earnings, by sex, unemployment duration and age



Source: (OECD, 2024a) calculations based on Department of Social Protection administrative data.

The two schemes have positive impacts on social outcomes, with different effects on specific groups of long-term unemployed people. Participation in CE reduces future reliance on disability allowance and enhances take-up of education subsidies, indicating that the scheme has possible broader health and engagement in education effects. Six years after starting CE, former participants are 6 pp less likely to receive disability allowance, compared to similar participants who did not enter the scheme. This impact is even stronger for older jobseekers. Younger CE participants seem to benefit more in respect of labour market outcomes. For the Tús scheme, women, and jobseekers under 30 experienced a slightly greater increase in their earnings (Chart 1).

([1]) CE is a public work programme and is one of the most widely used ALMPs for long-term unemployed people in Ireland. Its main objectives are to connect jobseekers with the labour market to increase employment levels and to promote social inclusion, as it seeks to reduce social isolation and social barriers for jobseekers.

([2]) (OECD, 2024a)

4. IMPACT OF HOUSING POLICIES ON POVERTY REDUCTION AND UPWARD SOCIAL CONVERGENCE

Access to social housing or housing assistance of good quality for those in need is enshrined in Principle 19 of the European Pillar of Social Rights and is a relevant determinant of people's labour market outcomes. A number of social policies can complement and further support social investment. These include, for example, social protection and housing policies. Access to affordable and adequate housing is crucial for reducing poverty and social exclusion. It also broadens people's ability to access opportunities in education and the labour market, and positively influences people's physical and mental health. In its 2018 report, the High-Level Task Force on Investing in Social Infrastructure in Europe underlined the importance of investment in housing – particularly affordable housing – for promoting upward social convergence in the EU. Similarly to housing policies, social protection can also act as enabler for effective social investment. A focus on the role of social protection is provided in Box 3.7.

House prices, together with the available stock of housing and mortgage rates, affect the affordability of housing for prospective homeowners and tenants. Easier access to mortgages, including via low interest rates, usually increases demand for houses which can subsequently drive up house prices. These reflect the value of real estate transactions, including second homes, holiday homes and dwellings used for investment, and thus have a limited direct impact on monthly housing costs for tenants in the short term. ([85]) However, by reducing the affordability of homeownership, higher house prices make renting more appealing, increasing demand for rentals and hence contributing to higher rents. Higher house prices and interest rates can also be taken into account by landlords when setting rents for new lease contracts, contributing to higher rents over time thus increasing housing costs for tenants.

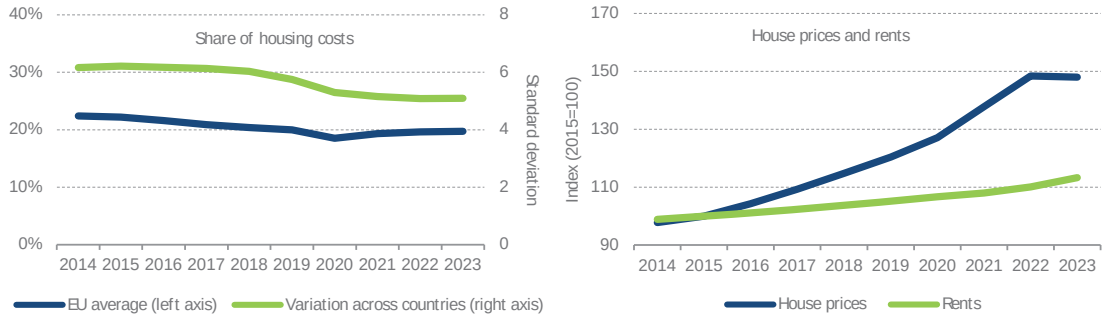
Housing prices and rents have increased considerably over the last decade. After the substantial increase recorded between 2014 and 2022 (51.8%), house prices started to moderate in 2023 (-0.3%), due to weakening borrowing capacity following the increases in interest rates. However, rents continued their upward trend (+11.3% since 2014, and +3% in 2023), resulting in higher housing costs for tenants (Chart 3.14).

Housing costs constitute a substantial part of household disposable income and cannot be easily reduced in the short term. ([86]) The share of housing costs in household disposable income decreased from 22.4% in 2014 to 18.5% in 2020. While still below 2014 levels, the share of housing costs increased again to 19.7% on average in the EU by 2023 (Chart 3.14). ([87]) This was likely driven by the increase in housing costs, mostly due to higher electricity and gas prices, as well as increases in rents and interest rates of mortgages. Member States with the highest shares of housing costs in household disposable income exhibited stronger reductions over this period. ([88])

Chart 3.14

Share of housing costs in household disposable income declined but house prices increased sharply between 2014 and 2023

Weighted EU average share of housing costs in household disposable income and variation across countries (in standard deviation, left chart), and house price index and rent index (right chart), 2014-2023



Note: In the left chart, 2021 data exclude France, which did not report housing costs in 2021. Standard deviation is a measure of cross-country variation, the higher the standard deviation, the higher the cross country variation.

Source: Eurostat [ilc_mded01], [prc_hpi_a] and [prc_hicp_aind].

Click here to download chart.

Housing policies can help improve housing affordability. At national level, housing policies can include the provision of social housing, housing allowances, tax deduction for housing costs, and utility subsidies, as well as rent regulation or subsidies for improving energy efficiency. ([89]) These policies often target specific population groups (e.g. low-income households, tenants vs homeowners) and can have other objectives, such as improving the quality of housing or increasing homeownership. Some housing policies, in particular housing allowances, need to be targeted to help contain the fiscal cost and ensure they are not translated into higher housing or rental prices. The impact of housing policies on housing cost reduction depends on many factors. These include their generosity, coverage and take-up, regulatory environment, stock of housing supply and requirements for renovation, as well as employment, environmental, urban and spatial policies**.** The analysis below examines how two housing policies, -

([85]) (European Commission, 2019a).

([86]) Housing costs include mortgage interest payments for main dwelling net of any tax relief (for owners), rental payments (for tenants), structural insurance, mandatory services and charges (sewage removal, refuse removal, etc.), regular maintenance and repairs, taxes on dwelling, and the cost of utilities (water, electricity, gas and heating). Mortgage interest payments and rental payments are considered gross of housing benefits (i.e. housing benefits are not deducted from the total housing cost). For tenants, only those costs paid by tenants are taken into account (as opposed to those paid by landlords). For more analysis of housing affordability, see (European Commission, 2019a).

([87]) Housing costs analysed constitute average costs as a share of disposable income, thus mark considerable heterogeneity by different factors such as location, as well as household composition and potential adjustments in the choice of dwelling and behavioural responses (in terms of the type of housing chosen) to changes in housing costs or in income.

([88]) Beta coefficient is negative (-0.04) and statistically significant at 5% significance level.

([89]) See (Eurofound, 2023b) for a more detailed mapping of housing policies in the Member States.

housing allowances and social housing - contribute to poverty reduction. These two policies have been selected on the grounds of data availability. Housing allowances are intended to compensate for housing costs based on a means-test and can be granted to both tenants and owner-occupiers. ([90]) As a proxy for social housing, this report uses social rent subsidies for tenants, thereby capturing the difference between social rent and estimated market rent for the dwelling. ([91])

Housing policies are relevant for the labour market outcomes of individuals. The lack of affordable housing may affect the accessibility to good quality education, training and job opportunities, and discourage labour mobility, increasing the probability of higher unemployment rates and contributing to labour and skills shortages. ([92]) Living in poor quality accommodation can negatively affect health and well-being, likely reducing productivity. In turn, worse labour market outcomes (e.g. being unemployed, frequently moving in and out of employment, working on a fixed contract, receiving a lower wage) might prevent housing conditions from improving in the absence of buffers. For example, they might reduce the ability to pay rents and the chances of obtaining a mortgage, especially in more expensive areas with better job opportunities, limiting mobility, or not providing sufficient means to improve housing quality. ([93]) The design of housing policies and their complementarities to other policies also matter. For instance, in the presence of high transaction costs, housing policies supporting home ownership might reduce labour mobility, increase the acceptance of lower wages or increase demand.

Increasing the supply of housing, including by investing in social housing, is very often essential to improve housing affordability, especially for households with lower incomes. Social dwellings are usually publicly owned (with countries investing in the stock of social housing, enabling them to benefit from an economic rent accruing to owners of property) or semi-privately owned (by housing corporations) but can also be privately owned. ([94]) Social housing usually takes the form of rental accommodation provided at below-market prices. In recent decades, social housing models in Europe have increasingly focused on lower-income households, primarily targeting older people and single-parents, while other vulnerable groups, such as single-person households, households without children, and migrants, are often low on the priority list or not eligible for social housing. ([95]) In addition to improving housing affordability, social housing can support macroeconomic objectives by easing supply bottlenecks, thereby mitigating house price pressures. This can in turn help to address labour shortages. ([96]) Social housing also plays a key role in housing first-type programmes for homeless people. In this respect, social and affordable housing policies underpin the EU social economy strategy. ([97]) More broadly, increasing the supply of housing can require a coherent mix of investments and reforms to address diverse issues such as the supply of basic infrastructure, spatial planning and other regulatory restrictions, or an insufficient supply of qualified labour.

The stock of social housing is quite low in the EU, with big investment gaps. The lack of affordable, good quality housing has several structural drivers, including low incentives, bottlenecks in construction and investment gaps regarding in particular energy efficiency and social housing production. The construction of social housing has decreased across the EU in recent decades, and some countries, particularly in Eastern Europe, have privatised large parts of the social housing stock. ([98]) Currently, social housing as a proportion of the overall housing stock exceeds 20% in only three Member States: the Netherlands (34.1% in 2021), Austria (23.6% in 2019) and Denmark (21.3% in 2022). It is between 10% and 20% in France (14% in 2018), Ireland (12.7% in 2016) and Finland (10.9% in 2021). ([99]) Long waiting lists are common in Member States with both larger and small social housing stocks, reducing the effectiveness of social housing in improving housing affordability for the most vulnerable households. ([100]) This issue is intensified by tenants who continue to occupy social housing after their income improves. While this chapter focuses on the effects of housing policies on tenants and owner-occupiers, supply-side

([90]) Housing allowances compensate for housing costs, such as rent, gas, electricity, heating, water or utility bills. They can be granted to both tenants and owner-occupiers, and do not include social housing policy organised through the tax-benefit system and capital transfers (notably investment grants).

([91]) Social rent subsidies (as a proxy for social housing) are estimated using the imputed rents variable (HY030G) for social tenants (those who indicated paying below-the-market rent) from EU-SILC. The imputed value is the equivalent market rent that would be paid for a similar dwelling to that occupied, reduced by any rent actually paid.

([92]) (Borg and Brandén, 2018).

([93]) (Arundel and John, 2017).

([94]) (Eurofound, 2023b) ; (European Commission, 2023f).

([95]) (Eurofound, 2023b); (Scanlon, Fernández Arrigoitia and Whitehead, 2015); (Heylen, 2024).

([96]) (Whitehead, 2017); (European Commission, 2023f).

([97]) (European Commission, 2021c).

([98]) (Scanlon, Fernández Arrigoitia and Whitehead, 2015) ; (Whitehead, 2017) ; (Eurofound, 2023b).

([99]) See OECD Affordable Housing Database here.

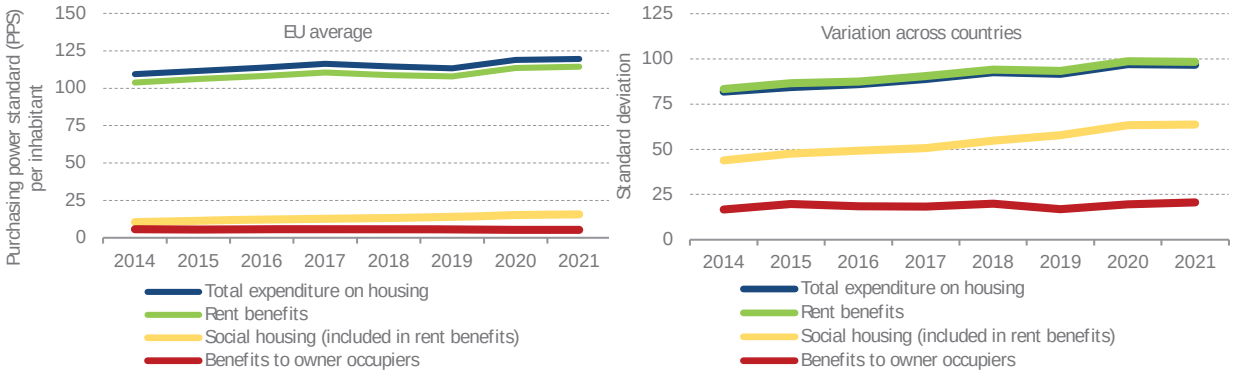
([100]) (Eurofound, 2023b); (Pestel-Institut, 2024).

policies such as investment in the construction and innovation of social housing form a key part of the broad range of housing policies that affect the availability and affordability of housing.

Chart 3.15

Public spending on housing increased but dispersion widened between 2014 and 2021

Weighted EU average government expenditure on housing and variation across countries (in standard deviation), 2014-2021



Note: Social housing is part of rent benefits and is included in the green line.

Source: Eurostat [spr_exp_fho].

Click here to download chart.

Between 2014 and 2021, government expenditure on housing benefits per inhabitant, aimed at improving access to housing, increased in the EU. Taking into account differences in the cost of living between countries, it went from 109 to 120 PPS per inhabitant ([101]) on average, ranging from less than 1 PPS per inhabitant in Bulgaria, Croatia and Portugal to over 300 PPS per inhabitant in Ireland and Finland in 2021. It was strongly driven by expenditure on rent benefits, mostly comprising housing allowances (86.2% of rent benefits in 2021), with the exception of Belgium, Estonia, Ireland, Lithuania, the Netherlands, Romania and Slovenia, where social housing expenditure constituted a major share of rent benefits. Countries with the lowest initial levels of public spending on housing caught up more strongly between 2014 and 2021, ([102]) but the overall dispersion across countries widened (Chart 3.15). ([103]) In light of recent trends, many Europeans responding to a recent survey believe that addressing the high cost of living (48%) and the lack of social housing and homelessness (23%) should be a main priority in their country. Around 6 in 10 respondents think that their governments should increase their spending on housing, with variation across countries ranging from below 30% in Finland and Denmark to over 80% in Cyprus, Ireland and Greece. ([104])

([101]) PPS is the artificial currency unit that eliminates price level differences between countries, i.e. one PPS can buy the same volume of goods and services in all countries. Government expenditure on housing in PPS is derived by dividing the government expenditure on housing of a country in national currency by the respective PPPs, which are obtained by comparing price levels for a basket of comparable goods and services representative of consumption patterns in the various countries.

([102]) Beta coefficient is negative (-0.03) and statistically significant at 5% significance level, primarily driven by the convergence in rent benefits (beta coefficient for benefits to owner occupiers is not statistically significant).

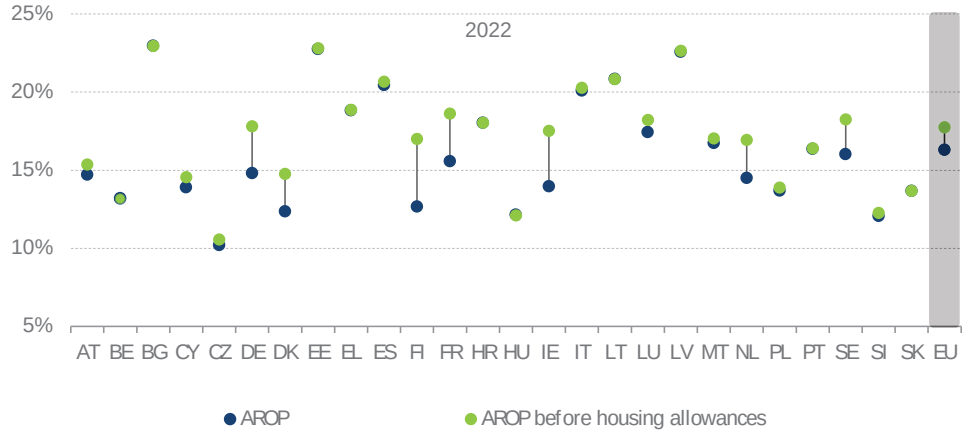
([103]) While countries with the lowest initial levels catch up relatively to those with the highest initial level of public spending on housing, changes in the public spending of other countries contributes to increased variance thus increasing overall dispersion.

([104]) 2024 Eurobarometer on Social Europe; 2022 Eurobarometer on Fairness, Inequality and Intergenerational Mobility.

Chart 3.16

Housing allowances reduce the AROP rate

Differences in AROP and AROP rates before housing allowances, 2022



Note: AROP rate before housing allowances is calculated by excluding housing allowances from equivalised household disposable income and by calculating the share of people with an equivalised adjusted disposable income below 60% of the national median. AROP before housing allowances rate is missing for Romania, which does not collect data on housing allowances.

Source: EU-SILC scientific use files, 2022.

Click here to download chart.

Social housing and housing allowances reduce the AROP rate in the short term, without accounting for the possible longer-term effects on housing prices and housing affordability. Comparing the adjusted AROP rate, which excludes social rent subsidies and/or housing allowances from equivalised household disposable income, ([105]) to the standard AROP rate provides a good measure of the impact of both policy instruments in reducing poverty. It does not however capture other relevant aspects of housing affordability such as supply and demand for affordable housing, underlying drivers or broader societal impacts. In 2022, housing allowances decreased the AROP rate by an estimated 1.4 pp (from 17.7% based on AROP rate before housing allowances to 16.3% of AROP rate) in the EU on average, with the biggest decreases in Finland (4.3 pp), Ireland (3.5 pp), France (3.1 pp) and Germany (3.0 pp) (Chart 3.16). ([106]) Similarly, in 2019, the provision of social housing proxied through social rent subsidies decreased the AROP rate in the EU by an estimated 0.4 pp on average (from 18.1% in AROP rate before housing allowances and social rent subsidies to 17.7% in AROP rate before housing allowances). ([107]) The highest decreases were observed in Ireland (3.7 pp) and Belgium (2.4 pp). The higher average impact of housing allowances could be due to relatively low public spending on social housing (Chart 3.15). While this analysis suggests that social housing and housing allowances reduce poverty, it does not account for the impact of other related policies or institutional setups and bottlenecks relevant for the functioning of rental and housing markets, thus likely reflecting the upper bound of the impact. For instance, the potential shift of (part of) housing allowances to landlords through higher rents might reduce the effectiveness of housing allowances in reducing poverty, i.e. in the absence of effective rent regulation policies. ([108]) Depending on the design, however, housing allowances might instead drive-up housing prices and reduce housing affordability over time, especially in markets with limited housing supply. ([109])

The estimated direct impact of housing allowances on poverty reduction is particularly strong for vulnerable households. For example, households where no adult (+3.2 pp) or only one adult (+1.8 pp) is employed are more likely to be at risk of poverty after housing allowances are excluded from

([105]) Share of people with an equivalised adjusted disposable income below 60% of the national median, and further referred to as AROP before housing allowances and social rent subsidies, and AROP before housing allowances, respectively.

([106]) Romania is excluded from both averages, as it does not collect data on housing allowances (variable HY070G in EU-SILC). The reported results assume that no housing allowances are shifted towards landlords through higher rents. The rather small impact of housing allowances in reducing the AROP rate in some countries is largely due to low spending on these policies. However, part of the differences in impact on poverty reduction between countries might also be driven by the design of housing allowances, with some countries targeting households at risk of poverty more effectively.

([107]) Social rent subsidies (as a proxy for social housing) are estimated using the imputed rents variable (HY030G) for social tenants (those who indicated paying below-the-market rent) from EU-SILC. Since 2021, this variable is no longer part of the annual EU-SILC but will be provided on a three-yearly basis as part of the module “labour and housing conditions” (starting in 2023). Some countries (Denmark, Germany, Malta, the Netherlands, Slovakia, Sweden) did not collect data on imputed rents for social tenants for most years considered and are excluded from the analysis on social housing, in addition to Romania (where housing allowances do not exist). While data for social rent subsidies (imputed rents) are available until 2020, data for 2019 were used to avoid estimating the impact of temporary measures adopted during the COVID-19 pandemic.

([108]) (Laferrère and Le Blanc, 2004); (Viren, 2013).

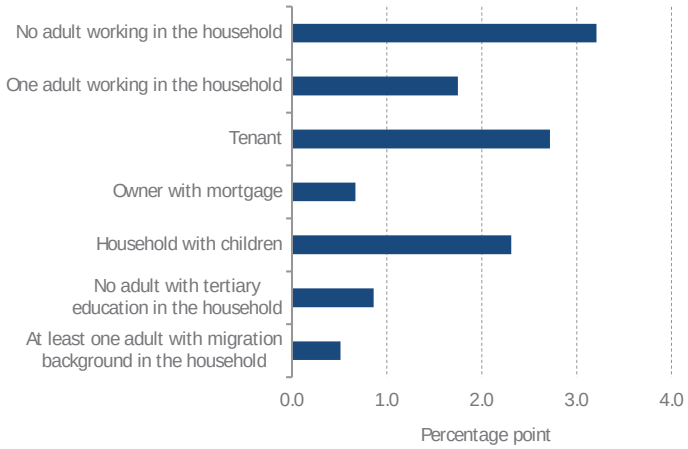
([109]) (International Monetary Fund, 2024); (Hyslop, 2019).

equivalised disposable income, compared to households where more than one adult is employed (Chart 3.17). Similarly, this probability is higher for tenants (+2.7 pp) and owners with a mortgage (+0.7 pp), compared to outright owners. Households with children (+2.3 pp), households with no adult with tertiary education (+0.9 pp), and households with at least one adult with a migration background ([110]) (+0.5 pp) are also more likely to be at risk of poverty after housing allowances are excluded from equivalised disposable income.

Chart 3.17

Housing allowances contribute substantially to reducing poverty among vulnerable households

Probability of a status change from not at-risk-of-poverty to at-risk-of-poverty after housing allowances are excluded from equivalised disposable income, 2014-2022



Note: Excludes Romania, as it does not collect data on housing allowances. All estimates significant at 1% significance level. Reference categories in brackets: no adult working in the household, one adult working in the household (more than one adult working in the household); tenant, owner with mortgage (outright owner); household with children (household with no children); no adult with tertiary education in the household (at least one adult with tertiary education in the household); at least one adult with migration background in the household (no adult with migration background in the household). Model controls for country and year fixed effects.

Source: EU-SILC 2014-2022.

Click here to download chart.

([110]) Defined as being born outside the country of residence and/or having a foreign citizenship.

Box 3.7: Promoting upward social convergence and poverty reduction through social protection

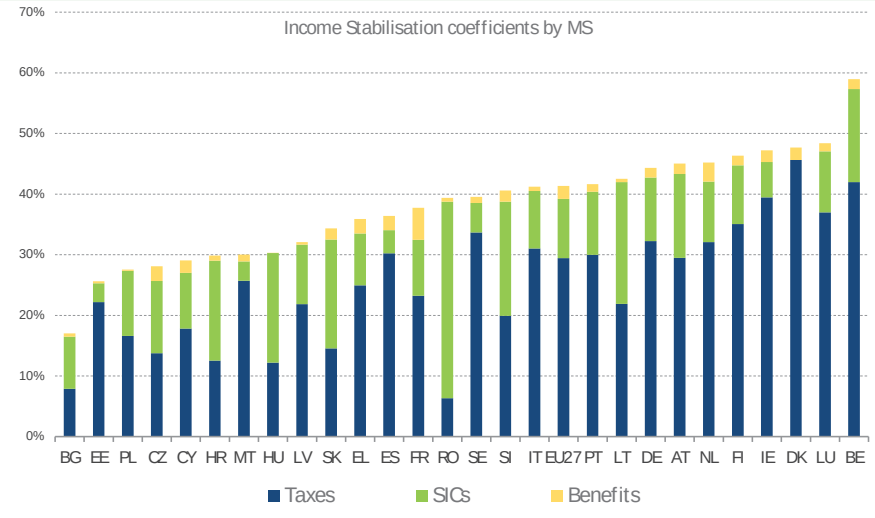
Well-designed, inclusive social protection systems and social investment policies complement and reinforce one another as necessary components of modern welfare states. Social protection systems provide a safety net that protects individuals from economic and social risks by helping them maintain at least a basic level of income and thus contributing to macroeconomic stabilisation. They can mitigate the impacts on poverty and economic growth by increasing income and consumption, particularly through countercyclical spending during economic downturns. Evidence also points to complementarities between social protection and social investment, with spending on ALMPs and ECEC tending to have more positive effects where total social protection expenditure is more generous. ([1])

Income stabilisers have the potential to contain poverty in times of economic downturn. The shock-absorption properties of effective tax-benefit systems can prevent diverging trends in inequality and social outcomes during recession and strengthen the resilience of a country. The analysis below ([2]) uses EUROMOD to quantify how the overall tax-benefit system mitigates the transmission of a market income shock to disposable household incomes. It simulates a 5% hypothetical reduction in gross market income ([3]) and estimates the share of income loss absorbed by a country's tax-benefit system. As no changes in labour market status or prices are considered, ([4]) income stabilisation is driven by increases in means-tested benefits and reductions in taxes ([5]) and lower social insurance contributions (SICs). Stabilisation properties are measured through an income stabilisation coefficient (ISC), which varies between 0% and 100%, with higher values pointing to stronger stabilisation (Box A.3, Annex).

Chart 1

Substantial variation in the extent and composition of income stabilisation after a 5% market income shock across Member States

Country-level ISC, by policy instrument (%), 2022-2023 average



Source: JRC calculations based on EUROMOD, version I6.0+.

Tax-benefit systems can stabilise incomes, particularly through direct taxes yet with substantial heterogeneity across Member States. On average, tax-benefit systems in the EU in 2022-2023 would have absorbed almost half of the simulated 5% market income shock, with the ISC averaging 41.4% across the Member States. ([6]) Direct taxes would have absorbed 29.4% of a market income shock in 2022-2023, followed by SICs (9.8%) and means-tested benefits (<0.5%). However, the variation between countries is substantial, ranging from 17% in Bulgaria to 58.9% in Belgium (Chart 1). Within the different tax-benefit components, direct taxes would have absorbed 29.4% of a market income shock in 2022-2023, followed by SICs (9.8%) and means-tested benefits (<0.5%). Also for the various components, considerable differences emerge between Member States. In five Member States, SICs (rather

([1]) (European Commission, 2016)

([2]) While social protection addresses both the risk of economic downturn and risks that occur in the context of sickness or retirement, this section will focus on the role of social protection in stabilising incomes.

([3]) Market income includes employment and self-employment incomes, investment and property incomes, pensions from individual private plans, and regular net inter-household transfers, all reported in gross terms.

([4]) Transitions into unemployment or changes in indexation of benefits following an increase in prices would require additional assumptions and estimations and are outside the scope of this analysis. See Box A.3 in the Annex.

([5]) Due to the progressive nature of personal income taxation.

([6]) EU-level ISC computed by aggregating changes in market income and disposable incomes across countries. The result is an EU-level weighted average, with the shares of country-specific market income shock out of total market income shock as the weighting factor. EU-level results in this analysis are thus more influenced by larger countries.

(Continued on the next page)

Box (continued)

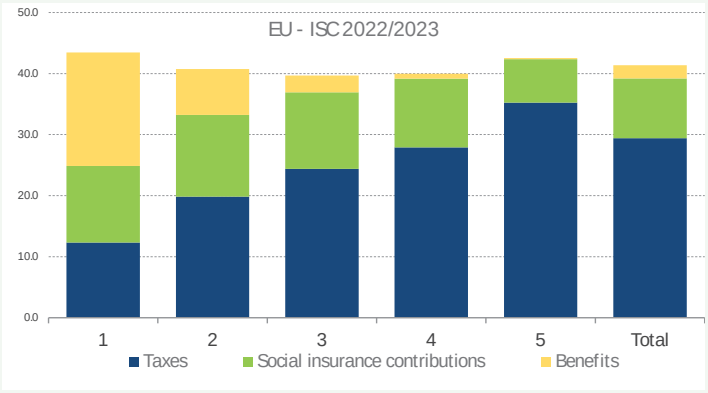
than direct taxes) represent the largest component of income stabilisation.([7]) The degree of income stabilisation provided by each component also varies by Member State, ranging from 6.3% in Romania to 45.6% in Denmark for direct taxes; from 0% in Denmark ([8]) to 32.4% in Romania for SICs; and from less than 0.5% in Hungary, Poland, Estonia and Latvia to 5.3% in France for means-tested benefits (Chart 1).

The degree and composition of income stabilisation after an income shock varies between income quintiles. On average, incomes at the bottom (43.5%) and top (42.6%) of the income distribution are more cushioned against a market income shock than those in the middle (39.7%) (Chart 2). While increased benefits lead to a larger shock-absorption among households in the bottom income quintile (providing a stabilisation of 18.6%), the reduction in taxes due to the income loss among households in the top income quintile leads to an almost equally high degree of income stabilisation as for the bottom quintile, despite almost no increase in benefits (0.2% stabilisation). ([9]) Similarly, personal income taxes absorb an increasingly higher share of the market income shock for the higher the income quintile, increasing from 12.3% for households in the first quintile to as much as 35.3% for households in the fifth quintile.

Chart 2

Relative significance of taxes and benefits in absorbing a 5% market income shock varies substantially across the income distribution

EU-level ISC, by income quintile and policy instrument (%) (2022/2023 average)



Source: JRC calculations based on EUROMOD, version I6.0+.

([7]) Bulgaria, Croatia, Hungary, Romania, Slovakia.

([8]) Result for Denmark follows from the classification of labour market contributions in EUROMOD as taxes rather than SIC and from the fact that unemployment benefit contributions and supplementary labour market contributions do not depend directly on earnings.

([9]) Chart A.3 in the Annex presents the relative significance of taxes and benefits in absorbing a 5% market income shock, by income quintile and Member State.

5. CONCLUSIONS

Well-designed social investment policies can enhance productivity and competitiveness and have positive impacts on economic growth and fiscal sustainability, as well as employment, poverty reduction and social inclusion. They contribute to more inclusive and environmentally sustainable economies and societies, underpinning upward social convergence, helping to advance the fair green and digital transitions, and adapting to demographic change in the EU. Simulations also highlight the potential for social investment to positively impact fiscal sustainability, with the resulting long-term GDP growth more than offsetting the initial cost of the measure analysed.

Measuring the exact returns on social investment policies is challenging. Returns might only materialise in the medium to long term, or are not always easily captured in monetary terms. In addition, social investments might reinforce one another, including over individuals' life courses, and might also depend on the effectiveness of other policies, such as social protection. Changing skills needs, including in the context of the green and digital transitions, might necessitate additional social investment to fully reap the benefits of previous investment. While many methods are available to estimate the returns on social investment, they are often complex, require good quality (longitudinal) data and cannot account for all relevant elements at once. The efficiency of spending on social investment is also crucial. In this respect, ensuring that social investment is of high quality, well-designed and evidence-informed is key.

Social investment at earlier stages of life, such as in education (including ECEC), is associated with higher economic and social returns over the course of people's lives. Investment in ECEC can improve the education and labour market opportunities for children and increase the labour market participation of parents. Evidence shows that increasing participation of young children in ECEC could result in sizeable improvements in mothers' labour market participation, with particularly beneficial impacts for mothers from low-income families. However, while ECEC participation in the EU is improving, several Member States still fall far behind the Barcelona participation target of 45% for children aged 0-2. Children who can benefit most from attending ECEC, such as those from disadvantaged backgrounds, tend to participate least. For school education, the learning outcomes of 15-year-olds worsened significantly after the COVID-19 pandemic, which likely intensified an already negative trend. This was accompanied by the decrease in efficiency of expenditure on education per student, underlining the relevance of other factors, such as quality of education, in determining the effectiveness of investment in school education.

Effective investment in skills is associated with positive effects on labour market and economic outcomes, contributing to upward convergence. ESF+ investments in skills in the 2021-2027 programming period are projected to increase employment and GDP both in the short term and well beyond the funding period. Similar effects are found for young unemployed people in countries with the highest youth unemployment rates. These interventions are also expected to lead to a catching-up of regions lagging behind, reducing disparities across regions and leading to long-term economic convergence.

Employment and GDP are supported by investments in ALMPs, such as wage subsidies and training programmes, promoting upward convergence. ESF+ investments in ALMPs in the 2021-2027 programming period are projected to increase employment and GDP in both the short and long term and to promote a catching-up of regions that are lagging behind, reducing disparities in the short term in particular. Impact evaluations of specific ALMPs in the Member States found that training programmes, job creation schemes and wage subsidies are effective at increasing employment, earnings, and social outcomes, particularly among long-term unemployed people.

Good quality and affordable housing can help to improve labour market outcomes, mitigate labour and skills shortages, and promote upward social convergence. Housing allowances and social housing are found to reduce poverty in the short term. However, factors such as insufficient stock of social housing, inefficiencies in the occupancy of social housing, or the ability of landlords to capitalise (part of) housing allowances through higher rents might limit the effectiveness of these housing policies to increase housing affordability for the most vulnerable households. This calls for a comprehensive approach when designing housing policies so as to maximise returns.

Social investment and related enabling policies play an important role in facilitating a fair green transition. To reach climate neutrality by 2050, investment is needed in reskilling and upskilling of workers. The required investment will be higher for countries that need to catch up in their deployment of renewable energy sources and green technologies. Investments in social infrastructure and levers such as affordable and sustainable mobility, food, energy and housing can help to increase the accessibility and affordability of energy-efficient and sustainable lifestyle solutions and reduce inequalities in consumption footprints.

By stabilising incomes, well-designed social protection systems complement social investment policies and can prevent diverging trends in social outcomes during recessions. These two components of modern welfare states can reinforce one another, with social protection supporting effective social investment. Simulations show that tax-benefit systems would absorb almost half of a negative market income shock, albeit with substantial variation across Member States. The degree of income stabilisation provided by tax-benefit systems following a market income shock is stronger for households with lower and higher incomes compared to those in the middle of the income distribution.

Social investment and social protection are fully embedded in the European Pillar of Social Rights and are essential to its implementation. Several policies and reforms adopted under the Pillar are supported by EU funds such as the ESF+, the ERDF, the RRF as well as the TSI. The reformed Economic Governance Framework facilitates and encourages Member States to implement reforms and investments that improve resilience, economic growth, and fiscal sustainability, and address the common objectives of the EU, including upward social convergence.