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2025 Country Report - Sweden

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Recommendation for a COUNCIL RECOMMENDATION

on the economic, social, employment, structural and budgetary policies of Sweden

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European Commission

Sweden

2025 Country Report

ECONOMIC DEVELOPMENTS AND KEY POLICY CHALLENGES

Recent economic developments

Sweden's economy rebounded in 2024 after a decline in 2023. Real GDP (GDP adjusted for inflation) increased by 1% and economic growth is expected to continue at a moderate pace in 2025, supported by lower interest rates and fading price pressures. However, the recovery is expected to be delayed by global trade disruptions. Economic growth is set to gradually pick up in 2026, primarily supported by stronger private consumption growth as households are expected to reduce savings in view of receding uncertainty, disinflation and improved conditions in the labour market. According to the Commission's Spring 2025 Economic Forecast, real GDP growth is projected to be 1.1% in 2025 and 1.9% in 2026. Headline harmonised index of consumer prices (HICP) inflation fell to 2% in 2024, down from 5.9% in 2023. Consumer price inflation is set to remain above 2% on average in 2025 before moderating in 2026.

The jobs market has been weak yet resilient, but structural challenges remain. Sweden has one of the highest employment rates in the EU, yet unemployment remains persistently high. Amid sluggish economic activity, the unemployment rate rose in 2024 to 8.4% from 7.7% in 2023 (see Social Scoreboard in Annex 13). The labour market is expected to remain weak in 2025, with the unemployment rate rising to 8.7% before falling back somewhat in 2026, following the expected recovery with a lag. Social partners agreed nominal wage rises of around 3½% in both 2025 and 2026.

The Swedish economy is highly competitive and innovative thanks to good infrastructure, business efficiency and high levels of R&D. Companies have good access to diverse and innovative financing sources, not only through bank funding, but also equity and bond market funding. Sweden's capital markets play a vital role in raising venture and growth capital and funding to businesses. Small and medium-sized enterprises benefit from low regulatory barriers, affordable access to finance, and good digital and transport infrastructure. Sweden is home to a thriving high-tech innovation ecosystem, underpinned by high business R&D expenditure.

Geopolitical risks are causing uncertainty. The Swedish economy is highly integrated into international value chains and is therefore vulnerable to trade disruptions and financial market volatility. Heightened uncertainty among consumers and firms risks weighing on consumer spending and investment, in turn holding back the expected gradual improvement in the jobs market.

Despite a fiscal deficit, Sweden has ample fiscal space. The general government balance is projected to remain negative in 2025 at 1.5%. Public finances nonetheless provide fiscal space for considerable public investment needs, in particular on military and civil defence. Tax revenues are resilient overall despite reductions in marginal income taxes and some energy taxes. The general government gross debt will remain at a low level at just below 34%, even in a context of potential borrowing-financed investments in defence.

Net expenditure over the course of 2024 and 2025 is growing but keeping below the maximum recommended by Council. In 2024, net expenditure ([1]) in Sweden grew by

([1]) Net expenditure is defined in Article 2(2) of Regulation (EU) 2024/1263 as government expenditure net of (i)

Box 1: **UN Sustainable Development Goals (SDGs)**

Sweden performs well on SDGs related to productivity (SDGs 4, 8, 9), but is moving away on achieving no poverty (SDG 1).

Sweden performs well on most of the SDGs related to environmental sustainability (SDGs 2, 6, 7, 9, 11, 13, 15), but needs to catch up with the EU average on others (SDGs 12 and 14).

6.1% (see Annex 1). This increase was mainly driven by public investment in defence and infrastructure and a capital injection to the central bank. Net expenditure has been adjusted for discretionary revenue measures, such as tax adjustments, that had an annual impact on revenue. In 2025, government net expenditure is forecast by the Commission to grow by 1.7%, which is below the maximum growth rate recommended by the Council ([2]). The cumulative growth rate of net expenditure in 2024 and 2025 taken together is projected at 7.9%, which is below the maximum cumulative growth rate of 10.7% recommended by the Council.

Macroeconomic challenges

Sweden's macroeconomic vulnerabilities of high private debt and highly valued real estate are closely connected. The Commission undertook an in-depth review of the Swedish economy as part of the Macroeconomic Imbalance Procedure earlier in 2025 ([3]). This review found that Sweden continues to face vulnerabilities related to the real estate market and high levels of private debt. Rising house prices have been accompanied by increased household indebtedness, which is among the highest in Europe. Over recent years, concerns about household debt and the financial stability of commercial real estate firms have grown as interest rates rose. This in turn contributed to a significant decline in housing construction and to higher debt service levels, which held back consumer spending and led to ripple effects in the broader economy. High household debt combined with overvalued house prices increase vulnerability to a market correction. Policy progress to tackle these issues has been limited.

High house prices and a dysfunctional housing market affect labour mobility and productivity. Sweden continues to be affected by staff shortages and skills mismatches, including in the north of the country, a key location for green technology. Labour productivity levels are comparatively high in Sweden, but productivity growth has slowed since 2008. Among the possible root causes of this slowdown has been limited labour mobility hindered by a shortage of affordable housing ([4]). The rental market is regulated by a 'utility value system', which means that the collectively negotiated rents diverge from notional market levels. While this keeps rent levels more affordable in sought-after locations, it also leads to limited supply and long waiting times. In addition, regulatory barriers and tax incentives favour house buyers, which has driven up property prices at a time of already high prices. This has led to a misallocation of resources away from

interest expenditure, (ii) discretionary revenue measures, (iii) expenditure on programmes of the Union fully matched by revenue from Union funds, (iv) national expenditure on co-financing of programmes funded by the Union, (v) cyclical elements of unemployment benefit expenditure, and (vi) one-off and other temporary measures.

([2]) Council Recommendation of 21 January 2025 endorsing the national medium-term fiscal-structural plan of Sweden (OJ C, C/2025/644, 10.2.2025, ELI: http://data.europa.eu/eli/C/2025/644/oj).

([3]) European Commission (2025), *In-depth Review 2025 Sweden*, May 2025.

([4]) OECD (2023), *Economic Policy Reforms 2023 Going for Growth*, October 2023.

productive investment, which affects competitiveness ([5]).

Appropriate macroprudential measures are currently in place to dampen household credit growth. In February 2024, the European Systemic Risk Board concluded that Sweden's residential real estate market faces significant risks, with the macroprudential policy stance considered only partially sufficient to address the situation effectively ([6]). A government committee tasked with reviewing the impact of borrower-based macroprudential measures in Sweden made recommendations to ease the existing rules in November 2024. However, any relaxation of macroprudential policy before implementing structural reforms addressing current market dysfunctions could result in higher house prices and an increase in household debt, accentuating the underlying sources of vulnerability.

High electricity costs undermine the competitiveness of Swedish businesses. Regional disparities in electricity prices hinder competitiveness (see Section 4 and Annex 8). Power and grid capacity constraints in the south of Sweden lead to increased costs for local households and businesses. The transmission capacity between the north and south is insufficient. This highlights the case for investment in extending grid capacity and incentivising the uptake of flexibility services and demand response.

Key policy challenges

Addressing labour market challenges, in particular skills shortages, would support competitiveness. Sweden suffers from labour shortages in certain sectors, which prevents it from fully exploiting its human capital, increasing innovation and ultimately further improving its competitiveness. Furthermore, there are still challenges with integrating certain groups into the jobs market, in particular people with disadvantaged socio-economic and migrant backgrounds. The uptake of incentive schemes such as the recently launched 'Introduction Jobs' scheme (etableringsjobb) has been very low so far.

Bridging educational gaps is key to improving competitiveness. Sweden's education system has high dropout rates with an exceptionally large proportion of pupils failing to qualify for upper secondary education, in particular since the introduction of stricter qualification conditions in 2011. This significantly diminishes the employment opportunities for those young people. Similarly, qualification gaps limit progress to post-secondary education. Targeted reforms in the education system are needed to raise achievement levels and skills and reduce dropout rates.

The educational disparity between pupils is closely tied to their socio-economic backgrounds. There is a clear lack of basic and digital skills among certain cohorts of students, which is mainly due to their limited inclusion in education. Fully integrating non-Swedish-born populations, ensuring the development of the skills needed and thereby increasing the number of qualified people is key for Sweden's long-term competitiveness.

([5]) European Commission (2025), *In-depth Review 2025 Sweden*, May 2025.

([6]) European Systemic Risk Board (2024), *Follow-up report on vulnerabilities in the residential real estate sectors of the EEA countries*, February 2024.

Box 2:

Barriers to private and public investment

Public investment in Sweden has been increasing and is the highest in the EU, while private investment is above the EU average. There are opportunities for further improvement, and addressing the following barriers could improve the effectiveness and efficiency of investment decisions. Some of the main barriers to private and public investment include:

- **Labour and skills shortages.** Around 78% of Swedish companies cite the shortfall in labour or skills as a significant obstacle to investment.

- **Imbalances in the housing market.** To encourage the allocation of more savings towards productive investment, reform of the housing market along with related taxation and financing could unblock additional funds.

- **Permitting issues for large-scale green energy projects.** Prolonged and uncertain permitting processes hamper economic growth and deter investment, particularly for onshore and offshore wind energy projects.

- **Inefficient subsidies.** Phasing out fiscal subsidies that support debt bias could free additional funds for investment.

The implementation of Sweden's RRP is delayed. At present, Sweden's first payment request covering 53% of the milestones and targets in its RRP is under assessment. Efforts are needed to ensure completion of all RRP measures by 31 August 2026.

It remains important to accelerate the implementation of cohesion policy programmes. The mid-term review offers opportunities to speed up progress and better address EU strategic priorities related to competitiveness, defence, housing, water resilience and the energy transition.

The availability of labour differs significantly across regions. Shortages of labour exist in both the public sector (teachers, nurses) and private sector, particularly in the north of Sweden. To help reduce inequalities and strengthen competitiveness, it is crucial to implement active labour market policies, facilitate targeted skills training and strengthen work incentives across the country.

Sweden has adjusted the level of its ambitious green commitments. The transport sector is responsible for a large share of greenhouse gas emissions in Sweden and will be key in enabling Sweden to meet its climate targets. The sector, in particular road transport, accounts for three quarters of energy demand for oil and petroleum products. A significant reduction in the ambition of fuel blending obligations, which aim to reduce greenhouse gas emissions from diesel and petrol by blending in biofuel, coupled with lower fuel taxes, have increased greenhouse gas emissions. Sweden's carbon removals have declined in recent years and fall short of what would be needed to meet the 2030 target for land use, land use change and forestry. At the same time, the state of ecosystems, and in particular protected forest habitats, continues to degrade. Sweden is set to miss its 2030 emission targets with its current policies.

Capacity constraints and regulatory barriers prevent a faster green transition. Sweden has a large untapped potential of renewable energy (onshore and offshore wind). However, lengthy procedures and permitting barriers, particularly from municipalities and defence authorities – they can revoke permits even after permission has been granted – creates investment uncertainty and hinders the full deployment of renewable energy.

INNOVATION, BUSINESS ENVIRONMENT AND PRODUCTIVITY

Competitiveness is boosted by high levels of innovation

Sweden is leading the EU-27 in the areas of innovation, R&D and intangible investments. R&D expenditure as a percentage of GDP is above the EU average, as are R&D staffing levels in businesses and in higher education. Since 2019 Sweden's patent applications per million inhabitants have been two to three times higher than the EU-27 average, highlighting its strong ability to put innovation to practical use.

High business R&D expenditure means a thriving high-tech innovation ecosystem. Sweden's business R&D intensity (2.65% of GDP in 2023) is the highest in the EU and close to that of leading global competitors such as the US (2.83% of GDP in 2022). Public research expenditure supports private-sector research efforts, for example through Vinnova, Sweden's innovation agency. The government is considering new initiatives to stimulate business research and development. The proposed Budget Bill for 2025 intends to continue improving the tax conditions that support companies' opportunities to conduct research and development, including through exploring a new research and development tax incentive.

Despite a robust science base, Sweden´s scientific excellence has declined slightly over time. High investment in R&D is not fully reflected in scientific outcomes and results, and a shortage of highly-skilled staff in science, technology and engineering could hold back future investment. Weak strategic alignment across the Swedish research system has been an issue ([7]), but the new Research and Innovation Bill (2025-2028) provides for a more coherent system from the research stage through to commercialisation. This is expected to boost both R&D expenditure and scientific excellence (see Annex 3).

Highly-skilled staff in science, technology and engineering is in limited supply. When Sweden's most R&D-intensive companies decide where to make R&D investments, the availability of skilled staff is a key consideration. Despite recent improvements, 45% of companies find it difficult to recruit R&D staff. The number of new doctoral graduates in science, technology, engineering and mathematics (STEM) has almost halved since 2017 (see Annex 3). To boost competitiveness and innovation, it is vital to encourage more young people to enrol in STEM courses and offer better career prospects to highly-qualified job-seekers from abroad. Having recognised this, Sweden has presented a strategy to encourage more people to study STEM subjects ([8]).

Private investment is heavily focused on machinery and equipment, with moderate emphasis on digitalisation. In line with broader EU trends, around half of Sweden's total investments go to machinery and equipment. Swedish businesses invest slightly more than their EU counterparts in digital technologies such as software, data, IT networks and R&D, but relatively less in staff training.

([7]) OECD (2023), *Public research funding in Sweden* https://www.oecd.org/en/publications/public-research-funding-in-sweden_9eb9a85b-en.html.

([8]) See *A STEM strategy for Sweden – from preschool to postgraduate study* https://www.government.se/press-releases/2025/02/a-stem-strategy-for-sweden--from-preschool-to-postgraduate-study/ (in Swedish).

Efficient businesses make for a competitive and innovative economy

Swedish firms benefit from low regulatory barriers, affordable access to finance and good digital and transport infrastructure, but challenges remain. Sweden is a front-runner in terms of business dynamism, with a percentage of high-growth companies twice the EU average (at 18% of total active enterprises in 2022). Nevertheless, according to the 2024 EIB Investment Survey, Swedish firms struggle with issues such as skilled staff shortages, uncertainty about the future and high energy costs. In addition, SMEs lag behind on adopting and using digital tools and in terms of innovation expenditure.

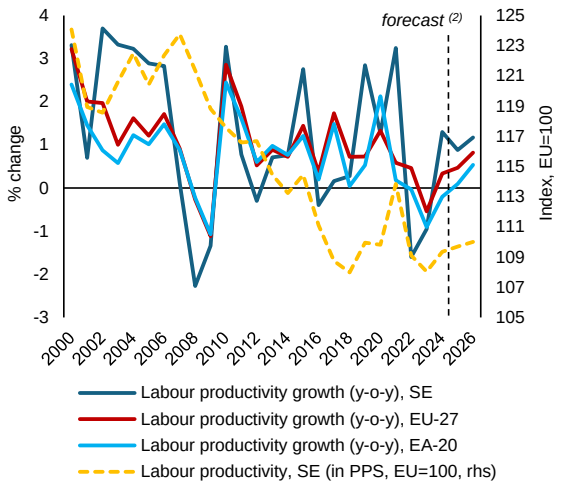
Two new policy initiatives aim to ease the regulatory burden on businesses and boost competitiveness. The Swedish government has set up a Simplification Council tasked with drawing up proposals on how to ease the regulatory burden on businesses and reduce the associated costs. Also, a newly established Implementation Council will assist the government in its effort to make Swedish businesses more competitive by avoiding implementation above the minimum level, cutting red tape and reducing administrative and other costs of implementing EU regulations.

Businesses have good access to capital markets. Sweden's capital markets are among the most liquid and mature in the EU, offering professional and retail investors a wide array of investment options. Sweden has thus positioned itself as a major financing hub in Europe, providing entrepreneurs with capital to develop and expand their businesses. Swedish households held financial assets amounting to around 320% of GDP in 2023, well above the EU average of some 210%. This is due not only to a mature capital market and a developed banking and pension system, but also to fiscal incentives that have helped create a distinct investment culture characterised by high financial literacy and a well-developed private equity market. Sweden is also a leading FinTech hub that attracts significant venture capital investments and numerous innovative startups.

Productivity growth has slowed

Labour productivity is above the EU average but growth rates are becoming more volatile. Swedish labour productivity, measured as GDP per hour worked in purchasing power standard (PPS) terms, is projected to reach 108% of the EU-27 average in 2024, down from a peak of 114% in 2021. While Sweden outpaced the EU in productivity growth during the early 2000s, the financial crisis brought greater volatility, with sharp spikes in labour productivity growth alternating with significant drops. Despite this volatility, Swedish productivity is expected to grow by more than the EU average in 2025 and 2026, after a period of balance sheet adjustments slowing the economy in comparison to peers (Graph 1).

Graph 2.1: **Labour productivity**



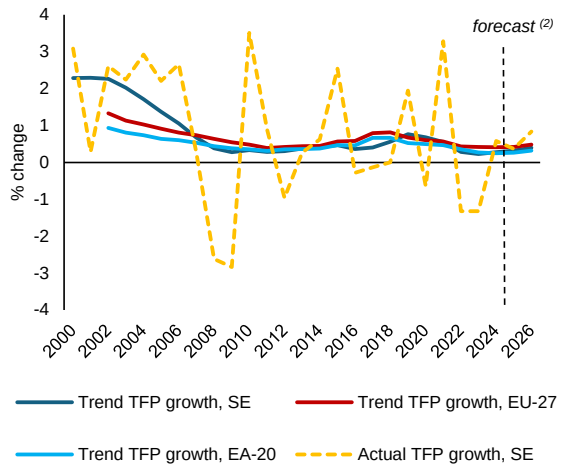
(1) Productivity: GDP per hour worked in PPS (index, EU-27=100); growth rates: annual growth in real GDP per hour worked.
(2) Commission Spring 2025 Forecast
Source: European Commission 2025

Sweden's slowing productivity is mainly due to slower total factor productivity growth. From 2000 to 2024, total factor productivity growth fell by more than 2 percentage points (Graph 2). Capital deepening appears to follow cyclical patterns

(2000-2008, 2009-2016, 2017-2021), likely linked to business cycles. As in other advanced economies, total factor productivity played a major role in the declining labour productivity growth of the past decades. Against this backdrop, Sweden recently set up a Productivity Commission tasked with analysing the factors affecting productivity growth in various sectors, which is due to report its findings in October 2025.

Sweden has a mixed record on skills. Levels of tertiary education have been consistently above the EU-27 average since 2018. As regards basic education, measured by proficiency in reading, mathematics and science, quality has declined according to the most recent PISA survey, but Sweden is still above the EU-27 average. Underachievement in basic skills persists especially among students of a migrant and/or disadvantaged socioeconomic background (see Chapter 4).

Graph 2.2: **Total factor productivity**



(1) Actual TFP growth (Ameco ZVGDF) is based on a Cobb-Douglas production function with labour volume in actual hours worked and the net capital stock with constant factor income shares. Trend TFP (Ameco CVGDPF) is the TFP contribution to potential growth according to the EU Commonly Agreed Methodology.
(2) Commission Spring 2025 Forecast
Source: European Commission 2025

DECARBONISATION, ENERGY AFFORDABILITY AND SUSTAINABILITY

Sweden is at risk of missing its climate targets, also due to policy backtracking

Sweden is not on track to meet its 2030 emission reduction target under the Effort Sharing Regulation (ESR). In 2024 the country's greenhouse gas emissions increased as a result of policy backtracking chiefly in the area of transport. Current policies are projected to reduce greenhouse gas emissions from effort sharing sectors by 43.8% by 2030, falling short of the 50% reduction target (see Annex 7). This not only jeopardises Sweden's climate goals but also weakens the country's competitive advantage. By failing to fully exploit its abundant renewable-energy potential, Sweden risks progressing more slowly on decarbonisation and missing out on the opportunity to boost its competitiveness by reducing energy costs. Swift adoption of additional climate mitigation measures is essential for Sweden to meet its obligations under the ESR and strengthen its competitiveness in the long term.

Emissions from transport increased after a policy reversal. A key part of Sweden's progress towards meeting its climate targets under the ESR came from the transport sector, responsible for three quarters of energy demand for oil and petroleum products. Sweden partially reversed its green policies by significantly reducing requirements to blend fuel with biofuel to reduce emissions from diesel and petrol (known as the 'reduction obligation'). As of January 2024, the minimum blending requirement was lowered to 6% (from 7.8% on petrol and 30.5% on diesel), before rising slightly to 10% from 1 July 2025. Furthermore, in 2024 electric vehicle sales as a percentage of total car sales stalled. This was due partly to significant reductions in taxes on liquid fuels (leading to some of the lowest diesel and petrol prices in the EU), and partly to the phasing out, by the end of 2022, of a cash incentive paid by the State to encourage people to buy low-emission and electric cars. The limited rise in the reduction obligation level, the only measure adopted so far in 2025, will only marginally reduce the shortfall in meeting the ESR target.

Recent changes to environmental taxes reduce incentives for the green transition. In addition to reducing taxes and excises on fuel, Sweden will abolish the aviation tax at Swedish airports from 1 July 2025. With pollution and resource taxes accounting for only 3.2% of environmental taxes, Sweden could strengthen the use of the 'polluter pays' principle (see Annex 2).

Sweden's carbon removals fall short of meeting the 2030 target for land use, land use change and forestry. Carbon removals have declined in recent years, almost halving since the early 2010s ([9]). At the same time, the status of ecosystems protected under EU nature protection directives, in particular protected forest habitats, continues to deteriorate (see Annex 9).

Improving the energy system is key to the green transition

Limited power and grid capacity result in regional disparities in electricity supply

([9]) Climate Policy Council (*Klimatpolitiska Rådet*), *Annual report 2025*, report No 8, ISBN: 978-91-540-6235-5, ref. no: 2024-00041/K.

and demand, ultimately holding back competitiveness. Despite an abundant supply of electricity in the north of Sweden, limited transmission capacity to the south prevents tackling supply shortages there. This harms competitiveness, particularly in the south, where prices are higher on average, with prices in 2024 1.5-2 times higher than in the north ([10]). These shortcomings highlight the need to provide incentives for increasing generation capacity to final demand levels, improve grid capacity and promote greater use of flexibility mechanisms for electricity generation and consumption. Significant investments are needed to improve and modernise grids. Further cross-border integration could help balance supply-demand mismatches, including intermittent peaks in renewable-energy generation. This would further boost the resilience of Sweden's electricity market, while also strengthening the functioning of the EU electricity market (see Annex 8).

Unpredictable permitting procedures hold back the development of grid infrastructure and renewable energy sources. Drawn-out procedures and long-standing permitting barriers, mainly due to the extensive veto rights of municipalities and defence authorities, create investment uncertainty and stand in the way of fully exploiting renewables potential. Adjusting the regulatory framework to address permitting bottlenecks could improve planning certainty. Possible measures include revising spatial planning, and swiftly implementing relevant EU legislation to simplify and speed up permitting, while keeping a technology-neutral approach. The REPowerEU chapter of the Swedish recovery and resilience plan includes a reform aimed at speeding up the permitting process for upgrades to the electricity grid.

Sweden plays a major role in the EU's supply of critical raw materials. Several critical raw materials are vital to the development of technologies in strategic areas of economic activity such as renewable energy, telecommunications and digital services, aerospace and defence. To ensure access to deposits, priority must be given to speeding up permitting for extraction and ensuring finance for capital-intensive projects (see Annex 7).

([10]) Swedish Energy Agency (*Energimyndigheten)*, *Nuläget på elmarknaden*, February 2025, published 6 March 2025, Table 2. .https://trk.idrelay.com/res/mail/2930/56481/413fee67-78e1-423e-9c21-2e932ef1e3f5.pdf (in Swedish).

SKILLS, QUALITY JOBS AND SOCIAL FAIRNESS

Improving education and skills is key to reducing unemployment

Sweden's employment rate is above the EU average, but so is the unemployment rate, which remains a concern. Sweden has had persistent high unemployment for many years. In 2024, due to a weak economy, it increased across all groups: native-born and foreign-born, young people and older people, women and men. In the Commission's Spring 2025 Economic Forecast unemployment is projected to remain high in 2025 (8.7%) and to start improving only in 2026 (8.4%),

Finding work is particularly difficult for people from vulnerable groups. The Swedish Public Employment Service has identified certain groups with an above-average risk of remaining unemployed for longer periods, including people who have no upper secondary education, are born outside Europe, are above 55 years of age or have a disability resulting in reduced work capacity ([11]). The gap between those born outside the EU and native-born Swedes remains is particularly high. In 2024, Sweden had the highest unemployment rate in the EU for people born outside the EU (19.3% versus the EU average of 10.8%), while for the native-born the unemployment rate was 5.7% (see Annex 10).

Social conditions are to a large extent impacted by employment status and educational attainment levels. Poverty and social exclusion disproportionately affect people from vulnerable groups (see Annex 11). Educational attainment plays a major role in this as people with low levels of education ([12]) are at higher risk of poverty or social exclusion than those with a higher level of education ([13]) (30% compared to 11.5%). Similarly, unemployed people are at greater risk than people in employment (63.6% compared to 8.9%).

Completion of upper secondary education is essential for getting a job. Among people from the above groups registered as unemployed, almost half lack upper secondary education. Most were born outside Europe and many lack the basic prerequisites for finding a job or studying, including language skills. Improving pathways to formal adult vocational education could be a way to help this group enter the labour market.

There is room for improving training paths and coordination of support to the unemployed. Unemployed people looking to acquire new skills can receive support from various actors. This includes Swedish language courses and vocational education and training courses offered via the municipalities and job seeking support from the Public Employment Service. However, there is currently not sufficient coordination between these activities. A new draft bill ([14]) due to enter into force on 1 March 2026 aims to improve the exchange of information about job-seekers in need of training between the Public Employment Service and municipalities providing adult education services. Better

([11]) Swedish Public Employment Service (Arbetsförmedlingen), Autumn 2024 Labour Market Forecast.

([12]) ISCED levels 0-2.

([13]) ISCED levels 5-8.

([14]) The draft bill (in Swedish) requires municipalities to give the Public Employment Service the necessary information about job-seekers in relation to municipal adult education for labour-market policy purposes. It authorises the Public Employment Service to process personal data in the context of adult education services provided by municipalities.

coordination could help the unemployed enter the labour market, in particular people from vulnerable groups such as those born outside the EU. Furthermore, single contact points could be set up to guide job-seekers and oversee the process. A higher employment rate among vulnerable groups would help Sweden reach not only its 2030 employment target but also its 2030 poverty reduction target.

There are discrepancies between regions in terms of labour demand and supply. Unemployment is much higher in the south than in the north of Sweden (9.4% compared to 5.7%) ([15]). There is high demand in the north not only for skilled engineers and green transition specialists, but also for workers in healthcare, education, early childhood education and care and other support services. Although, there are currently few positive incentives for people to relocate to regions with better job opportunities, the Public Employment Service has been tasked with increasing occupational and geographical mobility among unemployed persons. This includes monitoring more closely the requirements to extend their job search and if necessary, change profession or move to a location where there are job vacancies. In addition, as from 1 January 2025, the Government has increased the level of reimbursement for unemployed persons' trips and accommodation in connection to job interviews or labour market training. To reduce differences in employment between regions, Sweden could consider providing financial incentives for people to move to regions where more jobs are available. This could include supporting lower-income jobseekers financially so they can afford a relocation and helping them search for housing or a place in kinder garden or school for their children.

Teacher shortages are aggravating the declining education outcomes. In the 2022 PISA results, Swedish students perform better on average than their European peers, however, the general drop in their basic skills since 2018 is among the sharpest in the EU. Performance also differs substantially between the stronger and the weaker pupils. To improve basic skills, Sweden has stepped back from digitalisation and is increasing the availability of analogue learning materials in teaching and books in libraries, which must be staffed. However, the quality of education is also affected by a shortage of qualified teachers, in particular in schools with many pupils of a migrant and/or disadvantaged background. There is therefore a need to make the teaching profession more attractive by improving teachers' status, salaries and career prospects (see Annex 12).

Educational reforms should help improve educational outcomes

Students' background strongly influences their performance and education prospects. In 2022, 15% of all pupils finishing lower secondary school had grades that were too low or incomplete, excluding them from qualifying for upper secondary school. Underachievement in basic skills is especially high for students of a migrant or disadvantaged socioeconomic background. For the latter group underachievement has increased significantly since 2018, e.g. by 11.7 percentage points in mathematics (see Annex 12). The performance gap between native-born and foreign-born students is one of the largest in the EU. Students of a disadvantaged socioeconomic background, which often overlaps with a migrant background, are more likely to be concentrated in schools in specific areas where there often is a shortage of qualified teachers. More systemic measures aimed at addressing shortages of qualified teachers and improving basic skills, combined with a better distribution and integration of students with a disadvantaged or migrant background, assisted by reinforced tutoring, could help improve results and prospects.

Flexible and more accessible learning pathways to continued education could improve outcomes. For many pupils, the current grading system effectively constitutes a barrier to moving on to upper secondary,

([15]) NUTS2 regions Southern Sweden (*Sydsverige*) and Upper Norrland (*Övre Norrland*).

higher or vocational education. Low or insufficient grades, especially in key subjects, in compulsory and upper secondary school too often represent an effective blockage for continued education, including vocational training and adult education. This leads to low attainment and a high share of those leaving schools with insufficient grades, limits future career prospects of the pupils affected, and disproportionally affects those from disadvantaged backgrounds. It also limits the supply of suitably skilled labour to support employment and productivity growth, holding back the growth potential of the Swedish economy. To ensure flexible learning pathways, grading, selection and admission requirements should be reformed, including for access to upper secondary and higher education. This would improve both educational opportunities and the supply of suitably skilled labour, boosting employment and productivity, necessary to enhance the growth potential of the Swedish economy.

KEY FINDINGS

To boost competitiveness, sustainability and social fairness, Sweden would benefit from:

- **implementing the RRP**, including the REPowerEU chapter; swiftly implementing **cohesion policy**, taking advantage of the opportunities under the mid-term review and making optimal use of EU instruments, including **InvestEU** and **STEP**, to improve competitiveness;

- **reducing risks from high household debt and maintaining macroprudential measures,** including by amending fiscal incentives (tax deductions on interest payments and low annual property taxes) and reforming the rental market;

- **stimulating homebuilding investment in the areas needing it most,** taking into account demographic growth and focussing on urban areas where shortages exist;

- **making it easier to commercialise results of research, development and innovation** to further strengthen the system to make Sweden's high level of research and innovation expenditure more impactful and boost competitiveness;

- **ensuring net greenhouse gas emission targets are met, in particular in transport, land use and forestry**;

- **fostering the green economy** to support Sweden's competitive advantage and sustainable growth, in particular in energy-intensive industries, and to speed up permitting procedures for renewable energy development;

- **investing more in grid capacity** to reduce high energy costs especially in the south, and provide for more cross-border connections. There is also a need to cut red tape and incentivise the use of flexibility mechanisms in energy generation and consumption;

- **reversing the declining trend in education outcomes** by reducing the number of pupils unable to progress to upper secondary and continued education, better integrating those with a disadvantaged or migrant background and addressing the shortage of qualified teachers;

- **taking further steps to help disadvantaged groups enter the labour market,** including by enhancing coordination between the public employment service and the municipalities.

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ANNEX 1: FISCAL SURVEILLANCE AND DEBT SUSTAINABILITY

This Annex contains a series of tables relevant for the assessment of the fiscal situation in Sweden, including how Sweden is responding to Council recommendations issued under the reformed Economic Governance Framework.

The reformed framework, which entered into force on 30 April 2024([16]), aims to strengthen debt sustainability and promote sustainable and inclusive growth through growth-enhancing reforms and priority investments. The medium-term fiscal-structural plans (hereinafter, MTPs or plans) constitute the cornerstone of the framework, setting the budgetary commitment of Member States over the medium term. The latter is defined in terms of net expenditure growth, which is the single operational indicator for fiscal surveillance.

Sweden submitted its plan on 11 October 2024. The plan covers the period until 2028, presenting a fiscal adjustment over four years. On 21 January 2025, the Council adopted the Recommendation endorsing Sweden's plan([17]).

The assessment of the implementation of the Council Recommendation endorsing Sweden's plan is carried out on the basis of outturn data from Eurostat and the Commission Spring 2025 Forecast and taking into account the Annual Progress Report (APR), that Sweden submitted on 30 April 2024. Furthermore, in the context of the Commission Communication of 19 March 2025([18]), on accommodating defence expenditure within the Stability and Growth Pact, the annex reports the projected increase in defence expenditure based on the Commission Spring 2025 Forecast.

The Annex is organised as follows. First, developments in **government deficit and debt** are presented based on the figures reported in Table A1.1. Then, the assessment of the **implementation of the Council Recommendation endorsing the plan** follows, based on the relevant figures presented in Tables A1.2 to A1.8, including data on defence expenditure.

The Annex also provides information on the **cost of ageing** and the **national fiscal framework**. Fiscal sustainability risks are discussed in the Debt Sustainability Monitor 2024([19]).

Developments in government deficit and debt

Sweden's general government deficit amounted to 1.5% of GDP in 2024. Based on the Commission Spring 2025 Forecast, it is projected to remain at 1.5% of GDP in 2025. The government debt-to-GDP ratio amounted to 33.5% at the end of 2024 and, according to the Commission, it is projected to increase to 34.8% end-2025.

([16]) Regulation (EU) 2024/1263 of the European Parliament and of the Council (EU) on the effective coordination of economic policies and on multilateral budgetary surveillance, together with the amended Regulation (EC) No 1467/97 on the implementation of the excessive deficit procedure, and the amended Council Directive 2011/85/EU on the budgetary frameworks of Member States are the core elements of the reformed EU economic governance framework.

([17]) OJ C/2025/644, 10.2.2025, ELI: http://data.europa.eu/eli/C/2025/644/oj

([18]) Communication from the Commission accommodating increased defence expenditure within the Stability and Growth Pact of 19 March 2025, C(2025) 2000 final.

([19]) Commission (2025) 'Debt Sustainability Monitor 2024,' *European Economy-Institutional Papers* 306.

Table A1.1: **General government balance and debt**

	Variables		2024	2025		2026	
			Outturn	APR	COM	APR	COM
1	General government balance	% GDP	-1.5	-1.3	-1.5	n.a.	-0.8
2	General government gross debt	% GDP	33.5	34.3	33.8	n.a.	33.3

Source: *Commission Spring 2025 Forecast (COM), Annual Progress Report (APR)*

Developments in net expenditure

The net expenditure([20]) growth rate of Sweden in 2025 is forecast by the Commission([21]) to be below the recommended maximum. Considering 2024 and 2025 together, also the cumulative growth rate is projected to be below the recommended maximum.

Table A1.2: **Net expenditure growth**

	Annual			Cumulative*		
	REC	APR	COM	REC	APR	COM
	Growth rates					
2024	n.a.	6.1%	6.1%	n.a.	n.a.	n.a.
2025	4.0%	4.1%	1.7%	10.7%	10.5%	7.9%
2026	4.4%	n.a.	2.6%	15.5%	n.a.	10.7%

* The cumulative growth rates are calculated by reference to the base year of 2023.

Source: Council Recommendation endorsing the national medium-term fiscal-structural plan of Sweden (Rec.)

General government defence expenditure in Sweden amounted to 1.3% of GDP in 2021, 1.7% of GDP in 2022 and 1.8% of GDP in 2023([22]). According to the Commission Spring 2025 forecast, expenditure on defence is projected at 2.3% of GDP in 2024 and at 2.5% of GDP in 2025.

([20]) Net expenditure is defined in Article 2(2) of Regulation (EU) 2024/1263 as government expenditure net of (i) interest expenditure, (ii) discretionary revenue measures, (iii) expenditure on programmes of the Union fully matched by revenue from Union funds, (iv) national expenditure on co-financing of programmes funded by the Union, (v) cyclical elements of unemployment benefit expenditure, and (vi) one-off and other temporary measures.

([21]) Commission Spring 2025 Forecast, *European Economy-Institutional paper 318, May 2025*.

([22]) Eurostat, government expenditure by classification of functions of government (COFOG)

Table A1.3: **Net expenditure growth (outturn and forecasts), annual and cumulated deviations vis-à-vis the recommendation**

	Variables		2023	2024	2025	2026
			Outturn	Outturn	COM	COM
1	Total expenditure	bn NAC	3066.1	3223.6	3279.0	3350.9
2	Interest expenditure	bn NAC	44.0	41.1	47.3	41.3
3	Cyclical unemployment expenditure	bn NAC	6.1	11.2	13.6	11.9
4	Expenditure funded by transfers from the EU	bn NAC	11.6	9.5	13.1	6.2
5	National co-financing of EU programmes	bn NAC	1.6	1.6	7.0	7.0
6	One-off expenditure (levels, excl. EU funded)	bn NAC	0.0	0.0	0.0	0.0
7=1-2-3-4-5-6	**Net nationally financed primary expenditure (before discretionary revenue measures, DRM)**	**bn NAC**	**3002.7**	**3160.1**	**3198.0**	**3284.5**
8	Change in net nationally financed primary expenditure (before DRM)	bn NAC		157.3	37.9	86.5
9	DRM (excl. one-off revenue, incremental impact)	bn NAC		-25.9	-15.4	2.2
10=8-9	**Change in net nationally financed primary expenditure (after DRM)**	**bn NAC**		**183.2**	**53.3**	**84.3**
11	Outturn / forecast net expenditure growth	% change		6.10%	1.7%	2.6%
12	Recommended net expenditure growth*	% change		6.4%	4.0%	4.4%
13=(11-12) x 7	Annual deviation	bn NAC		-9.0	-73.1	-56.4
14 (cumulated from 13)	Cumulated deviation	bn NAC		-9.0	-82.0	-138.4
15=13/17	**Annual balance**	**% GDP**		**-0.1**	**-1.1**	**-0.8**
16=14/17	**Cumulated balance**	**% GDP**		**-0.1**	**-1.2**	**-2.0**
17	p.m. Nominal GDP	bn NAC	6212.1	6447.5	6627.5	6869.9

* The growth rate for 2024 is not a recommendation but serves to anchor the base, as the latest year with outturn data when setting the net expenditure path is year 2023.

Source: *Commission Spring 2025 Forecast and Commission's calculation*

Table A1.4: **Defence expenditure**

			2021	2022	2023	2024	2025	2026
1	Total defence expenditure	% GDP	1.3	1.7	1.8	2.3	2.5	2.9
2	*of which: gross fixed capital formation*	% GDP	0.3	0.4	0.4	0.6	0.6	0.7

Source: *Eurostat (COFOG) and Commission Spring 2025 Forecast*

Table A1.5: **Macroeconomic developments and forecasts**

	Variables		2024	2025		2026	
			Outturn	APR	COM	APR	COM
1=7+8+9	**Real GDP**	**% change**	**1.0**	**2.1**	**1.1**	**n.a.**	**1.9**
2	Private consumption	% change	0.3	2.0	1.3	n.a.	2.1
3	Government consumption expenditure	% change	1.2	1.0	1.3	n.a.	0.4
4	Gross fixed capital formation	% change	-1.1	2.5	1.0	n.a.	2.0
5	Exports of goods and services	% change	2.3	2.9	2.0	n.a.	1.9
6	Imports of goods and services	% change	1.7	2.3	1.8	n.a.	1.3
	Contributions to real GDP growth						
7	- Final domestic demand	pps	0.2	1.7	1.2	n.a.	1.5
8	- Change in inventories	pps	0.3	-0.1	-0.2	n.a.	0.0
9	- Net exports	pps	0.4	0.5	0.1	n.a.	0.4
10	Output gap	% pot GDP	-1.7	-1.6	-1.9	n.a.	-1.4
11	Employment	% change	-0.3	0.1	0.2	n.a.	0.5
12	Unemployment rate	%	8.4	8.6	8.7	n.a.	8.4
13	Labour productivity	% change	1.3	2.0	0.9	n.a.	1.4
14	HICP	% change	2.0	2.1	2.2	n.a.	1.6
15	GDP deflator	% change	2.8	1.8	1.7	n.a.	1.7
16	Compensation of employees per head	% change	4.7	2.9	3.7	n.a.	3.5
17	Net lending/borrowing vis-à-vis the rest of the world	% GDP	7.1	n.a.	6.8	n.a.	7.0

Source: *Commission Spring 2025 Forecast (COM), Annual Progress Report (APR)*

Table A1.6: **General government budgetary position**

	Variables (% GDP)	2024	2025		2026	
		Outturn	APR	COM	APR	COM
1=2+3+4+5	**Revenue**	**48.5**	**48.5**	**47.9**	**n.a.**	**48.0**
	of which:					
2	- Taxes on production and imports	20.7	20.6	20.7	n.a.	20.7
3	- Current taxes on income, wealth, etc.	17.6	17.6	17.3	n.a.	17.4
4	- Social contributions	3.5	3.5	3.6	n.a.	3.6
5	- Other (residual)	6.8	6.8	6.4	n.a.	6.3
8=9+16	**Expenditure**	**50.0**	**49.7**	**49.5**	**n.a.**	**48.8**
	of which:					
9	- Primary expenditure	49.4	49.1	48.8	n.a.	48.2
	of which:					
10	- Compensation of employees	12.6	12.4	12.3	n.a.	12.4
11	- Intermediate consumption	8.4	8.3	8.5	n.a.	8.3
12	- Social payments	15.0	15.1	14.9	n.a.	14.5
13	- Subsidies	1.2	1.2	1.1	n.a.	0.9
14	- Gross fixed capital formation	5.4	5.6	5.5	n.a.	5.6
15	- Other	6.8	6.5	6.6	n.a.	6.5
16	- Interest expenditure	0.6	0.6	0.7	n.a.	0.6
18=1-8	**General government balance**	**-1.5**	**-1.3**	**-1.5**	**n.a.**	**-0.8**
19=1-9	**Primary balance**	**-0.9**	**-0.7**	**-0.8**	**n.a.**	**-0.2**
20	Cyclically adjusted balance	-0.5	n.a.	-0.5	n.a.	0.0
21	One-offs	0.0	0.0	0.0	n.a.	0.0
22=20-21	**Structural balance**	**-0.5**	**-0.4**	**-0.4**	**n.a.**	**0.0**
23=22+16	Structural primary balance	0.1	0.2	0.3	n.a.	0.6

Source: *Commission Spring 2025 Forecast (COM), Annual Progress Report (APR)*

Table A1.7: **Debt developments**

	Variables	2024	2025		2026	
		Outturn	APR	COM	APR	COM
1	**Gross debt ratio* (% of GDP)**	**33.5**	**34.3**	**33.8**	**n.a.**	**33.3**
2=3+4+8	Change in the ratio (pps. of GDP)	1.9	0.8	0.3	n.a.	-0.5
	Contributions**					
3	**Primary balance**	**0.9**	**0.7**	**0.8**	**n.a.**	**0.2**
4=5+6+7	**'Snow-ball' effect**	**-0.5**	**-0.7**	**-0.2**	**n.a.**	**-0.6**
	of which:					
5	- Interest expenditure	0.6	0.6	0.7	n.a.	0.6
6	- Real growth effect	-0.3	-0.7	-0.4	n.a.	-0.6
7	- Inflation effect	-0.9	-0.6	-0.6	n.a.	-0.6
8	**'Stock-flow' adjustment**	**1.5**	**0.7**	**-0.3**	**n.a.**	**-0.1**

* End of period.

** The 'snow-ball' effect captures the impact of interest expenditure on accumulated general government debt, as well as the impact of real GDP growth and inflation on the general government debt-to-GDP ratio (through the denominator). The stock-flow adjustment includes differences in cash and accrual accounting (including leads and lags in Recovery and Resilience Facility grant disbursements), accumulation of financial assets, and valuation and other residual effects.

Source: *Commission Spring 2025 Forecast and Commission's calculation (COM), Annual Progress Report (APR)*

Table A1.8: **RRF – Grants**

	Revenue from RRF grants (% of GDP)							
		2020	2021	2022	2023	2024	2025	2026
1	RRF grants as included in the revenue projections	n.a.	0.1	0.1	0.1	0.1	0.1	0.0
2	Cash disbursements of RRF grants from EU	n.a.	0.0	0.0	0.0	0.0	0.3	0.3

	Expenditure financed by RRF grants (% of GDP)							
		2020	2021	2022	2023	2024	2025	2026
3	Total current expenditure	0.0	0.1	0.1	0.1	0.1	0.1	0.0
4	Gross fixed capital formation	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	Capital transfers	0.0	0.0	0.1	0.1	0.0	0.1	0.0
6=4+5	Total capital expenditure	0.0	0.0	0.1	0.1	0.0	0.1	0.0

	Other costs financed by RRF grants (% of GDP)							
		2020	2021	2022	2023	2024	2025	2026
7	Reduction in tax revenue	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	Other costs with impact on revenue	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	Financial transactions	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: *Annual Progress Report*

Cost of ageing

Total age-related spending in Sweden is projected to remain broadly stable over the medium-to-long term, rising slightly from 24% of GDP in 2024 to 24.5% in 2070 (see Table A1.9**).** Beneath this overall stability lie opposing changes for the different components, with rising spending on long-term care and healthcare being mostly offset by lower pension and education expenditure.

Public healthcare ([23]) expenditure is projected at 7% of GDP in 2024 (above the EU average of 6.6%) and is expected to increase by 0.3 pps by 2040 and by a further 0.4 pps by 2070.

Public expenditure on long-term care ([24]) is projected at 3.2% of GDP in 2024 (above the EU average of 1.7%) and is expected to increase by 0.5 pps of GDP by 2040 and by a further 0.7 pps by 2070.

Table A1.9: **Projected change in age-related expenditure in 2024-2040 and 2024-2070**

	age-related expenditure 2024 (% GDP)	change in 2024-2040 (pps GDP) due to:					age-related expenditure 2040 (%GDP)	
		pensions	*healthcare*	*long-term care*	*education*	*total*		
SE	24.0	*-0.9*	*0.3*	*0.5*	*-0.4*	***-0.5***	23.5	**SE**
EU	24.3	*0.5*	*0.3*	*0.4*	*-0.3*	***0.9***	25.2	EU

	age-related expenditure 2024 (% GDP)	change in 2024-2070 (pps GDP) due to:					age-related expenditure 2070 (%GDP)	
		pensions	*healthcare*	*long-term care*	*education*	*total*		
SE	24.0	*-0.8*	*0.7*	*1.2*	*-0.6*	***0.5***	24.5	**SE**
EU	24.3	*0.2*	*0.6*	*0.8*	*-0.4*	***1.3***	25.6	EU

Source: *2024 Ageing Report (EC/EPC)*

([23]) Key performance characteristics, recent reforms and investments are discussed in Annex 11 'Health and health systems'.

([24]) The quality and the accessibility of the long-term care system are covered in Annex 9 'Social policies'.

National fiscal framework

The Swedish Fiscal Policy Council (SFPC) is a well-established but relatively small independent fiscal institution with a narrow mandate, which could benefit from enhanced independence safeguards. It focuses on ex-post assessment of compliance with fiscal rules, whereas assessments of the macroeconomic forecast underlying the government's budgetary plans are performed occasionally and on a voluntary basis. It keeps a rather low media profile and has relatively limited interaction with Parliament. Mandates of Board members are shorter than the electoral cycle, making both name recognition and build-up of institutional memory more difficult. Although the SFPC does not report many obstacles on access to information, no formal legal protection has been established.

Table A1.10:**Fiscal Governance Database Indicators**

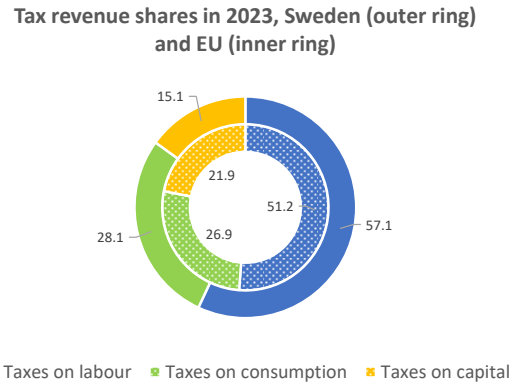
2023	Sweden	EU Average
Country Fiscal Rule Strength Index (C-FRSI)	15.71	14.52
Medium-Term Budgetary Framework Index (MTBFI)	0.80	0.73

The Country Fiscal Rule Strength Index (C-FRSI) shows the strength of national fiscal rules aggregated at the country level based on i) the legal base, ii) how binding the rule is, iii) monitoring bodies, iv) correction mechanisms, and v) resilience to shocks. The Medium-Term Budgetary Framework Index (MTBFI) shows the strength of the national MTBF based on i) coverage of the targets/ceilings included in the national medium-term fiscal plans; ii) connectedness between these targets/ceilings and the annual budgets; iii) involvement of the national parliament in the preparation of the plans; iv) involvement of independent fiscal institutions in their preparation; and v) their level of detail. A higher score is associated with higher rule and MTBF strength.
Source: *Fiscal Governance Database*

This annex provides an indicator-based overview of Sweden's tax system. It includes information on: (i) the tax mix; (ii) competitiveness and fairness aspects of the tax system; and (iii) tax collection and compliance.

Although they have declined in recent years, tax revenues in Sweden remain relatively high as a share of GDP at 41.3% in 2023 compared with an EU-average of 39%. They further decreased slightly to 41.0% in 2024. The tax mix relies heavily on labour taxation, which was equivalent to 24% of GDP in 2023, compared with an EU-average of 20%, while capital taxes as a share of GDP are clearly below the EU average (see Table A2.1). To increase labour supply, the marginal tax rate was reduced in 2025, and reductions in the earned income tax deduction were also removed (at a cost for 2025 of SEK 4.71 billion, EUR 0.43 billion).

Graph A2.1: **Tax revenue shares in 2023**



Source: Taxation Trends Data, DG TAXUD

Sweden has a relatively stringent carbon-taxation framework, although environmental taxes as a share of GDP are slightly below the EU-average. Environmental taxes are low in absolute terms in Sweden in part due to the country's low emissions. However, carbon is priced stringently when one compares tax rates: Sweden has the fourth highest effective average carbon tax rate (adjusted for free allocation under the EU Emissions Trading System (ETS) out of 71 countries that report to the OECD ([25]). This can be partially explained by the relatively low tax base on which the tax is levied. For example, electricity in Sweden is mostly generated from low-carbon sources. Sweden has reduced energy taxes on fuels, and plans to abolish completely the aviation tax in Swedish airports to promote growth and mobility in the country (Budget 2025).

Sweden has a relatively low rate of capital taxation, including property taxation. Revenues from property taxation are low at the equivalent of 1.0% of GDP in 2023 (EU-average 1.9%), as are recurrent property taxes, which were equivalent to 0.6% of GDP (against an EU-average of 1.0%). Furthermore, unlike most Member States, mortgage interest costs are fully deductible in Sweden. Although there is capital gains tax in Sweden on the sale of property, this can normally be deferred through the purchase of a new property. 22/30 of the capital gain is taxable at a rate of 30%, and 50% of any loss is deductible. This loss can be used to reduce the purchase tax when subsequently buying a new property. In the field of capital-gains taxation, the Swedish RRP includes: (i) a plan to increase the maximum amount of deferrable capital-gains taxation resulting from the sale of a dwelling (this was implemented on 1 July 2020); and (ii) the ending of interest payments on such deferred capital gains (this was implemented on 1 January 2021).

The Swedish capital-taxation system can be considered as conducive to private investment. Sweden relies less than other Member States on tax expenditures and tax incentives to promote investment. Instead, it relies more on financial instruments such as loans and guarantees, as well as measures to promote jobs and skills. Capital gains derived from the sale of shares, including the right to sell shares in the future (and capital gains from other securities in resident and non-resident companies) are not subject to tax in Sweden provided that they constitute a business holding. Out of 27 Member States, Sweden ranks third in the tax complexity index and therefore has one of the least complex corporate tax systems in the EU.

([25]) 78.58 Rate Unit: Real 2021 EUR/tCO2e (source: OECD Series on Carbon Pricing and Energy Taxation)

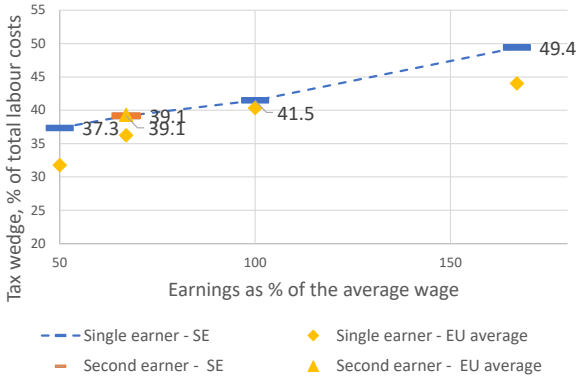
Table A2.1: **Taxation indicators**

		Sweden					EU-27				
		2010	2021	2022	2023	2024	2010	2021	2022	2023	2024
Tax structure	Total taxes (including compulsory actual social contributions) (% of GDP)	43.1	42.8	42.5	41.3	41.0	37.8	40.2	39.7	39.0	
By tax base	Taxes on labour (% of GDP)	24.3	24.1	23.8	23.6		19.8	20.5	20.1	20.0	
	of which, social security contributions (SSC, % of GDP)	2.7	2.7	2.6	2.6		12.9	13.0	12.7	12.7	
	Taxes on consumption (% of GDP)	12.7	11.8	12.1	11.6		10.9	11.2	10.9	10.5	
	of which, value added taxes (VAT, % of GDP)	9.1	9.1	9.4	8.9		6.8	7.3	7.4	7.1	
	Taxes on capital (% of GDP)	6.1	6.8	6.6	6.2		7.1	8.5	8.7	8.5	
Some tax types	Personal income taxes (PIT, % of GDP)	14.7	14.6	14.1	13.5		8.6	9.6	9.4	9.3	
	Corporate income taxes (CIT, % of GDP)	3.1	3.5	3.5	3.5		2.2	2.9	3.2	3.2	
	Total property taxes (% of GDP)	1.0	1.0	1.1	1.0		1.9	2.2	2.1	1.9	
	Recurrent taxes on immovable property (% of GDP)	0.7	0.7	0.7	0.6		1.1	1.1	1.0	0.9	
	Environmental taxes (% of GDP)	2.7	1.9	1.9	2.0		2.5	2.4	2.1	2.0	
	Effective carbon rate in EUR per tonne of CO_2 equivalents	NA	110.2	NA	89.7		NA	86.0	NA	84.8	
Progressivity & fairness	Tax wedge at 50% of average wage (single person) (*)	39.0	37.9	37.5	37.9	37.3	33.9	31.8	31.5	31.5	31.8
	Tax wedge at 100% of average wage (single person) (*)	42.8	42.5	42.4	42.2	41.5	40.9	39.9	39.9	40.2	40.3
	Corporate income tax - effective average tax rates (1) (*)	24.6	19.3	19.3	19.3		21.3	19.3	19.1	18.9	
	Difference in Gini coefficient before and after taxes and cash social transfers (pensions excluded from social transfers) (2) (*)	10.3	9.9	9.2	8.8		8.6	8.2	7.9	7.7	
Tax administration & compliance	Outstanding tax arrears: total year-end tax debt (including debt considered not collectable) / total revenue (in %) (*)		0.9	0.7				35.5	32.6		
	VAT gap (% of VAT total tax liability, VTTL) (**)		5.4	5.5				6.6	7.0		

(1) Forward-looking effective tax rate (KPMG).
(2) A higher value indicates a stronger redistributive impact of taxation.
(*) EU-27 simple average.
(**) Forecast value for 2023. For more details on the VAT gap, see European Commission, Directorate-General for Taxation and Customs Union, VAT gap in the EU - 2024 report, https://data.europa.eu/doi/10.2778/2476549
For more data on tax revenues as well as the methodology applied, see the Data on Taxation webpage, https://ec.europa.eu/taxation_customs/taxation-1/economic-analysis-taxation/data-taxation_en.
Source: European Commission, OECD

Sweden has a high tax wedge ([26]) at all levels of income, in particular at the lowest and highest earnings levels, compared with the EU average. The tax wedge of low-income earners at 50% of the average income (37.3% in 2024) is particularly high compared with the EU average (31.8%; see Graph A2.2 below). Sweden has introduced a number of measures in recent years to help low- and middle-income earners and pensioners. The 2025 budget includes tax cuts on labour and for pensioners by strengthening both the ordinary earned income tax credit and the increased basic tax credit. The tax reductions mainly target full-time workers with low and medium incomes, and include: (i) extending the reduction in employer contributions to cover up to two employees; and (ii) raising the cap for the amount of compensation eligible for the reduction from SEK 25,000 to SEK 35,000 (EUR 2,300-3,200). Relatively high labour taxation is coupled with a relatively high redistributive capacity of the system. In particular, in 2023, the Swedish tax and benefit system reduced inequality as measured by the Gini coefficient by 8.8 points. This reduction in income inequality was greater than the EU-average of 7.7 points.

Graph A2.2: **Tax wedge for single and second earners, % of total labour costs, 2024**



The tax wedge for second earners assumes a first earner at 100% of the average wage and no children. For the full methodology, see OECD, 2016, Taxing Wages 2014-2015.
Source: European Commission

Sweden has a low effective tax rate on capital compared with both other forms of income (such as employment income) and other Member States. Sweden does not have any inheritance or gift taxes. Furthermore, Sweden

([26]) The tax wedge is defined as the sum of personal income taxes and employee and employer social-security contributions net of family allowances, expressed as a percentage of total labour costs (the sum of the gross wage and social-security contributions paid by the employer).

has one of the largest differences in the OECD between the statutory tax rate on employment income and dividend income (at 8% compared with the OECD average of 0.6%) ([27]). This may have the effect of using income-shifting methods to re-classify employment income as capital income. Empirical evidence suggests that there has been extensive profit shifting between tax bases in Sweden to lower taxation, especially by owners of closely controlled corporations ([28]).

The Swedish tax system performs relatively well in terms of tax administration. The VAT compliance gap in 2022 at 5.5% is below the EU-average of 7%. In terms of tax collection, tax arrears were low at 0.7% of total tax revenue. At the same time, there are issues with digitalisation and Sweden has the lowest e-filing rates for businesses in the EU at 63.3%. Tax-compliance costs for SMEs are relatively high, and well above the EU average. No special measures have been implemented to reduce the CIT compliance burden for SMEs. Sweden's cost-of-collection ratio has been stable during recent years, amounting to around 0.4% of total revenue between 2018 and 2021.

([27]) OECD Economic Surveys: Sweden 2023.

([28]) Alstadstaeter and Jacobs, 2016.

Sweden is a top performer in research and innovation (R&I), but needs to ensure adequate R&D investment, scientific and innovation production and supply of talent to maintain its position ([29]). Research, innovation and education are central to Sweden's productivity, prosperity and ability to handle societal challenges ([30]). The 2024 European Innovation Scoreboard ranks Sweden as an 'innovation leader', performing much better than the EU average (132.9%). While performance is above the average of the innovation leaders, it has been increasing less than the EU average since 2017 (+9.3 percentage points vs +10 percentage points) ([31]). Strong performance is driven by one of the highest R&D intensities (gross domestic expenditure on R&D as a percentage of GDP) in the EU (3.6% in 2023), having increased over the last 10 years (3.12% in 2014), and remains well above the EU average and close to international competitors such as the USA (3.45% in 2023) and above China (2.43% in 2021) ([32]). The high investment in R&D is however not fully reflected when it comes to scientific outcomes and results, and future investment might be hampered by a shortage of highly skilled staff in science, technology and engineering. Furthermore, Sweden is progressing well in business digitalisation, particularly on the use of digital tools by small and medium-sized enterprises (SMEs). This contributes strongly to the EU Digital Decade targets ([33]).

([29]) https://www.government.se/press-releases/2024/12/excellent-research-and-innovation-are-encouraged-in-largest-ever-research-and-innovation-bill/.

([30]) Sweden's Productivity Commission. Interim report (SOU 2024:29). https://www.regeringen.se/rattsliga-dokument/statens-offentliga-utredningar/2024/04/sou-202429/.

([31]) European Commission, 2024, *European Innovation Scoreboard (EIS), country profile: Sweden,* ec.europa.eu.

([32]) Govt. Bill 2022/23: I Expenditure area 16, p. 209. Sweden is however falling short of its own target of 4% set as part of the Europe 2020 strategy (Govt. Bill 2020/21: I Expenditure area 16, p. 250).

([33]) The Digital Decade policy programme sets out a pathway for the EU's digital transformation, including concrete commitments from Member States to commonly achieve objectives (e.g. competitiveness, resilience, sovereignty) and digital targets by 2030.

Science and innovative ecosystems

Sweden can count on a robust science base, but its global scientific excellence has declined slightly over time. Its science system builds on a well-established network of public research institutions and is supported by numerous R&I funding programmes. Sweden's public expenditure on R&D as a percentage of GDP is the fourth highest in the EU (0.92% vs EU average of 0.72% in 2023) and above the USA (0.64%). Nonetheless, despite a high number of publications, the quality of research outputs, as measured by the share of scientific publications within the top 10% most cited publications worldwide as a percentage of total publications, has decreased slightly (from 12.9% in 2017 to 12.2% in 2021). While this is still well above the EU average (9.6%), Sweden is not included among the five countries with the highest citation impact in the OECD ([34]). A key issue across the Swedish research system is a lack of strategic alignment, shared priorities and clear direction, which constrains collective efforts ([35]).

The new Swedish Research and Innovation Bill 2025-28 envisages a boost to R&D expenditure and scientific excellence. The Bill titled 'Research and innovation for the future: Curiosity and benefit' ([36]) is based on a review of the current research system, acknowledging the complexity of having multiple funding authorities, the need for a more streamlined funding process and a more coherent system from research to commercialisation. It also foresees a significant overall increase in the research budget ([37]). The

([34]) Sweden's slight statistical decrease in citation impact is also due to other countries' increase in citation impact, in particular from China. The Swedish Research Barometer 2023, Vetenskapsrådet.

([35]) OECD (2023): Public research funding in Sweden https://www.oecd.org/en/publications/public-research-funding-in-sweden_9eb9a85b-en.html.

([36])https://www.regeringen.se/pressmeddelanden/2024/12/excellent-forskning-och-innovationskraft-premieras-i-den-storsta-forsknings--och-innovationspropositionen-nagonsin/.

([37]) The R&I Bill foresees a strong increase over the next four years, from SEK 1.5 bn in 2025 to SEK 2.5 bn in 2026, SEK 4.0 bn in 2027, and to SEK 6.5 bn in 2028.

aim is to position Sweden among the foremost R&I countries and as a leading knowledge nation. Excellence clusters are envisaged to promote long-term cooperation for breakthrough technologies in various technological fields. To strengthen excellent research, strategic priority areas have been identified. Specific funding allocations are envisaged for the development of advanced research infrastructure, life sciences and health, strategic recruitment at universities and university colleges, the Science Council, including excellence centres, the circular bioeconomy and for AI research. With the aim of further strengthening the focus on excellence, the government envisages increased competition in distributing research funding to universities.

Business innovation

Sweden is home to a thriving high-tech innovation ecosystem, underpinned by high business R&D expenditure. Its business R&D intensity of 2.67% in 2023, which is the highest in the EU, has increased slightly over the last 10 years and comes close to the level of international competitors such as the USA (2.7% in 2023). This is the result of investments by its innovative SMEs and by internationally competitive and innovative large companies. According to the 2024 EU Industrial R&D Investment Scoreboard, Sweden has achieved above-average R&D investment growth, led by companies such as Ericsson, Geely Sweden Holding and Volvo. They together contributed over EUR 1.9 billion in R&D spending. Its R&D ecosystem remains stable and diversified, with notable strengths in ICT hardware and automotive. Sweden's sectoral diversification is complemented by the emergence of several innovative companies. The size of the ICT sector is above the EU average (7% vs 5% in gross value added in 2020), and its R&D business expenditure amounted to 28.7% of total R&D expenditure in 2021. Public research expenditure partly contributes to strengthening the research efforts of the business sector, for example through the Swedish Innovation Agency ([38]). The government requested an investigation into the current R&D tax deduction framework ([39]). The proposed Budget Bill for 2025 intends to continue improving the tax conditions that support companies' opportunities to conduct R&D, including through exploring a new R&D tax incentive.

The adoption of digital technologies by firms in Sweden is strong. The take-up rate for the combined adoption of AI, cloud computing and data analysis is 86.6%, which is above the EU average of 72.9%. This makes a significant contribution to the related EU digital targets (see table below).

Strong innovation activities are particularly driven by the important role of SMEs in innovation. As reported in the EU Industrial R&D Investment Scoreboard, of all EU countries, Sweden has the highest share of SMEs (28.3%) among the top 900 R&D investors in the EU. Business enterprise expenditure on R&D by SMEs as a percentage of GDP is at a high level (0.52% in 2021), above both the EU (0.40%) and USA (0.30%). This is well reflected in relevant indicators that measure innovation output in SMEs (e.g. SMEs introducing product and process innovation), for which Sweden ranks well above the EU average and shows improved performance. Furthermore, Sweden also enjoys a relatively dynamic development in start-ups and is home to 41 unicorns (ranking 9th in the world). The country has the third highest share in the EU of firms with innovations that are new to the country or the global market according to the EIB Investment Survey 2024 ([40]) This development has been driven by an above EU average level of venture capital as a percentage of GDP (0.141% vs 0.078%) and is helped by a strong support system. The Swedish National Incubator Programme promotes innovation and business development by giving start-ups the support they need to grow and develop ([41]). The programme supports just over 30 regional innovation environments across the country. Sweden's overall innovative capacity is also underlined by a high number of patent applications (per billion of GDP), which stand at 7.6 compared to an EU average of 2.8. However, this

([38]) A key example involves various strategic innovation programmes in areas of strategic importance: https://www.vinnova.se/en/m/strategic-innovation-programmes/ .

([39]) Skatteincitament för forskning och utveckling. En översyn av FoU-avdraget och expertskattereglerna, SOU 2025:3.

([40]) https://www.eib.org/attachments/lucalli/20240238_econ_eibis_2024_eu_en.pdf pp. 15 and 22.

([41]) https://www.vinnova.se/m/inkubation-starker-sveriges-innovations--och-fornyelseformaga/.

number has been decreasing over the last decade (9.4 in 2015).

Strengthening science-business cooperation will be key to boosting innovation and competitiveness. The share of public expenditure on R&D financed by the business enterprise sector as a percentage of total public expenditure on R&D, which is an important indicator of public-private cooperation, has declined since 2011 (to 3.08% in 2021), and Sweden remains below the EU average (6.96%). However, Sweden performs well on the share of public-private scientific co-publications as a percentage of the total number of publications (12% in 2023), which has increased slightly since 2012 and remains above the EU average (7.7%) and the USA (8.9%).

Financing innovation

As a positive framework condition, venture capital represents a growing funding source for finance innovation activities in Sweden. Venture capital expenditure has tripled since 2017, reaching 0.35% of GDP in 2024, which represents 143.8% of the EU average. International venture capital investors, particularly from the USA, have been increasing their presence in Sweden, attracted by its entrepreneurial business culture and government-backed financial support of early stage companies (e.g. Industrifonden, Alm Invest). Accompanied by tax reforms that target the needs of small, technology-based firms and the Swedish governance model, an appropriate risk culture has developed. Early stage dominates the market; ICT and life science account for 70% of venture and growth capital funding in Sweden, despite these sectors only accounting for about 10% of the total economy.

Innovative talent

A shortage of highly skilled staff in science, technology and engineering might hamper future investment in R&D in Sweden. In Sweden's most R&D-intensive companies, the availability of skilled staff is a key factor in decisions on where to invest in R&D. Despite recent improvements, 45% of companies still consider it difficult to recruit R&D staff ([42]). The number of new doctoral graduates in STEM has gradually declined since 2017 (-46.3% points). Increased participation and interest among young people in STEM education would be key to strengthening competitiveness and innovation, and matching skills needs (See Annex on Education and Skills). Job-to-job mobility of human resources in science and technology has been declining sharply since 2017 (-61.8% points) and is now below half of the EU average. Limited labour mobility points to shortages in affordable housing and insufficient integration of low-skilled workers into the labour market ([43]). In order to strengthen the ability to recruit the best researchers for excellent research, the new Swedish Research and Innovation Bill 2025-28 improves incentives for strategic recruitment, with the focus on associate senior lecturers. This includes the introduction of a new career support grant to attract talented early career researchers.

Sweden has a well-developed system for entrepreneurship education, with close collaboration between the public sector, businesses and civil society. Entrepreneurship education is embedded in the Swedish curriculum for primary and secondary education, and is rapidly growing in higher education as well. Besides formal learning, there is close collaboration between schools, civil society and the business world to provide quality entrepreneurship education. For instance, the successful *Ung företagsamhet* (Junior Achievement Sweden) programme offered by a non-profit organisation is the largest nationwide entrepreneurship initiative for schools, reaching 631 schools in 197 of Sweden's 290 municipalities.

([42]) https://www.iva.se/contentassets/77c663c0a5654043ac20e06df3bcc8d8/iva-fou-barometern-2024.pdf.

([43]) https://ec.europa.eu/assets/rtd/eis/2024/ec_rtd_eis-country-profile-se.pdf.

Table A3.1: **Key innovation indicators**

Sweden	2012	2017	2020	2021	2022	2023	2024	EU average (1)	USA
Headline indicator									
R&D intensity (gross domestic expenditure on R&D as % of GDP)	3.25	3.39	3.5	3.42	3.47	3.6	:	2.24	3.45
Science and innovative ecosystems									
Public expenditure on R&D as % of GDP	1.04	0.97	0.96	0.94	0.91	0.92	:	0.72	0.64
Scientific publications of the country within the top 10% most cited publications worldwide as % of total publications of the country	13.4	12.9	12.1	12.2	:	:	:	9.6	12.3
Researchers (FTE) employed by public sector (Gov+HEI) per thousand active population	3.8	4.1	4.3	4.2	4.3	:	:	4.2	:
International co-publications as % of total number of publications	55.6	63.3	67	67.9	67.9	67.7	:	55.9	39.3
R&D investment & researchers employed in businesses									
Business enterprise expenditure on R&D (BERD) as % of GDP	2.2	2.42	2.53	2.47	2.56	2.67	:	1.49	2.7
Business enterprise expenditure on R&D (BERD) performed by SMEs as % of GDP	:	0.47	:	0.52	:	:	:	0.4	0.3
Researchers employed by business per thousand active population	5.9	10.1	10.9	14.6	14.8	15.2	:	5.7	:
Innovation outputs									
Patent applications filed under the Patent Cooperation Treaty per billion GDP (in PPS €)	9.9	9.7	8.6	8	7.6	:	:	2.8	:
Employment share of high-growth enterprises measured in employment (%)	16.66	17.77	19.18	:	:	:	:	12.51	:
Digitalisation of businesses									
SMEs with at least a basic level of digital intensity % SMEs (EU Digital Decade target by 2030: 90%)	:	:	:	:	86.86	:	86.56	72.91	:
Data analytics adoption % enterprises (EU Digital Decade target by 2030: 75%)	:	:	:	:	:	34.96	:	33.17	:
Cloud adoption % enterprises (EU Digital Decade target by 2030: 75%)	:	:	:	69.17	:	66	:	38.86	:
Artificial intelligence adoption % enterprises (EU Digital Decade target by 2030: 75%)	:	:	:	9.92	:	10.37	25.09	13.48	:
Academia-business collaboration									
Public-private scientific co-publications as % of total number of publications	10.8	11.6	11.6	11.9	12.2	12	:	7.7	8.9
Public expenditure on R&D financed by business enterprises (national) as % of GDP	:	0.039	:	0.029	:	:	:	0.05	0.02
Public support for business innovation									
Total public sector support for BERD as % of GDP	:	:	:	0.14	:	:	:	0.204	0.251
R&D tax incentives: foregone revenues as % of GDP	:	0.012	0.03	0.038	0.040	0.042	:	0.102	0.141
BERD financed by the public sector (national and abroad) as % of GDP	:	:	:	0.102	:	:	:	0.100	0.110
Financing innovation									
Venture capital (market statistics) as % of GDP, total (calculated as a 3-year moving average)	0.061	0.044	0.09	0.126	0.157	0.141	:	0.078	:
Seed stage funding share (% of total venture capital)	1.8	5	5.2	5.6	5.2	5.2	:	7.3	:
Start-up stage funding share (% of total venture capital)	47.7	50.3	61.2	49	42.3	39.6	:	44	:
Later stage funding share (% of total venture capital)	50.6	44.7	33.6	45.4	52.5	55.2	:	48.7	:
Business innovation enablers: Innovative talent									
New graduates in science and engineering per thousand population aged 25-34	16.8	12.6	12.9	13.7	13.8	:	:	17.5	:
Graduates in the field of computing per thousand population aged 25-34	2.1	2.3	2.7	3.4	4.2	:	:	3.6	:

(1) EU average for the last available year or the year with the largest number of country data.

Source: Eurostat, DG JRC, OECD, Science-Metrix (Scopus database), Invest Europe, European Innovation Scoreboard

Sweden is a business-friendly economy, considered as one of the easiest countries in the EU to start a business in. SMEs benefit from low regulatory barriers, affordable access to finance, and good digital and transport infrastructure. Sweden's regulatory framework is competition-friendly for almost all professional and retail services. Nevertheless, Sweden could benefit from further integration into the EU single market. The lack of skilled staff, uncertainty about the future and high energy costs are obstacles hindering business investments. Furthermore, late payments from both private and public sectors remain a concern and have an impact on bankruptcies.

Economic framework conditions

Sweden's private investment is above the EU average but has been declining. Net fixed capital formation as a share of GDP has declined from 6.54% (2022) to 5.3% (2023) and 4.26% in 2024, compared to EU average of 3.44%. Despite this decline, Sweden's five-year average (5.71%) is still higher than the EU average (4.01%) ([44]). To turn this trend around, the government is considering policies such as tax incentives, infrastructure development, and education programmes to boost investment. Private investment is essential to supporting Sweden's economic growth. Greater coordination and an acceleration of the simplification of the regulatory environment would help increase investment.

Public investment has been increasing, and it is above the EU average. In 2022, it stood at 1.47% of GDP, increasing to 1.57% in 2023 and further to 1.61% in 2024, compared to the EU average of 1.32% share of GDP. Furthermore, Sweden's five-year average of 1.63% is higher than the EU average of 1.01%, indicating a strong commitment to public investment ([45]).

Foreign direct investment (FDI) showed a decline but remains high. Sweden's FDI fell by 34 per cent from the record year of 2022 to EUR 30 billion) but the figure remains high ([46]). Weak demand in the global economy, rising uncertainty, and geopolitical tensions are holding back FDI performance.

The main obstacles to investment are availability of skilled staff, uncertainty about the future and high energy costs. According to the EIB Investment Survey ([47]), the three main obstacles to investment for Swedish businesses are the availability of skilled staff (78% vs EU average 77%), uncertainty about future economic conditions (78% vs EU average 79%) and high energy costs (59% vs EU average 77%). Addressing these obstacles is crucial to ensuring a favourable business environment and maintaining Sweden's competitiveness and prosperity.

Compared to other EU countries, Swedish firms are less likely to consider business regulations, access to finance, and digital/transport infrastructure as obstacles to investing. According to the EIB Investment Survey ([48]), fewer Swedish firms (51%) identify business regulations as a barrier than the EU average (66%). They are less likely to face financing issues (33% vs 45% EU average). Similarly, they do not consider transport infrastructure (38% vs EU 45%) or digital infrastructure (25% vs EU 41%) as a barrier.

Swedish businesses face slightly higher payment delays than the EU average. The business-to-business payment gap has been increasing since 2021 and now stands at 16.7 days, compared to the EU average of 15.5 day. Similarly, the payment gap for payments from the public sector has been increasing since 2021 (13.4 days) and by 2024 was higher than the EU average (17.9 vs EU average of 15.2 days) ([49]). This trend impacts SMEs negatively. According to the 2024 Intrum payment report, there has been a deterioration in payment performance in business-to-business transactions ([50]).

([44]) AMECO

([45]) AMECO

([46]) Sweden FDI

([47]) EIB Investment Survey 2024

([48]) EIB investment Survey 2024

([49]) European Payment Report 2024 | Intrum

([50]) Intrum Payment Report 2024

Graph A4.1: **Making Business Easier: selected indicators.**

Share of (1) enterprises, (2) average intra-EU exports and imports in GDP, (3) firms, (4) SMEs.
Sources: (1) EIB IS, (2) Eurostat, (3) ECFIN BCS, (4) SAFE survey.

Material shortages are a concern in Sweden. In 2024, 20.7% of firms in Sweden experienced material shortages, exceeding the EU average of 10% ([51]). This weak resilience stands out as a trend over a five-year period, with 29.4% of Swedish firms reporting material shortages compared to the EU average of 17.8%.

Sweden continues to improve its digital infrastructure, including through its RRP. 5G coverage in Sweden has made substantial progress over recent years. Sweden is very active in deploying connectivity infrastructure. A large proportion of households already have access to fibre and 5G networks; however, the most remote households will be the costliest to connect to a very high-capacity network (VHCN). By 2024, Sweden's 5G coverage continued to increase, with 65.5% of households accessing the vital 3.4-3.8 GHz band. Cybersecurity awareness is rising among Swedish businesses: ICT security incident rates slightly fell from 3.77% in 2022 to 3.70% in 2024, still above the EU average. While 92.65% implemented security measures, 67.10% enterprises trained employees on their ICT security obligations, surpassing the EU average.

Regulatory and administrative barriers

Sweden is a business-friendly economy, with fewer regulatory obstacles than the EU average. In 2023, just 10% of Swedish firms cited business regulations as a major barrier to investment, compared to 22.2% in the EU. In 2024, 9.1% of Swedish firms identified regulation as a major barrier for investment, substantially lower than the EU average of 24.5% ([52]).

The number of bankruptcies is rising in Sweden ([53]). Over the past five years, Sweden has had a slightly higher rate of insolvencies than the EU average, with Sweden at 124.9 and the EU at 122.5. This rate has been increasing, starting from the base figure of 100 in 2020 and rising to 105.6 (2022), then 127.8 (2023), before reaching 166.2 in 2024. Meanwhile, the EU average was 143.1 in 2024. The number of business registrations over the past five years is 89.9, where 100 is the 2020 base figure, versus the EU average of 98 ([54]), indicating a weak business dynamism (see Annex 7).

Single market

Swedish firms face fewer regulatory obstacles to entry and expansion. According to the OECD 2023-2024 product market regulation indicators (PMR) ([55]), Sweden's regulatory framework is competition-friendly in almost all the areas covered by the PMR indicators. However, there is still room to improve the mechanisms for assessing the impact on competition of new and

([51]) ECFIN BCS

([52]) EIBIS. Regulatory Obstacles

([53]) Statistics | Eurostat. Bankruptcies

([54]) Eurostat. Business Registrations

([55]) Sweden PMR country note

existing laws. Despite Sweden's sound performance in the PMR indicators, improvements can be still made in the regulatory framework in the e-communications, air transport, and natural gas sectors.

Professional services are less strictly regulated than in the average OECD economy, except for real estate agents. This is partially explained by the fact that real estate agents manage the conveyancing process in Sweden, a task typically handled by notaries or lawyers in other countries. According to the Restrictiveness Indicator (RI) ([56]), restrictions on the profession of real estate agent are well above the EU average (3.18 in 2021 vs EU average 1.30).

Sweden is an open economy that could benefit from further integration into the EU. Intra-EU imports and exports are 30% of Swedish GDP (compared to the EU average of 42.14% in 2024) ([57]). Sweden's intra-EU service exports stood at represented 9.8% of GDP in 2024, against versus an EU average of 14.7%. Sweden could achieve greater integration by reducing obstacles and strengthening collaboration.

Sweden's performance in transposing single market directives and handling infringement proceedings is better than the EU average. Sweden's transposition deficit stands at 0.4%, lower than the EU average of 0.8%. This suggests that Sweden has been more efficient in transposing single market directives into its national laws, demonstrating its commitment to EU rules. Sweden's performance is also reflected in the average delay in transposing directives (9 months, less than the EU average of 11.9 months), and the rate of incorrect transpositions (0.8%) which is lower than the EU average (0.9%). In December 2024, Sweden had 19 pending infringement procedures, a significantly lower number compared to the EU average of 24, with a focus on direct taxation and financial services. Nevertheless, the average duration of infringement proceedings for Sweden (51.1 months) is higher than the EU average (45.8 months). In 2024, SOLVIT([58]) Sweden solved 54.1% of the cases it received on problems faced by EU nationals in Sweden, compared to the EU average of 85%. The low-resolution rate is due to recurrent delays and difficulties to obtain residence documents. Without these cases the resolution rate would have been above 80%.

([56]) Recommendations for regulation in professional services. COM(2021) 385 final

([57]) Trade integration. Eurostat

([58]) Single Market scoreboard Sweden

Public procurement

Increased enforcement power for the Swedish Competition Authority (SCA). As of 1 January 2024, the SCA has been vested with greater powers to supervise public procurement. The 2024 reforms aim at enhancing the efficiency of Sweden's public procurement review system by granting the SCA direct power to impose fines without court approval, doubling the maximum fine to EUR 1.8 million and extending the enforcement period from one to two years. These changes could help to ensure faster enforcement and improve compliance and deterrence.

Table A4.1: **Making Business Easier: indicators.**

Sweden							
POLICY AREA	**INDICATOR NAME**	**2020**	**2021**	**2022**	**2023**	**2024**	**EU-27 average**
Investment climate							
Shortages	Material shortage, firms facing constraints, %[1]	10.6	25.3	54.7	35.4	20.7	10.0
	Labour shortage, firms facing constraints, %[1]	3.3	8.4	18.6	14.1	11.3	20.2
	Vacancy rate, vacant posts as a % of all available ones (vacant + occupied)[2]	1.8	2.5	3.2	2.7	2.6	2.3
Infrastructure	Transport infrastructure as an obstacle to investment, % of firms reporting it as a major obstacle[3]	3.6	6.4	9.0	8.0	3.3	13.4
	VHCN coverage, %[4]	-	82.5	81.6	88.5	-	78.8
	FTTP coverage, %[4]	-	82.5	81.5	83.9	-	64.0
	5G coverage, %[4]	-	17.7	20.5	90.3	-	89.3
Reduction of regulatory and administrative barriers							
Regulatory environment	Impact of regulation on long-term investment, % firms reporting business regulation as a major obstacle[3]	7.6	9.2	10.0	9.9	9.1	24.5
Late payments	Payment gap - corporates B2B, difference in days between offered and actual payment[5]	18.6	15.4	12.3	16.0	16.7	15.6
	Payment gap - public sector, difference in days between offered and actual payment[5]	17.7	13.4	13.4	14.9	17.9	15.1
	Share of SMEs experiencing late payments, %*[6] — from public or private entities in the last 6 months	29.2	35.2	31.7	44.5	-	-
	Share of SMEs experiencing late payments, %*[6] — from private entities in the previous or current quarter	-	-	-	-	38.5	47.9
	Share of SMEs experiencing late payments, %*[6] — from public entities in the previous or current quarter	-	-	-	-	13.4	16.6
Single Market							
Integration	EU trade integration, % (Average intra-EU imports + average intra EU exports)/GDP[2]	24.0	25.8	29.9	30.7	30.3	41.6
	EEA Services Trade Restrictiveness Index[7]	0.039	0.039	0.039	0.039	0.045	0.050
Compliance	Transposition deficit, % of all directives not transposed[8]	0.7	2.0	0.7	0.5	0.4	0.8
	Conformity deficit, % of all directives transposed incorrectly[8]	1.6	1.0	1.1	0.8	0.8	0.9
	SOLVIT, % resolution rate per country[8]	62.7	70.6	68.3	69.0	54.1	84.9
	Number of pending infringement proceedings[8]	24.0	18.0	20.0	19.0	19.0	24.4
Public procurement							
Competition and transparency in public procurement	Single bids, % of total contractors**[8]	9	10	13	11	27	-
	Direct awards, %**[8]	0	1	1	1	2	7.0

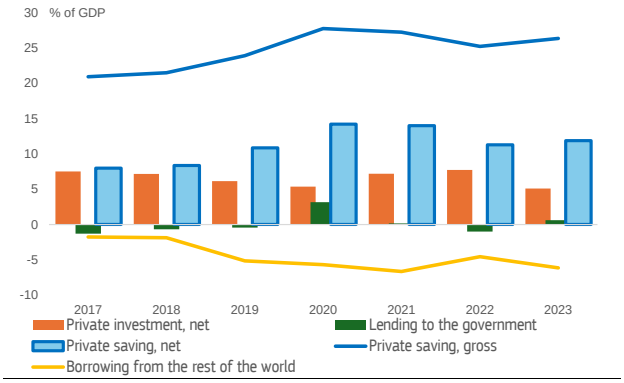
*Change in methodology in 2024: reporting late payments from public and private entities separately.
**The 2024 data on single bids is provisional and subject to revision. Please note that approximately 46% of the total data is currently missing, which may impact the accuracy and completeness of the information. Due to missing data, the EU average of direct awards data is calculated without Romania.
Sources: (1) ECFIN BCS, (2) Eurostat, (3) EIB IS, (4) Digital Decade Country reports, (5) Intrum Payment Report, (6) SAFE survey, (7) OECD, (8) the Single Market and Competitiveness Scoreboard.

The Swedish banking system is large, concentrated and interconnected with the non-bank financial sector, the relative share of which is increasing. The funding of the largest Swedish banks depends on depositors and on wholesale funding both from the domestic and the international capital markets. Loan losses are limited- Although subsiding somewhat, systemic financial risks remain elevated due to high levels of private debt and banks' high exposure residential and commercial real estate. Although banks' strong resilience mitigates risks, macroprudential policies as they stand are appropriate to ensure resilience of the macro-economy. Swedish companies have some of the best access in the EU to diverse and innovative financing sources, not only through bank funding, but also increasingly through equity and bond market funding. Sweden's capital markets are highly integrated with the business sector and play a vital role in raising venture and growth capital and funding to businesses. Swedish capital markets also offer a wide array of investment alternatives to professional and retail investors.

Availability and use of domestic savings

The Swedish economy invests the largest part of its relatively high net savings abroad. In the last decade, the private savings ratio, net of fixed capital consumption, persistently fluctuated around its ten-year average of 10.6% of GDP, reaching a maximum of 14.2% in 2020 (see Graph A5.1). The net private investment ratio, which measures the net contribution of the private sector to capital accumulation in the country, was significantly more volatile, exhibited a ten-year average of 6.6% of GDP and reached a maximum of 7.7% in 2022. At the same time, during the same period the government budget was in regular deficit, averaging 0.2% of GDP. Thus, the high positive balance between net domestic savings and net investment, together with the government deficits, resulted in structural net lending by Sweden to foreigners, averaging 3.9% of GDP, with a peak of 6.6% in 2021. Hence, most of Swedish net savings, i.e. after accounting for the investments that are necessary to merely maintain the existing capital structure of the economy, are used to finance projects abroad.

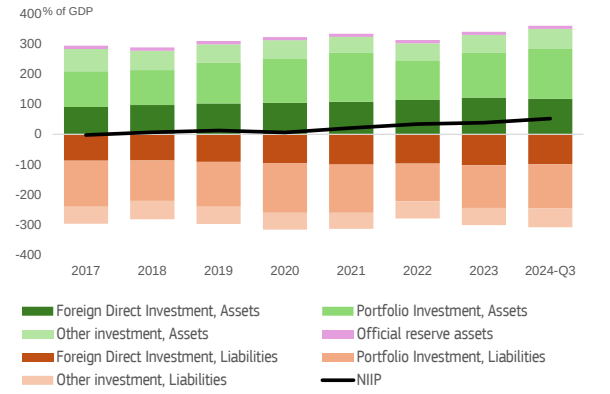
Graph A5.1: **Net savings-investment balance**



Source: AMECO.

Consistent with its position as a net creditor to the rest of the world, the Swedish economy has accumulated significant foreign assets and exhibits a positive net international investment position. As of Q3-2024, total assets on foreigners reached 360% of GDP, while liabilities to foreigners stood at 307% of GDP, resulting in a net international investment position (NIIP) equivalent to 52.4% of GDP (see Graph A5.2). The accumulated portfolio investment and net foreign direct investment, which reached respectively 19.2% of GDP and 18.4% of GDP as of Q3-2024, accounted for most of the NIIP. The net portfolio investments, which are also affected by the price volatility of equity valuations abroad (assets) and in Sweden (liabilities), were negative until 2020, but turned positive afterwards (caused by an increase in equity and investment fund shares and long-term debt securities). Non-bank financial institutions hold the bulk of net foreign assets, while banks and NFCs are the main net external debtors. Sweden's foreign currency assets are almost three times as high as its foreign currency liabilities, providing a hedge against currency valuation changes. Despite being a floating exchange rate regime, it is important to maintain adequate foreign reserves in view of the high dependence of commercial banks on wholesale funding in foreign currency, and potential disruptions in such funding during global financial distress. Although rollovers of external debt (which include banks' covered bonds) pose some vulnerability, risks are moderated by banks' ample liquidity and large capital buffers (see below).

Graph A5.2: **International investment position**



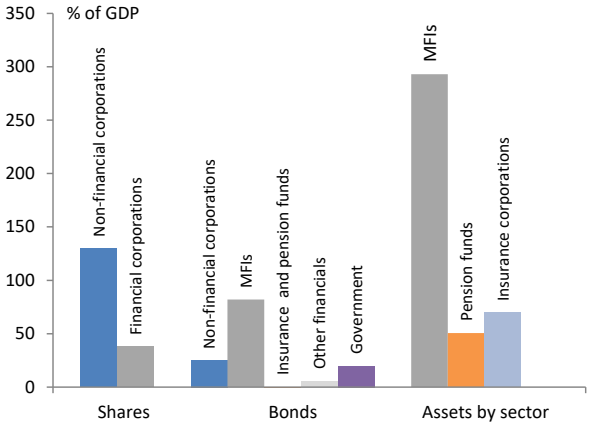
Source: ECB.

Structure of the capital markets and size of the financial sector

Sweden's capital markets rank thirteenth in the world, and are more liquid, mature and deeper than elsewhere in the EU. The Swedish stock market is currently the third largest EU market by capitalisation (equivalent to 179.5% of GDP vs an EU average of 69.3% of GDP as of Q3-2024) and the largest by number of listed companies, with just over 1 000 companies at year-end 2023. The domestic bond market is dominated by the debt of financial institutions, notably through the issuance of covered bonds, but also of other non-covered bonds. The ratio of debt securities issued by financial institutions to GDP is four to five times more than those issued by the government, and almost three times the EU average (66% of GDP), while bonds issued by NFCs equate to 29% of GDP, which is the largest corporate segment in the EU. The number of issuers has increased manifold over the last decade and, in parallel, the average size of both issues and issuers has decreased substantially. Bond financing is now commonplace and an integral part of Swedish companies' financing strategies. Several factors are at interplay to enable this combination of market depth and profitability, resulting in a well-functioning and robust ecosystem.

Sweden stands out as the only EU Member State where capital markets are more than twice as deep today than they were a decade ago. This growth over the last ten years is nearly five times the average growth rate in the EU and has been driven by a large increase in venture capital (VC) and private equity (PE) activity. The buyout market is especially large compared to that of other countries and the size of its economy; this market includes some of the largest and most specialised PE firms in the EU. The development of capital markets has also been helped by strong equity markets. Sweden's market in initial public offerings (IPOs) has been particularly dynamic enabling smaller companies to list. The Swedish equity market is characterised by active trading, also in shares of small and medium-sized enterprises (SMEs), and by broad access for many investor types.

Graph A5.3: **Capital markets and financial intermediaries**



Source: ECB, EIOPA, AMECO.

Non-bank financial intermediation is growing and managing assets to an amount almost as large as that of the entire Swedish banking sector. Banks dominate the financial system, yet their relative share is declining as the non-bank financial sector – including pension funds, mutual funds and insurance companies – is growing. After peaking at 313% of GDP in 2020, the size of the banking sector declined to 290% of GDP in Q3-2024 which remains however significantly above the EU average of 248.4% and places the Swedish banking sector among the biggest in size in the EU. Foreign presence is limited and accounts for about 7% in terms of assets. Banking concentration appears to be somewhat higher than on average in the EU, with the top five MFIs representing about 75% the sector as of end-2023. i.e. the three major Swedish banks -Svenska Handelsbanken, SEB, and Swedbank-, as well as the two systemically important branches – Nordea and Danske Bank's Swedish branches and mortgage companies. Interbank exposures across the five largest banks

in Sweden are small thus posing limited direct contagion effects. Contagion across banks and other financial institutions due to similarities in portfolio holdings appear more prominent yet not easily quantifiable due to data constraints. The insurance sector is relatively large with an assets-to-GDP ratio of around 74% compared to an EU average of around 54.8% (Table A5.1). According to data from Riksank, total assets of the pension funds sector equate to roughly 100% of Swedish GDP, and the Swedish investment fund sector would come close to that as it has almost quadrupled in size since 2012.

Resilience of the banking sector

Sweden's banking sector remains resilient, with most performance indicators among the best across the EU. The sector's resilience is bolstered by strong capitalisation and asset-quality metrics, with a capital adequacy ratio of 22.6% in Q3-2024, above the EU average of 20.1% (see Table A5.1). This ratio comes with a good level of high-quality loss-absorption capital, as the CET1 ratio amounted to 19.3% in Q3-2024, well above the EU average of 16.6%. The relatively high capital adequacy ratios are partly explained by the use of internal ratings-based models, which do not always properly reflect credit risk and therefore warrant close monitoring by the authorities as bank own funds are relatively low. The liquidity coverage ratio amounted to 158.6% in Q3-2024, according to the EBA Risk Dashboard, which is just below the EU average, but exceeding the regulatory minima.

In recent years, profitability has been relatively high from an historical perspective. The return on equity (ROE) reached 12.9% at the end of Q3-2024 (EU average of 10%). This has primarily been due to rising net-interest income. The beneficial conditions for the major banks are also reflected in improved valuations of their shares. The non-performing loans ratio is among the lowest in the EU (1%) but hides disparities: in contrast to the major banks, consumer credit banks have experienced increasing loan losses in recent years, which has contributed to their relatively low profitability. Although the increase has moderated somewhat, the level of loan losses is still higher than that of the major banks partly because the majority of their lending is unsecured and partly because they target a different customer segment.

The Swedish banks have a high dependence on market funding. With 178.5% at the end of Q3-2024, the loan-to-deposit ratio remained the second highest in the EU -after Denmark- and indicates the dependence of market funding. As banks take the covered bonds as collateral for the loans, the share of covered bonds in banks' portfolios of liquid assets is rising. Non-banks, such as pension funds and insurance companies have thus become increasingly important funders of Swedish banks, which increases the interconnectedness in the financial system. Moreover, if non-banks own a large share of the covered bonds, there is also a risk that market funding will become more volatile as shocks may be amplified. Deposits are also an important source of funding for Swedish banks, however less so for major banks than for consumer credit banks. Since mid-2022, deposits from households and non-financial corporations have gone down slightly, a trend that will probably continue. This means that the share of market financing –such as certificates, covered bonds, and unsecured bonds– may further increase, which could put pressure on banks' profitability since market funding typically is more expensive than deposits.

Loan losses are small and, although subsiding, systemic financial risks remain elevated. Banks have large exposures to both households and commercial real estate companies, which remain highly leveraged and pose a risk. This risk is further amplified by the high sensitivity to interest rate shocks of households and corporates owing to their high indebtedness. With over half of the corporate loan book, the largest share of the major banks' exposures is to the commercial real estate sector, which since 2022 has faced challenges linked to their financing situation and ability to pay higher interest costs. To date, the commercial real estate sector only represents 3% of commercial bankruptcies, but the sector is still facing uncertain conditions, although the financial conditions have become more favourable. This is particularly evident in the corporate bond market, where commercial real estate companies have accounted for half of the total issuances. The Swedish banking sector is also vulnerable to risks coming from the high levels of household debt and the overvaluation of real estate. In Sweden, house prices are closely linked to bank funding. This is

because banks finance some of their mortgages by issuing covered bonds backed by mortgages. Long-term covered bonds provide a substantial part of the financing structure of the banks, and so the rise in interest rates is also transmitted into the interest rates on long-term housing loans. This increases the loan servicing costs of households. Given low coverage ratios (18% at the end of 2023, vs. 42.1% for the EU on average) banks' loss absorption could be challenging if a scenario of widespread defaults materialises.

Against this backdrop, macroprudential policies adopted by the Swedish financial supervisor are appropriate and should remain in place until risks materially subside. the Minimum Requirement for own funds and Eligible Liabilities (MREL) has been phased in by Swedish banks by 1 January 2024. Risk weight floors have been set at 25% for mortgage exposures and corporate exposures secured by residential real estate (RRE) and 35% for commercial real estate (CRE). The measure is effective from 30 September 2023 and has been extended to 2027. Moreover, systemic risk has been addressed by increasing the countercyclical capital buffer to 1% effective from 29 September 2022, and to 2% effective from 22 June 2023 Overall, these macroprudential measures are appropriate and strengthen the resilience of the financial system as a whole. Other measures aimed at counteracting financial imbalances, such as the borrower-based-measures that more directly affect households' ability to borrow, have also proven to be effective.

Resilience of the non-bank financial intermediaries

Swedish insurance companies are interconnected with banks and particularly sensitive to equity price falls. Swedish insurance companies mainly invest in Swedish and foreign equities, but also investment funds, debt securities and real property. The debt securities purchased by insurance companies are mainly bonds issued by foreign borrowers, but also Swedish government bonds and bonds issued by Swedish banks and mortgage institutions. Foreign investments are hedged to a large extent in order to manage the exchange rate risk. Insurance companies are mainly exposed to the United States ([59]). The proportion of life insurance companies' portfolios invested in risky assets, such as equities and funds, is high compared to European equivalents, representing 58% of total investment assets. Non-life insurance companies typically invest in assets of shorter duration than the life insurance companies' investments. The reason is that non-life insurance companies need to manage ongoing claims payments every year.

Solvency in the non-bank financial sector is stable, but risks arise from high complexity and interconnectedness with the investment fund sector, which has a structural liquidity mismatch. Insurance companies and pension funds currently own more than half of the shares in investment funds, and this also represents more than half of their own assets. The increased share of investment funds among the insurance and pension sector's assets is a result of the transition from traditional insurance policies to the unit-linked and custodial insurance policies that these companies offer their customers([60]), corresponding to just over 40% of their total assets – one of the highest shares in the EU. The Riksbank has repeatedly highlighted the problem of rapid redemptions from funds that invest in less liquid assets, particularly corporate bond funds. This creates a significant liquidity mismatch between the fund's assets and liabilities, a mismatch that is also larger than that of other financial agents. These funds then become vulnerable to sudden and large redemptions from their unit holders. In a stressed situation, there is therefore a risk that the funds will amplify already high selling pressure in the markets for the funds' assets, such as the corporate bond market. Work is ongoing to transpose EU directives to manage liquidity risks at investment funds.

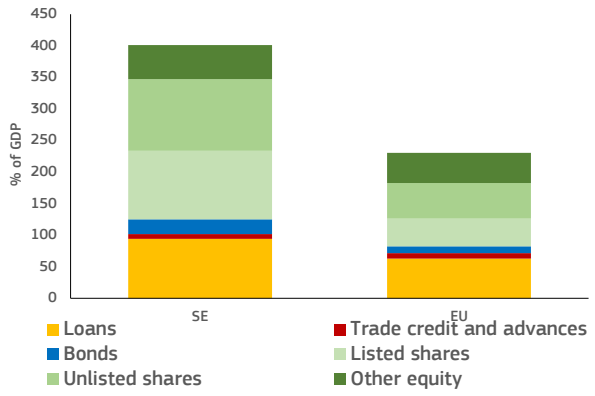
([59]) Riksbank, 2022.

([60]) Whereas in traditional insurance, the life insurance or occupational pension company chooses how to manage the capital and bears the financial risk, with unit-linked and custodial insurance, customers can choose the funds or other securities in which to invest their savings from a selection made by the company.

Sources of business funding and the role of banks

Firms in Sweden rely heavily on funding from capital markets. More specifically, at the end of 2023, listed shares and bonds represented 33% of all funding sources for Swedish non-financial corporations (NFCs), vs an EU average of 23.8%, while bank finance through loans constituted 23% of funding sources, less than the EU average of 27.2%. Over 2020-2023, the three-year average of NFC bond and equity issuance as a percentage of total NFC financing was the second highest in the EU after Malta ([61]) (AFME, 2023). Nevertheless, when loans to NFCs are expressed as a percentage of GDP, banks in Sweden are a stronger lender to NFCs as compared to the EA average, at 48.1% of GDP for Sweden vs 34% for the EA. The overall levels of NFC funding are also substantially higher when expressed as a percentage of GDP, with 401% for Sweden and 230.3% for the EU average (see Graph A5.4).

Graph A5.4: **Composition of NFC funding as % of GDP**



The sum of NFC liabilities only reflects the total for the NFC liabilities considered. Reference period 2023.
Source: Eurostat and FISMA E2 calculations.

Swedish businesses depend more on internal or intra-group financing than their European peers. According to the 2024 EIB Investment Survey, only 15% of Swedish firms' investment needs are covered by external funding, compared to an EU average of 25%. Sweden exhibits the lowest reliance on external finance for investment: only 26% of all firms use it, vs an EU average of 42%. At the same time, only 75% of Swedish firms believed that their investment activities over the last three years were about the right amount, less than the EU average (80%), while 21% believed that they were too little (vs an EU average of 14%).

As interest rates gradually fall, timid signs of recovery in credit demand and credit growth are appearing. Credit growth for NFCs has been very volatile and was negative from June 2024 on. However, as policy rates gradually decline, there are some signs of a recovery, which is expected to continue in 2025. For households, the annual credit growth rate for adjusted loans went into negative territory, practically for all of 2023. Household lending, largely consisting of housing loans, constitutes the main part of the loan book of Swedish banks and is almost twice the EU average. Loans to households as a percentage of GDP were 78.2% at the beginning of 2024 (February) (vs 44.2% for the EA on average). Three quarters of the financial institutions' lending portfolio is linked to the real estate market through mortgages and commercial real estate companies.

Capital markets and the participation of retail investors

Sweden leads the rest of the EU in terms of SME equity financing. In the 2023 SAFE survey, 45% of SMEs indicated that they used equity, compared to an EU average of 10.1% ([62]). Sweden has a high number of publicly listed small companies, second only to Finland in terms of capital raised as a percentage of GDP. According to reports of the European Securities and Markets Authority, Sweden alone accounts for more than 40% of EU SME trading volumes with UK pre-Brexit trading volumes included. Supporting factors that facilitate the listing process include a strong start-up ecosystem, supportive regulation and retail-investor participation. Sweden also consistently ranks first in the EU for number of IPOs.

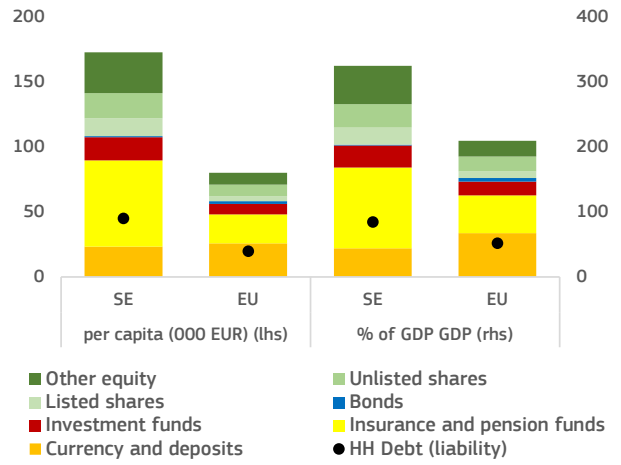
Sweden's households' savings are invested mainly in insurance and pension funds. The

([61]) AFME CMU Key Performance Indicators, November 2023

([62]) Data and surveys - SAFE - European Commission, 2023, Results by country, T27.

saving rate of Swedish households was around 17% in 2023, which is one of the highest rates in the EU. Swedish households' financial assets were equivalent to 322% of GDP in 2023, higher than the EU average of 209% of GDP. The largest component of these assets consists of collective savings, namely premium and occupational pensions, which households cannot take hold of in the short term. Insurance savings in Sweden are also high from an international perspective. Together, they account for 38.3% (vs an EU average of 27.8%). Another significant share (17%) consists of 'other equity', covering all forms of equity other than listed and unlisted shares (Graph A5.5). In addition to indirect ownership through funds, households own just over one tenth of the outstanding volume in listed equities. At the same time, foreign investors own almost 40% of Swedish listed equities.

Graph A5.5: **Composition of household financial assets per capita and as % of GDP**



The sum of household assets only reflects the total for the household assets considered. Reference period 2023.
Source: Eurostat and FISMA E2 calculations.

Measures to scale up retail investment combined with more structural reforms of pensions and retirement savings have mutually nurtured one another. Within the EU, the highest levels of retail financial assets are held in Denmark (198% of GDP), Sweden (179%), and the Netherlands (173%) ([63]). Sweden's high level of household participation in equity markets can be attributed not only to its mature capital market, but also to its distinctive investment culture, fostered by forward-thinking policies, including its pension system. The 'premium pension' scheme, a mandatory defined contribution system, plays a significant role in this regard, allowing pension holders to invest 2.5% of their pensionable income in a mandatory savings account, administered by the Swedish Pensions Agency, on an annual basis. Furthermore, a saving and investment account with favoured tax status was introduced in 2012. Holders of these accounts do not have to report their holdings in these accounts or pay tax on capital gains made from investments held in these accounts. Instead, these accounts are taxed annually at an imputed rate corresponding to the government borrowing rate plus 1%. These policies have contributed to a unique culture of high financial literacy and stock market engagement, as well as to the vast domestic equity holdings of Sweden's four largest pension funds, which provide confidence to businesses considering whether to list.

The role of domestic institutional investors

Insurance companies and pension funds have large equity portfolios geared towards debt securities and real estate. Insurance companies and pension funds now own more than half of the shares in investment funds, and this also represents more than half of their own assets (vs EU average of 27%). Debt securities purchased by insurance companies are mainly bonds issued by foreign borrowers, but also government bonds (mostly domestic) and bonds issued by Swedish banks and mortgage institutions. They also increasingly invest in corporate bonds (on average around 12% of their assets). Swedish banks depend on domestic non-bank financial institutions for their mortgage funding via covered bonds, held in diversified portfolios by foreign parties, Swedish investment funds and insurance companies and pension funds. The share of the amount of covered bonds relative to bank loans reached 32% in Sweden in [...], only exceeded by Denmark with a ratio of 85% (vs EU average of 18%).

The participation of domestic institutional investors in providing funding for start-ups and VC investors is the highest in the EU. On average, pension funds in Sweden accounted for

([63]) AFME CMU Key Performance Indicators, 7th Edition, November 2024

30% of PE and VC funds raised annually over 2007-2023, the highest in the EU ([64]). Data provided by the Swedish Private Equity and Venture Capital Association indicate that (however not exclusively) Swedish pension funds and insurance companies together provide 39% of all PE capital([65]). Sweden therefore has a lot of institutional owners and active ownership is outsourced to PE.

The depth of venture and growth capital

The Swedish private equity market is the largest and most developed in the EU, compared to the size of the economy. It is also one of the few net exporters of PE flows in Europe. According to the capital markets union (CMU) dashboard, PE investments in Sweden equated to 1.2% of GDP on average annually over 2021-2023 (vs an EU average of 0.7%), partly steered by government measures (see Annex Innovation to Business). Sweden has the lowest share of domestic investments made by foreign firms (only 32.4% of total domestic investment) but a high share of foreign investment made by domestic firms. Only Sweden and Denmark exceed the EU average (33%) for total PE investment made by domestic firms.

Sweden is a leading fintech hub, attracting significant VC investments and numerous innovative start-ups. According to the CMU Dashboard, Sweden is among the best performers in the EU in annual VC investments relative to GDP, with 0.14% on average annually over 2021-2023, (vs an EU average of 0.08% over the same period). Swedish fintech firms mostly operate in payments, credit provision and infrastructure, and other business models are hard to label. Many fintech companies offer payment and money transfer services and are starting to compete with banks in niche segments. The payments segment is currently the largest of the Swedish fintech segments, with a broad range of both start-ups and mature fintech businesses.

([64]) Source: Closing the gaping hole in the capital market for EU start-ups – the role of pension funds – CEPS.

([65]) SVCA, 2024.

Financing the green transition

The EU is a global leader in sustainable finance, and Sweden leads the way with 27.5% of total bond issuance having environmental, social and governance labelling ([66]). Sweden is a pioneer in green bonds, and the market has grown fast. Sweden issued its first sovereign green bond in 2020. The supranational Nordic Investment Bank (NIB) and the Norwegian state bank KBN Kommunalkredit were among the very first to start issuing green bonds, both debuting in 2010. Several important green bond firsts have come from the region: the first green city bond (Gothenburg), the first corporate green bond, the first green bond from a real estate company (Vasakronan), and the first labelled green medium-term note corporate bond programme (Fabege).

Financial literacy

The level of financial literacy in Sweden is high. Organisations such as Aktiespararna begin financial education early, teaching children the benefits of stock ownership. The 2023 Eurobarometer survey ([67]) shows that 27% of Swedes have a high level of financial literacy, 59% a medium level, and the remaining 14% a low level, compared to an EU average of 18% for high literacy, 64% for medium, and 18% for low. This leads to an overall financial literacy indicator of 53.5 vs an EU average score of 45.5.

([66]) AFME CMU Key Performance Indicators, 7th Edition, November 2024

([67]) Source: Monitoring the level of financial literacy in the EU - July 2023 - Eurobarometer survey.

Table A5.1: **Financial indicators**

		2017	2018	2019	2020	2021	2022	2023	2024-Q3	EU
Banking sector	Total assets of MFIs (% of GDP)	292.2	274.9	280.0	312.9	278.2	294.7	293.0	290.3	248.4
	Common Equity Tier 1 ratio	20.7	17.0	17.7	19.2	19.2	18.9	19.0	19.3	16.6
	Total capital adequacy ratio	25.9	20.7	21.6	22.3	22.2	22.0	22.2	22.6	20.1
	Overall NPL ratio (% of all loans)	1.3	1.0	1.1	1.0	1.0	0.8	1.0	1.0	1.9
	NPL (% loans to NFC-Non financial corporations)	1.8	0.9	1.1	1.0	0.6	0.4	0.5	0.6	3.5
	NPL (% loans to HH-Households)	1.2	1.4	1.5	1.4	1.7	1.5	1.8	2.0	2.2
	NPL-Non performing loans coverage ratio	26.4	22.2	25.8	29.1	29.0	22.8	20.1	18.0	42.1
	Return on Equity[1]	10.9	12.2	10.9	8.4	10.0	9.8	13.1	12.9	10.0
	Loans to NFCs (% of GDP)	45.9	47.9	47.1	50.2	46.9	47.8	49.1	46.6	30.0
	Loans to HHs (% of GDP)	81.2	83.6	84.7	92.3	85.7	79.9	81.8	78.5	44.5
	NFC credit annual % growth	5.7	6.1	3.6	4.0	7.0	12.0	1.8	-0.5	0.8
	HH credit annual % growth	7.0	5.5	5.1	5.6	6.8	-0.5	-0.1	1.1	0.7
Non-banks sector	Stock market capitalisation (% of GDP)	-	-	-	182.1	222.2	141.6	168.3	179.5	69.3
	Initial public offerings (% of GDP)	2.01	0.25	2.08	1.28	6.23	0.10	0.00	-	0.05
	Market funding ratio	62.2	62.2	63.5	63.3	63.3	61.9	62.3	-	49.6
	Private equity (% of GDP)	0.59	0.67	0.90	0.85	1.36	1.30	0.84	-	0.41
	Venture capital (% of GDP)	0.05	0.08	0.07	0.12	0.19	0.16	0.07	-	0.05
	Financial literacy (composite)	-	-	-	-	-	-	53.5	-	45.5
	Bonds (as % of HH financial assets)	1.4	1.0	0.7	0.6	0.4	0.5	0.5	-	2.7
	Listed shares (as % of HH financial assets)	7.2	6.7	7.4	8.1	9.5	7.8	8.0	-	4.8
	Investment funds (as % of HH financial assets)	9.4	9.0	9.8	9.7	10.2	9.6	10.3	-	10.0
	Insurance/pension funds (as % of HH financial assets)	37.2	37.5	37.7	36.7	36.4	37.0	38.3	-	27.8
	Total assets of all insurers (% of GDP)	64.9	63.2	70.7	77.7	82.1	59.2	69.7	73.6	54.8
	Pension funds assets (% of GDP)	-	-	-	-	-	-	-	-	23.4

1-3	4-10	11-17	18-24	25-27	Colours indicate performance ranking among 27 EU Member States.

[1] Annualized data.

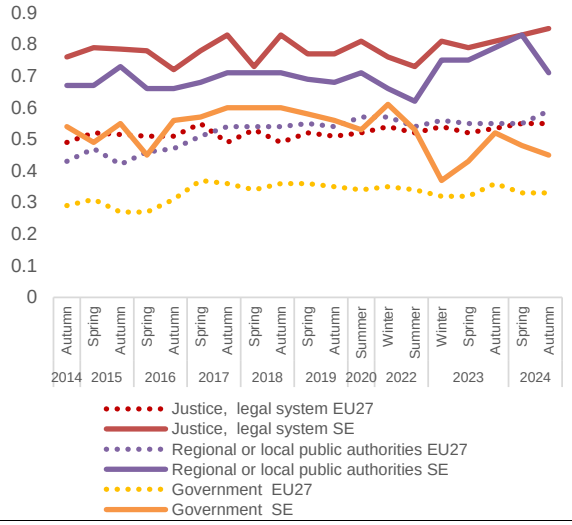
Credit growth and pension funds EU data refers to the EA average.

Source: ECB, ESTAT, EIOPA, DG FISMA CMU Dashboard, AMECO.

Sweden's institutional framework influences its competitiveness. Trust in public institutions in Sweden is high. More digitalisation – creating a public eID and increasing access to electronic health records – could further improve the country's performance in digital public services. There is also room to strengthen regulatory practices. The justice system performs efficiently overall.

Public perceptions

Graph A6.1: **Trust in justice, regional / local authorities and in government**



(1) EU-27 from 2019; EU-28 before
Source: Standard Eurobarometer surveys

Sweden continues to enjoy high trust in its institutions. (Graph A6.1) Trust is strongest in justice institutions, with local government following in second place. Trust in central government has partly recovered after the decrease in 2022, although it has still not returned to pre-Covid levels. When asked about improvements that can increase trust in the public administration, 50% of citizens pointed to more transparency in decision-making and use of public funds (EU: 44%) ([68]). The perceived quality of government remains stable and visibly above the EU average ([69]). Against this backdrop, Sweden's main reform priorities for the past year included strengthening internal security, addressing potential corruption and unauthorised influence of public officials as well as digital security. However, progress on implementing the national recovery and resilience plan remains slow, with the first payment request submitted in December 2024.

Quality of legislation and regulatory simplification

Performance in developing and evaluating legislation is below the EU average and has remained broadly unchanged since 2021. Practices in regulatory tools like ex ante impact assessment, ex post evaluation of legislation and public consultation are broadly comparable for primary and subordinate regulations. However, performance for stakeholder engagement and ex-ante impact assessments is stronger than for ex post evaluation of legislation, though still weaker than in the EU average (Graph A6.2). The established practice of 'white papers' and public inquiries frequently lead to proposals for new or revised laws. In 2024 the government introduced new rules for the preliminary impact assessment for draft laws. The aim is to enable agencies, committees and chairs of inquiries to develop cost-effective and socio-economically justified proposals. Overall, there is room to strengthen the systematic adoption, transparency, oversight and quality control of public consultations and ex post evaluations of legislation, as well as the transparency requirements for primary and secondary regulations' impact assessments (Graph A6.2).

Sweden is taking measures for administrative simplification. A 'simplification council', set up in 2024, will explore ways to reduce administrative burden for small and medium-sized enterprises ([70]). In addition, County Administrative Boards have been tasked with ensuring more efficient contacts with government agencies ([71]). However, there is scope for Sweden

([68]) Understanding Europeans' views on reform needs - April 2023 - - Eurobarometer survey, Country Fact Sheet.

([69]) Inforegio – European Quality of Government Index

([70]) Regeringen (2024), https://www.regeringen.se/pressmeddelanden/2024/04/nytt-forenklingsrad-ska-minska-foretagens-regelborda

([71]) Regeringen (2024), https://www.regeringen.se/pressmeddelanden/2024/03/uppdrag-till-lansstyrelserna-att-forenkla-for-foretag-genom-battre-myndighetskontakter

Table A6.1: **Sweden. Selected indicators on administrative burden reduction and simplification**

	Ex ante impact assessment of legislation		Ex post evaluation of legislation	
When developing new legislation, regulators are required to …	Identify and assess the impacts of the baseline or 'do nothing' option.	◑	Is required to consider the consistency of regulations and address areas of duplication.	○
	Identify and assess the impacts of alternative non-regulatory options.	●	Is required to contain an assessment of administrative burdens.	●
	Quantify administrative burdens of new regulations.	●	Is required to contain an assessment of substantive compliance costs.	○
	Quantify substantial costs of compliance of new regulations.	●	Compares the impact of the existing regulation to alternative options.	●
	Assess macroeconomic costs of new regulations.	●	Periodic ex post evaluation of existing regulations is mandatory.	○
	Assess the level of compliance.	○	Government uses stock-flow linkage rules when introducing new regulations (e.g., one-in one-out).	◑
	Identify and assess potential enforcement mechanisms.	○	A standing body has published an in-depth review of specific regulatory areas in the last 3 years.	○
			In the last 5 years, public stocktakes have invited businesses and citizens to assess the effectiveness, efficiency, and burdens of legislation.	○

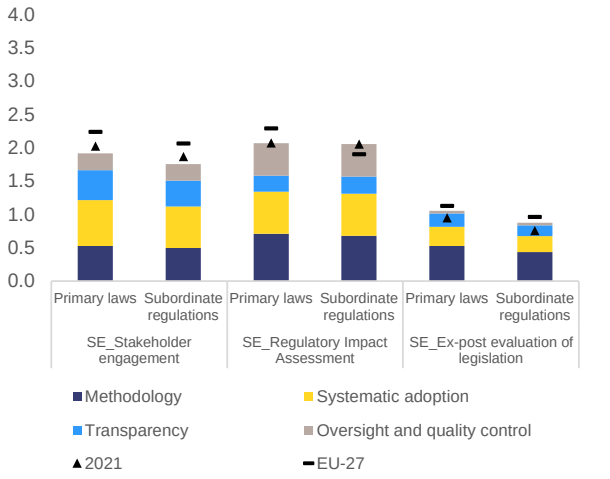
● Yes / For all primary laws ◕ For major primary laws ◑ For some primary laws ○ No / Never

(1) This table presents a subset of iREG indicators focusing on regulatory costs. The indicators refer to primary legislation.
Source: OECD (2025), Regulatory Policy Outlook 2025 [https://doi.org/10.1787/56b60e39-en] and Better Regulation across the European Union 2025 (forthcoming).

to further strengthen the mechanisms for simplifying regulation and identifying administrative burdens. For example, ex post evaluations of primary legislation are not required to contain an assessment of administrative burdens and of substantive compliance costs. Moreover, periodic ex post evaluation of existing regulations is not mandatory (table A6.1).

The OECD product market regulation indicator shows that that Sweden's licensing system is slightly more burdensome than the EU average. There is room to further align it with best practices. While the government keeps an up-to-date inventory of all the permits and licences required/issued to businesses by public bodies, there is no requirement for the government to regularly review it and assess whether such licences and permits are still required or should be withdrawn. Moreover, there is no requirement for public bodies at central level to observe the once-only principle (see also Annex 4).

Graph A6.2: **Indicators of Regulatory Policy and Governance (iREG)**



Source: OECD (2025), Regulatory Policy Outlook 2025 and Better Regulation across the European Union 2025 (forthcoming).

Social Dialogue

Sweden's long-standing tradition of tripartite bargaining supports a robust social dialogue model. Currently, over 650 collective agreements cover approximately 90% of the Swedish labour force, among the highest coverage

Table A6.2: **Digital Decade targets monitored by the Digital Economy and Society Index**

		Sweden			EU-27	Digital Decade target by 2030
		2022	2023	2024	2024	EU-27
Digitalisation of public services						
1	**Digital public services for citizens**	**85**	**88**	**93**	**79**	**100**
	Score (0 to 100)	2021	2022	2023	2023	2030
2	**Digital public services for businesses**	**88**	**88**	**96**	**85**	**100**
	Score (0 to 100)	2021	2022	2023	2023	2030
3	**Access to e-health records**	**na**	**70**	**78**	**79**	**100**
	Score (0 to 100)	2021	2022	2023	2023	2030

Source: State of the Digital Decade report 2024

rates in the EU([72]) . The state plays a limited role, primarily providing the legislative framework for collective agreements and industrial actions and facilitating negotiations, ensuring the independence of the social partners. Sweden's social dialogue model is considered as highly effective, offering strong labour protection, regular state consultations with social partners, and one of Europe's lowest levels of labour conflict, broadly supported by unions, employers, and the state. Since 2000, the Swedish National Mediation Office (SNMO) has promoted efficient wage formation, mediated labour disputes, and provided public wage statistics to uphold this model. The SNMO can appoint mediators when industrial action is threatened or at the request of negotiating parties, as well as special mediators in disputes over wages and employment terms ([73]).

Digital public services

Sweden performs well in providing online public services for citizens and businesses, ranking above the EU-27 average (Table A4.2). Sweden also consistently ranks above the EU-27 average for online interaction with public authorities. However, online access to electronic health records lags behind the EU-27 average. This gap is forecast to widen further ([74]).

In Sweden, eID is delivered by private providers. In 2023, the government explored options for creating a public digital identity scheme, ensuring a high level of trust and cost-efficiency ([75]). A government committee ([76]) has suggested that the Swedish Companies Registration Office should issue eID schemes for legal person as mandated by article 3 a (1) in the regulation (EU) No 910/2014 as regards establishing the European Digital Identity Framework. The Swedish Companies Registration Office has then been given a budget to begin this work in 2025.

Sweden is advancing towards seamless, automated exchange of authentic documents and data across the EU. It has developed the necessary infrastructure and is beginning the process of connecting up the first authorities to the Once-Only Technical System ([77]).

Sweden is continuing to explore ways of using artificial intelligence (AI). In December

([72]) Swedish Mediation Office, 2023, https://www.mi.se/forhandling-avtal/kollektivavtalstackning-och-organisationsgrad/.

([73]) For an analysis of the involvement of Sweden's social partners at national level in the European Semester and the Recovery and Resilience Facility, see Eurofound (2025), National-level social governance of the European Semester and the Recovery and Resilience Facility.

([74]) https://digital-strategy.ec.europa.eu/en/factpages/sweden-2024-digital-decade-country-report#:~:text=Sweden's%20performance%20towards%20the%20Digital,the%20work%20on%20e%2DID.

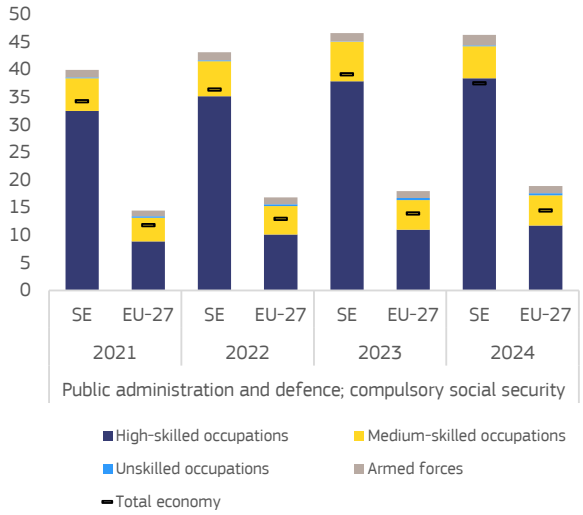
([75]) https://www.regeringen.se/rattsliga-dokument/statens-offentliga-utredningar/2023/10/sou-20236

([76]) Kompletterande bestämmelser till EU:s reviderade förordning om elektronisk identifiering - Regeringen.se

([77]) European Commission, Once-Only Technical System Acceleratormeter

2023, it set up an AI Commission to set priorities for the use of AI, including to enhance the public administration's efficiency. The Commission presented its proposals in February 2025 ([78]).

Graph A6.3: **Participation rate of 25-64 year olds in adult learning (%) by occupation**



Source: European Commission, based on the Labour Force Survey

Civil service

The capacity of the civil service is high. In 2024, approximately half of public administration employees participated in education and training, giving Sweden the highest participation rate in the EU (Graph A6.3). Since 2023, all new employees of the central administration can participate in an introductory, voluntary, fully digital course that covers topics such as democracy, legality, objectivity, freedom of speech, respect and efficiency.

Sweden's civil service is younger than that of the EU-27 average. The share of civil servants below 39 has increased by more than the EU average over the past four years ([79]). The share of women in senior administrative positions is above the EU-27 average ([80]).

([78]) AI-kommissionens Färdplan för Sverige

([79]) Eurostat. Labour Force Survey. Employment by sex, age and economic activity.

([80]) European Institute for Gender Equality, 2024.

Integrity

A lower proportion of businesses than the EU average consider corruption to be a problem, and anti-corruption services cooperate well. In Sweden, 42% of companies consider that corruption is widespread (EU average 64%) and only 13% consider that corruption is a problem when doing business (EU average 36%) ([81]). Moreover, 43% of companies believe that people and businesses caught for bribing a senior official are appropriately punished (EU average 31%) ([82]). Law enforcement agencies responsible for investigating and prosecuting corruption cooperate well, have an appropriate level of resources and continue to present results ([83]). The authorities collaborate well with international counterparts to investigate and prosecute foreign bribery. However, as in past years, the few notable high-profile foreign bribery cases did not result in convictions, mostly due to legal limitations and difficulties in gathering the necessary evidence. This has attracted criticism from the OECD Working Group on Bribery ([84]). Furthermore, public procurement remains one of the main corruption risk areas in Sweden ([85]). 27% of companies (EU average 27%) think that corruption has prevented them from winning a public tender or a public procurement contract in practice in the last three years ([86]). Municipalities and regions and the construction sector are among the sectors at a high-risk of corruption ([87]). The government has initiated an anti-corruption action plan to address potential corruption and unauthorised influence over public officials ([88]).

Whereas Most Member States have implemented a public register for lobbyists,

([81]) Flash Eurobarometer 543 on businesses' attitudes towards corruption in the EU (2024).

([82]) Ibid.

([83]) See the 2024 country-specific chapter for Sweden of the Rule of Law Report, pp. 14-15

([84]) Ibid., p. 14.

([85]) Ibid., p. 19.

([86]) Flash Eurobarometer 543 on businesses' attitudes towards corruption in the EU (2024).

([87]) See the 2024 country-specific chapter for Sweden of the Rule of Law Report, p. 19.

([88]) Ibid., pp. 12-13.

Sweden has not. There still are no rules on how to engage with lobbyists or on disclosure of lobbying contacts. An all-party inquiry committee reviewing rules on transparency in the financing of political parties has been mandated to consider whether there is a need to strengthen transparency regarding contacts between political decision-makers and lobbyists ([89]).

Justice

The justice system performs efficiently overall. The time needed to resolve administrative cases at first instance in 2023 was comparatively low among Member States at 83 days (compared to 107 in 2022). The clearance rate is stable for civil and commercial litigious cases (at 102% in 2022 and 97% in 2023) and for administrative cases (at 103% in 2022, and 105% in 2023). At the same time, the estimated time needed to resolve civil, commercial, administrative and other cases at first instance fell from 123 days in 2022 to 108 days in 2023. The quality of the justice system is good. The level of digitalisation is overall very good. In particular, digital tools are widely used in courts, including an electronic case management system, technology for distance communication and a secure remote work environment for judges and staff. As regards judicial independence, no systemic deficiencies have been reported ([90]).

([89]) See the 2024 country-specific chapter for Sweden of the Rule of Law Report, p. 17.

([90]) For more detailed analysis of the performance of the justice system in Sweden, see the upcoming 2025 EU Justice Scoreboard and2024 Rule of Law Report.

Sweden faces significant challenges regarding its clean industry transition and climate mitigation: While Sweden is a leading exporter of net zero technologies, it struggles with limited manufacturing capacity for solar PV and wind components, and a dependency on non-EU countries for these resources. The country's emission reduction efforts are hampered by slowed progress in the decarbonization of the transport sector, exacerbated by policy changes that have increased fuel consumption and reduced incentives for electric vehicles. In the realm of sustainable industry, Sweden's circular material use rate is below the EU average, and there are pressing needs for investment in circular economy initiatives and improvements in waste management. This annex reviews the areas in need of urgent attention in Sweden's clean industry transition and climate mitigation, looking at different dimensions.

Strategic autonomy and technology for the green transition

Net zero industry

Sweden is a significant global manufacturer of net zero technologies([91]). In the battery sector, manufacturing capacity used to amount to between 15.5 and 16 GWh/y (7% of total EU capacity) for battery and storage technologies. Nevertheless, the Northvolt bankruptcy reveals EU challenges in this sector. Moreover, it has at least 13 factories that specialise in the manufacturing of heat pumps and counts amongst the EU's top export performer in heat pumps. Metacon, a key European producer of electrolysers is also based in Sweden.

Sweden has established itself as a competitive exporter of components across various Net-Zero technologies, including grid, heat pump, geothermal, wind turbine, and sustainable biogas technologies. Sweden's exports in heat pump technologies were EUR 1.8 billion. In the grid technologies sector, Sweden is competitive in exporting insulated electric conductors and devices for protecting electrical circuits.

The country is actively participating in EU IPCEIs on hydrogen and batteries supporting the development and deployment of clean technologies and increasing innovation and competitiveness, while contributing to a low-carbon and more competitive economy. However, with a manufacturing capacity ranging between 120 and 250 MW/y([92]) (1% of EU capacity) for photovoltaic (solar PV) modules and up to 25 MW/y (a negligible share of total EU capacity) for wind power, Sweden is dependent on non-EU countries for solar PV and wind components[2]. To tackle this challenge, innovative solar PV manufacturing projects have received support from the EU's Innovation Fund. Sweden's manufacturing capacity for modules and cells of solar PV is expected to increase in the coming years.

Limited availability of skilled workers in science, technology and engineering is a bottleneck for investment. While Sweden excels in innovation and research, the limited availability of skilled workers in science, technology and engineering could affect investment and slow down innovation in net zero technologies. However, the country's upskilling and reskilling efforts could help mitigate this issue([93]).

The Swedish policy framework supporting the scale-up of net zero technology manufacturing is well developed but would benefit from a more comprehensive approach Sweden's Climate Action Plan (2023) includes around 70 action points, such as incentives for CCS and the development of a sustainable and competitive battery value chain in both Sweden and Europe. The government supports the creation of good conditions for vehicle manufacturers' key investments/establishments, through coordinated efforts by Business Sweden (2023-2025), especially for the development and production of

([91]) European Commission: Directorate-General for Energy. 2025. *The net-zero manufacturing industry landscape across the Member States 2025*, The net-zero manufacturing industry landscape across-MJ0125008ENN..pdf

([92]) Megawatts per year (MW/y)

([93]) DG ENER Net zero manufacturing industry landscape across member states

batteries in Sweden. However, it does not set any specific manufacturing capacity targets, nor a dedicated, streamlined industrial permitting process or dedicated resilience-related auction and procurement criteria.

Sweden offers various incentive instruments, including the 'industry leap' scheme, which provides grants for innovative biofuels, batteries, and hydrogen electrolyser projects from 2018 until 2031, to promote a cleaner industry.

Critical raw materials

Sweden has an important role in the EU's supply of critical raw materials. Ensuring the supply of critical raw materials is necessary to develop technologies for strategic sectors such as renewable energy, digital, aerospace and defence.

The ICMM's Mining Contribution Index ranks Sweden 54th out of 183 countries([94]). In EU mining production of metals and minerals, Sweden leads in iron, lead and zinc ([95]). The extent to which a specific raw material is dominated by a few suppliers or countries is higher than in the EU as an average (0.26 vs EU average 0.22)**.** In 2023, the main critical raw materials imports included copper (Brazil, Norway, Australia), nickel (Australia), aluminium (Norway) and coking coal (Australia).

Action to speed up permitting for extracting critical raw materials is lagging. Sweden is preparing legislation to speed up permits for extracting critical raw materials.

Climate mitigation

Industry decarbonisation

Sweden has a strong manufacturing industry with moderate levels of greenhouse gas emissions intensity. At 28%, Sweden has the fourth highest relative contribution of manufacturing to overall greenhouse gas emissions among EU countries ([96]). However, the emissions intensity of its manufacturing is the fifth lowest in the EU, with 150 g CO_2eq per euro of gross value added) – 55% of the EU average. Between 2017 and 2022, the greenhouse gas emissions intensity of Swedish manufacturing improved by 22%, slightly more than the EU average of 20%. With a share of 54%, Sweden's greenhouse gas emissions from manufacturing are dominated by those related to industrial processes and product use; energy-related emissions account for the remainder. In the EU overall, these shares are 43% and 57%.

In recent years, Sweden has seen major improvements in the emissions intensities of both energy use – owing to higher energy efficiency – and process and product use in manufacturing. In both areas, the emissions intensity of manufacturing has decreased by more than a fifth, 23% in energy use and 21% in industry processes and product use ([97]). This compares with significantly lower (16%) and slightly higher (23%) improvements EU-wide in these two areas. At the same time, the share of electricity and renewables in the final energy consumption of manufacturing remained broadly stable at 80%, the highest in the EU. In parallel, the energy intensity of manufacturing decreased to about the same degree as in the EU overall, by 15%, from 1.8 GWh per euro of GVA to 1.6 GWh/€ – while still remaining 60% higher than the EU average of 1.1 GWh/€ in 2022.

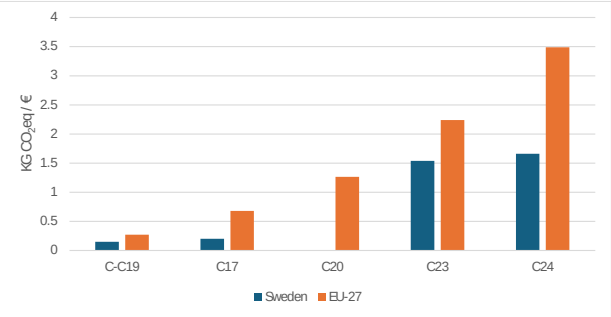
([94]) RMIS - Country Profiles

([95]) COMEXT

([96]) In 2023. Manufacturing includes all divisions of the "C" section of the NACE Rev. 2 statistical classification of economic activities. In the remainder of this section, unless indicated otherwise, data on manufacturing refer to the divisions of the NACE section C excluding division C19 (manufacture of coke and refined petroleum products), and the year 2022. The source of all data in this section is Eurostat; data following the UNFCCC Common Reporting Framework (CRF) are from the European Environment Agency (EEA), republished by Eurostat.

([97]) For the GHG emissions intensity of GVA related to energy use and industrial processes and product use respectively, GHG emissions are from inventory data in line with the UNFCCC Common Reporting Format (CRF), notably referring to the source sectors CRF1.A.2 – fuel combustion in manufacturing industries and construction and CRF2 – industrial processes and product use. The CRF1.A.2 data broadly correspond to the NACE C and E sectors, excluding C-19. GVA data (in the denominator for both intensities) are aligned with this sectoral coverage. Therefore, they are not fully consistent with the data referred to in other part of this section.

Graph A7.1: **GHG emission intensity of manufacturing and energy-intensive sectors, 2022**

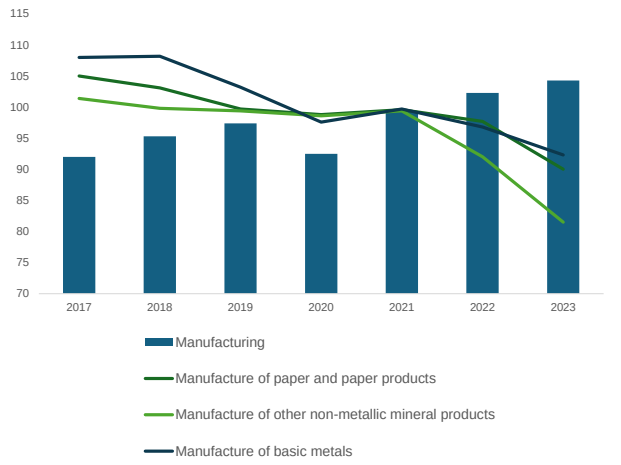


Source: Eurostat.

Production in Sweden's energy-intensive industries is relatively efficient in terms of greenhouse gas emissions. Energy-intensive industries ([98]) account for 12% of Sweden's total manufacturing gross value added (2022). Of these, economically, the manufacture of paper and paper products and basic metals provide for 6 and 4 percentage points respectively. Greenhouse gas emission intensity in these sectors in Sweden are below than the EU average. Unlike for electricity, Sweden has seen larger increases in the gas price in recent years ([99]). Production in its energy-intensive sectors has declined too, by up to almost 25% for non-metallic mineral products and 15% for the basic metals sector.

Sweden has put in place policies to support the decarbonisation of industry. For example, funding for research and development is being provided through the "FONA – research for sustainability" initiative. In addition, Sweden has subsidies for clean technologies, e.g. through 'carbon contracts for difference' and tax incentives for low-carbon investment. Furthermore, it supports the expansion of electrolyser capacity in line with the national hydrogen strategy and promotes both energy efficiency in industry and the development of lead markets for climate-friendly products.

Graph A7.2: **Manufacturing industry production: total and selected sectors, index (2021 = 100), 2017-2023**



Source: Eurostat (series sts_inpr_a)

Reduction of emissions in the effort sharing sectors

To attain its 2030 effort sharing target, Sweden needs to swiftly specify and implement its foreseen climate mitigation policies ([100]). In 2023, GHG emissions from Sweden's effort sharing sectors are expected to have been 37.8% below those of 2005, significantly higher than its effort sharing target, a reduction of 50%. By 2030, current policies are projected to reduce them by 40.8% ([101]). Additional policies considered by Sweden are projected to imply reductions by a further 3 percentage points. This results in a shortfall regarding the effort

([98]) Notably, the manufacture of paper and paper products (NACE division C17), of chemicals and chemical products (C20), "other" non-metallic mineral products (C23; this division includes manufacturing activities related to a single substance of mineral origin, such as glass, ceramic products, tiles, and cement and plaster), and basic metals (C24). To date, these industries are energy-intensive – i.e. consuming much energy both on site and/or in the form of purchased electricity – and greenhouse gas emissions intensive, in various combinations.

([99]) For a detailed analysis of energy prices, see Annex 8 on the affordable energy transition.

([100]) The national greenhouse gas emission reduction target is set out in Regulation (EU) 2023/857 (the Effort Sharing Regulation). It applies jointly to buildings (heating and cooling); road transport, agriculture; waste; and small industry (known as the effort sharing sectors).

([101]) The effort sharing emissions for 2023 are based on approximated inventory data. The final data will be established in 2027 after a comprehensive review. Projections on the impact of current ("with existing measures", WEM) and additional ("with additional policies", WAM) policies based on reported projections by Sweden under Art. 18 of Regulation (EU) 2018/1999 (the Governance Regulation) in 2024.

sharing target, -50 %, by 6.2 percentage points. While Sweden could however reach its effort sharing target by using domestic flexibilities available under the Effort Sharing Regulation, swift and steady adoption and implementation of climate mitigation measures will be important.

Recent policy changes have led to an increase in emissions from road transport, which is a key contributor within the effort sharing sectors. Sweden significantly reduced its fuel blending obligations, lowering the share of biofuels in diesel and petrol. Combined with tax cuts on liquid fuels, this has led to higher fuel consumption. At the same time, the phasing out of purchase incentives for electric vehicles has contributed to a stagnation in electric vehicle sales in 2024. These measures have weakened the decarbonisation trend in the transport sector, putting pressure on Sweden's path to meeting its 2030 target.

Circular economy transition

Despite positive trends, there is room for boosting Sweden's circularity transition. In 2023, the circular use of material was 9.9%, against the EU average of 11.8%. The rate had been increasing quickly since 2019, reaching 12.1% in 2022, but decreased again in 2023. Sweden's resource productivity has been constantly improving since 2019 and reached EUR 2.18 generated per kg of material consumed in 2023, which is slightly below the EU average of EUR 2.22 per kg. In 2020, Sweden adopted its Circular Economy Strategy ([102]), followed by an action plan in 2021 ([103]). The action plan includes measures along the entire lifecycle of products and identifies a set of priority sectors, including plastics, textiles, renewable and bio-based materials, food, the construction and property sector (including building and demolition waste) and innovation-critical materials and minerals. An action plan for plastics ([104]) was adopted in 2022, and some non-legislative measures have been introduced on food waste and textiles. The 2021-2030 national strategy for sustainable regional development throughout the country ([105]) emphasises the importance of a transition to a competitive, circular and sustainable economy. The strategy allows for regional funding for business development through, among other things, the transition to a circular economy.

Sweden's municipal waste generation remained broadly stable in 2010-2019. The reported amounts in 2020 and 2021 were lower but this is likely due to a comprehensive change in reporting methodology in response to the implementation of the new reporting rules introduced in the Waste Framework Directive in 2018. And further adjustments are expected, especially as regards the generation of municipal waste from other sources than households. In 2022, the country generated 395 kg/cap of municipal waste, which is significantly below the estimated EU average of 513 kg/cap.

The recycling rate of 40% is below the estimated EU average of 49%. The recycling rate has been rather stable since 2010, with a large drop in 2020, mainly caused by the change to reporting (new calculation rules). Sweden is at risk of missing the 55% target for preparing municipal waste for re-use and recycling by 2025.

Incineration is the major type of waste treatment, accounting for 59% of all waste treated, while landfilling accounts for less than 1%. The low rates of preparing for reuse and recycling are mainly due to low capture rates for recyclables, and waste incineration continues to be the predominant waste treatment path ([106]).

Current investment in the circularity transition has been insufficient. Sweden is estimated to need total additional investment worth at least EUR 902 million per year for the circular economy transition, including waste management. Of the circular economy gap, EUR 217 million relates to recent initiatives, such as eco-design for sustainable products, packaging and packaging waste, labelling and digital tools, critical raw materials recycling and measures proposed under the amended Waste Framework

([102])Swedish Ministry for Environment, 2020, Link.

([103])Swedish Ministry of Climate and Business, 2021, Link.

([104])Swedish Ministry of Climate and Business, 2022, Link.

([105])Swedish Ministry of Climate and Business, 2020, Link.

([106])European Commission, 2023, *The early warning report for Sweden*, Link.

Directive. EUR 613 million constitutes other needs ([107]).

Zero pollution industry

Air quality in Sweden is generally good. The emissions of several air pollutants have decreased significantly since 2005, while GDP growth has continued. However, Sweden has not made enough progress on reducing emissions under the National Air Pollution Control Programme (NAPCP). The latest reported data show continued non-compliance with the 2020-2029 emissions reduction commitment for NH3 and also projects non-compliance with the emissions reduction commitments for NOx and NH3 that will start in 2030. In 2023, exceedances above the limit values set by the Ambient Air Quality (AAQ) Directive were registered for carbon monoxide (CO) in one air quality zone ([108]) and for PM10 in two air quality zones ([109]) in Sweden ([110]).

Sweden's industry still releases air and water pollutants. The country has the 16th highest damage in the EU, but it only ranks 24th for emissions intensity, below the EU average of EUR 27.5 of damage per 1 000 EUR of gross value added (GVA). The main contributors to emissions to air are the energy sector as well as the pulp and paper industry for NOX emissions; the waste management and the pulp and paper as well as iron industry for dust emissions, and the energy sector, metals sector and mineral sector for SO2 and heavy metals. Sweden has the 7th highest amount of emissions of heavy metals to water, and is in 5th position for emissions intensity (above the EU average intensity of 0.864 kg / EUR billion GVA). The main contributors to emissions to water in Sweden are the pulp and paper industry for all pollutants, and the metal production and processing sector for heavy metals and nitrogen.

The costs of pollution go beyond the investment needs in pollution prevention and control. The latest available annual estimates for Sweden (for 2022) by the European Environment Agency ([111]) attribute 4 500 years of life lost (YLL) to fine particulate matter (PM2.5) ([112]) and 7 000 YLL to ozone ([113]). The costs from all pollutants were estimated at EUR 6.3 billion in 2021 following the value of statistical life methodology ([114]). To meet its objectives for pollution prevention and control and address the health and economic costs of pollution, Sweden needs an additional equivalent to EUR 1 billion per year (around 0.2% of GDP), mostly related to clean air and noise ([115]).

([107])European Commission, DG Environment, *Environmental investment needs & gaps assessment programme*, 2025 update. Expressed in 2022 prices.

([108])SW4 Stockholm Agglomeration.

([109])SW1 North Sweden and SW3 South Sweden

([110])EEA, EIONET data repository, Link.

([111])EEA, 2024, *Harm to human health from air pollution in Europe: burden of disease status, 2024*, Link.

([112])Particulate matter (PM) is a mixture of aerosol particles (solid and liquid) covering a wide range of sizes and chemical compositions. PM_{10} refers to particles with a diameter of 10 micrometres or less. $PM_{2.5}$ refers to particles with a diameter of 2.5 micrometres or less. PM is emitted from many human sources, including combustion.

([113])Low-level ozone is produced by photochemical action on pollution. This year, for the first time, the impact of long-term exposure to ozone has also been taken into account. In previous analysis by the European Environment Agency, only the impact of short-term exposure was estimated.

([114])EEA, 2024, *The costs to health and the environment from industrial air pollution in Europe – 2024 update*, Link.

([115])European Commission, DG Environment, *Environmental investment needs & gaps assessment programme*, 2025 update. Expressed in 2022 prices.

Table A7.1: **Key clean industry and climate mitigation indicators: Sweden**

Strategic autonomy and technology for the green transition				Sweden						EU-27	
Net zero industry											
Operational manufacturing capacity 2023											
- Solar PV (c: cell, w: wafer, m: module), MW	120-250 (m)				- Electrolyzer, MW		-				
- Wind (b: blade, t: turbine, n: nacelle), MW	-				- battery, MWh		15500-16000				
Automotive industry transformation	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**			**2018**	**2021**
Motorisation rate (passenger cars per 1000 inhabitants), %	479	476	473	476	477	473	472	↘		539	561
New zero-emission vehicles, electricity motor, %	1.11	1.96	4.30	9.52	18.95	32.91	38.63	↗		1.03	8.96
Critical raw materials	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**			**2018**	**2021**
Material import dependency, %		26.8	25.0	23.7	23.9	24.4	23.6	↘		24.2	22.6

Climate mitigation				Sweden				Trend		EU-27	
Industry decarbonisation	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**			**2017**	**2022**
GHG emissions intensity of manufacturing production, kg/€	0.19	0.18	0.19	0.18	0.16	0.15		↘		0.34	0.27
Share of energy-related emissions in industrial GHG emissions	53.4	52.9	51.4	53.5	50.8	52.8	53.5	↘		44.8	42.5
Energy-related GHG emissions intensity of manufacturing and construction, kg/€	74.5	73.4	73.4	69.5	62.4	57.1	-	↘		158.4	132.9
Share of electricity and renewables in final energy consumption in manufacturing, %	80.7	79.8	80.5	80.6	79.8	79.8	80.8	↘		43.3	44.2
Energy intensity of manufacturing, GWh/€	1.84	1.80	1.80	1.98	1.66	1.57	1.69	↘		1.29	1.09
Share of energy-intensive industries in manufacturing production						12.6					7.3
GHG emissions intensity of production in sector [...], kg/€											
- paper and paper products (NACE C-17)	0.27	0.28	0.28	0.26	0.22	0.20	-	-		0.73	0.68
- chemicals and chemical products (NACE C20)	-	-	-	-	-		-	-		1.25	1.26
- other non-metallic mineral products (NACE C23)	2.01	2.08	1.69	1.73	1.59	1.54	-	-		2.53	2.24
- basic metals (NACE C24)	1.42	1.16	1.52	1.15	1.38	1.66	-	-		2.79	3.49
Reduction of effort sharing emissions		**2018**	**2019**	**2020**	**2021**	**2022**	**2023**			**2018**	**2023**
GHG emission reductions relative to base year, %					-32.8	-36.9	-37.8				
- domestic road transport		-21.2	-22.3	-27.5	-27.3	-35.1	-34.7	↘		1.4	5.2
- buildings		-56.0	-55.1	-56.3	-55.7	-59.3	-62.6	↘		21.4	32.9
	2005				**2021**	**2022**	**2023**	**Target**		**WEM**	**WAM**
Effort sharing: GHG emissions, Mt; target, gap, %	43.2				29.1	27.3	26.9	-50.0		-6.2	0

Sustainable industry				Sweden				Trend		EU-27	
Circular economy transition		**2018**	**2019**	**2020**	**2021**	**2022**	**2023**			**2018**	**2021**
Material footprint, tonnes per person		26.0	25.9	24.8	24.8	25.5	22.1	↘		14.7	15.0
Circular material use rate, %		6.6	6.4	6.9	9.5	12.1	9.9	↗		11.6	11.1
Resource productivity, €/kg		1.9	1.8	1.9	2.1	2.2	2.3	↗		2.1	2.3
Zero pollution industry											
Years of life lost due to PM2.5, per 100,000 inhabitants		83	51	32	57	67	-	↗		702	571
Air pollution damage cost intensity, per thousand € of GVA					5.9						27.5
Water pollution intensity, kg weighted by human factors per bn € GVA						1.6					0.9

Source: **Net zero industry:** European Commission: The net-zero manufacturing industry landscape across Member States: final report, 2025. **Automotive industry transformation:** Eurostat. **Critical raw materials:** Eurostat. **Climate mitigation:** See footnotes in the "climate mitigation" section; reduction of effort sharing emissions: EEA greenhouse gases data viewer; European Commission, Climate Action Progress Report, 2024. **Sustainable industry:** Years of life lost due to PM2.5: Eurostat and EEA, Harm to human health from air pollution in Europe: burden of disease status, 2024. Air pollution damage: EEA, EU large industry air pollution damage costs intensity, 2024. Emissions covered: As, benzene, Cd, Cr, Hg, NH3, Ni, NMVOC, NOX, Pb, dioxins, PM10, PAH, SOX. Water pollution intensity: EEA, EU large industry water pollution intensity, 2024. Releases into water covered from cadmium, lead, mercury, nickel. Other indicators: Eurostat.

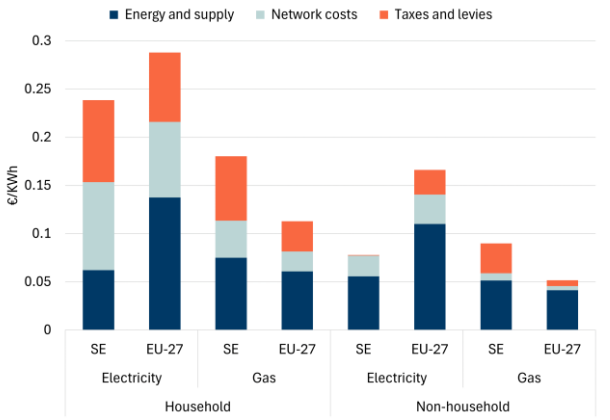
This annex outlines the progress made and the ongoing challenges faced in enhancing energy competitiveness and affordability, while advancing the transition to net zero. It examines the measures and targets proposed in the final updates to the National Energy and Climate Plan (NECP) for 2030.

Sweden has made significant progress in its clean energy transition pathway, and has no Russian gas imports since the beginning of 2025. Significant investments are required for expanding and modernising grids given their importance to achieve the 2030 objectives and to support lower prices if the internal bottlenecks in the network are addressed.

Energy prices and costs

Sweden retail energy prices decreased in 2024 compared to 2024. For households, electricity retail prices decreased only slightly, by 0.2%, but in a greater manner for gas with a 14% year-on-year decrease. The energy and supply component share of electricity prices for households is one of the lowest in the EU, and only contributes 26% to the overall price. Non-household prices decreased by 10% for electricity compared to 2023, and by 31% for gas. For non-household consumers, Sweden enjoys the second lowest price in the EU, notably due to a low taxes and levies component, representing only 0.9% of the total price. In opposition, Sweden taxation of household and non-household consumers gas supply makes Sweden the Member State with the highest prices the EU. For non-household consumers, this component represents 34.3% of the final price, compared to 11.6 at the EU level.

Graph A8.1: **Retail energy price components for household and non-household consumers, 2024**

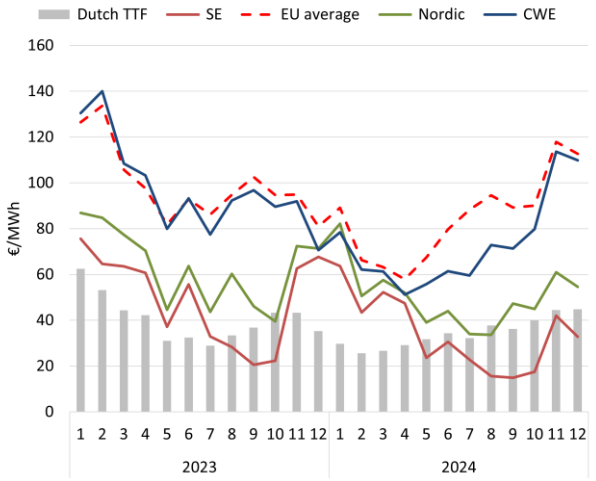


(i) For household consumers, consumption band is DC for electricity and D2 for gas. Taxes and levies are shown including VAT.
(ii) For non-household consumers, consumption band is ID for electricity and I4 for gas. Taxes and levies are shown excluding VAT and recoverable charges, as these are typically recovered by businesses.
Source: Eurostat

Thanks to a large share of renewables (69.5%) and nuclear power (29.2%) in its electricity mix, Sweden had the EU's lowest wholesale electricity prices, averaging 33.9 EUR/MWh in 2024([116]) (EU average of 84.7 EUR/MWh). Along with the broader Nordic region, Sweden experienced price spikes in the winter months of early 2024 which occurred amid significant demand increases due to a cold winter (+16.1% and +10.9% in Jan. and Feb. vs the same period in 2023, respectively). Prices picked up again in the second half of the year amid rising natural gas costs and still limited non-fossil flexibility. In November, prices spiked further across the broader Central Western European (CWE) region due to the Dunkelflaute which negatively impacted day-ahead prices in neighbouring markets. ([117])

([116])Fraunhofer (ENTSO-E data)
([117])Yearly electricity data, Ember (consumption and generation data throughout the paragraph)

Graph A8.2: **Monthly average day-ahead wholesale electricity prices and European benchmark natural gas prices (Dutch TTF)**



(i) the Title Transfer Facility (TTF) is a virtual trading point for natural gas in the Netherlands. It serves as the primary benchmark for European natural gas prices.
(ii) Nordic and CWE respectively provide average prices in the Nordic (Denmark, Finland, and Sweden) and central-western European (Belgium, France, Germany, Luxembourg, the Netherlands, and Austria) markets.
Source: S&P Platts and ENTSO-E

Flexibility and electricity grids

Sweden is part of the Nordic Capacity Calculation Region (CCR)([118]) but also has borders in the Baltic([119]) and Hansa([120]) CCRs. Cross-border trade capacities in the Nordic region are consistently high. Member States should ensure that a minimum of 70% of technical cross-border capacity is available for trading. The borders in the Nordic region are highly interdependent and, to support system operation, flow-based market coupling was successfully implemented in October 2024, thereby increasing the volume of capacities available for trade. Trade capacities across the northern borders with Norway, however, have little margins available for cross-zonal trade, although it is possible that the introduction of flow-based market coupling could support increased capacities in that part of the grid. It is important to operationalise the regional coordination centre to ensure smooth coordination within the region and with neighbouring countries.

In 2024, Sweden had an interconnectivity level of 12.83%, slightly lower than the EU target of at least 15% by 2030. According to Sweden's final updated NECP, the figure is expected to decrease by 2027 despite increasing interconnections with neighbouring countries due to increased domestic electricity generation. The 700 MW Hansa PowerBridge high voltage DC interconnector with Germany was stalled in 2024 by the Swedish government, citing the single price zone of the German power market as a reason, because it would increase power costs in Sweden. In general, a better integrated European electricity market improves overall efficiency and socioeconomic welfare. Sweden has two projects of common interest for electricity: the 'Aurora Line' and 'Aurora Line 2' connections to Finland. The 'Aurora Line' is expected to be commissioned in 2025.

Sweden would benefit from new transmission investments and renewal of parts of the existing transmission network. According to its network development plan for 2024-2033, Svenska Kraftnät, the Transmission System Operator, plans to increase work on both new investments and reinvestment in the grid over the next decade. This includes construction of approximately 1 500 km of new transmission power lines, 30 new substations, and renewal of over 2 500 km of power lines and around 100 substations. Sweden is currently assessing the potential for grid updates and for adding new grids to remove internal congestions. Also, the grid tariff is currently undergoing review, and an updated tariff model is to be decided, upon 2025, with the aim to be implemented during 2026. Further, identifying and communicating geographical areas suitable for new connections (production and consumption), can lead to investments where needed the most.

As for hydrogen, Sweden has two projects of common interest for hydrogen interconnectors: the Nordic-Baltic Hydrogen Corridor with Finland and the Baltic Sea Hydrogen Collector with Finland and Germany.

Challenges to Energy System Integration: creating a more efficient permitting process to construct and connect to the grid would

([118])Norway, Sweden, Finland and Denmark are part of the Nordic CCR. A CCR is a group of countries which calculate cross-border electricity trade flows together.
([119])Finland, Sweden, Estonia, Latvia, Lithuania and Poland belong to the Baltic CCR.
([120])The Hansa CCR includes Germany, the Netherlands, Denmark, Poland and Sweden.

also enable Sweden to increase the pace of grid upgrades. Currently grid connection waiting times varies in Sweden: if connection is possible at a current grid station, the lead time is usually 3-4 years. If a new station is required, the lead time is 5-6 years.

There is still scope in Sweden for significant investments to expand and modernise its electricity grid (both at transmission and distribution level) to achieve the objectives of the Green Deal. Further action to expand its cross-border interconnection capacity and strengthen its national grid will enable Sweden to meet rising energy demand, integrate renewable energy production more effectively and improve grid flexibility. A regulatory reform included in REPowerEU aimed at speeding the authorisation process for electricity grid construction, thus reducing the bottlenecks between the north and south of the country, entered into force on 1 July 2024. Increasing instances of negative pricing in the four bidding zones of the country (SE1 and SE2 434, SE3 429 and SE4 368) highlight the need to make the system more flexible. Sweden is already in a position to take some steps to allow more flexibility in the market. Sweden shows 35 462.78 GWH of RES (renewable energy sources) curtailment.

On flexibility: Sweden has not set a national quantified objective for flexibility, but it has clear objectives for non-discrimination of demand response, storage and flexibility. To this end, it is introducing policies that enable non-discriminatory participation of new flexibility services. Sweden is further developing energy markets at regional level for balancing products, which would allow more types of resources and stakeholders to participate in trade. Legislation also allows electricity grid companies to pilot smaller-scale tariffs to stimulate more efficient grid use through demand response. A Dialogue Forum explores ways to develop regulatory frameworks, enabling aggregators to offer flexibility and support services in a well-functioning market.

In the retail market, Sweden is quite advanced in terms of empowering consumers, as they have a wide choice and their uptake of dynamic and flexible electricity pricing contracts stands at 86% (of which 14% dynamic pricing contracts, 56% average monthly spot-price contracts and 14% other types of contracts). Consumers are also allowed to take advantage of potential cost savings from non-fixed pricing. This consumer activation is mirrored in the switching rate, which increased to 10.7% in 2024 from 7% in 2023 (unlike most Member States, where it decreased).

There are no regulated price measures in force in Sweden. Consumers can benefit from smart metering, as the roll-out is 100%. There are no regulated price measures in force. Sweden is also one of the Member States with the highest share of heat pumps installed, at more than 30%. However, the proportion of household prosumers (consumers who both produce and consume energy) in Sweden corresponds to the EU average (around 5% of all households). Sweden has 191 projects that can be considered as energy communities. However, no specific initiatives have been identified that enable and support frameworks for renewable energy communities and citizen energy communities, as laid down in the Renewable Energy Directive and in the Internal Electricity Market Directive, nor are there programmes or incentives to promote them. Sweden is one of the few Member States to provide comparison tools that meet all the legal requirements, including full market coverage, including dynamic contract comparison.

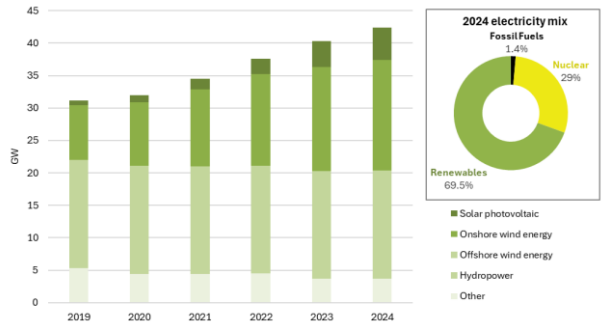
In 2023, electricity accounted for 33.2% of Sweden's final energy consumption, above the EU average of 22.9%, and this share has seen a slight increase in the last decade[5]. When it comes to households, electricity accounts for 48.2% of final energy consumption, while in industry it represents 33.8% (see also Annex 7). For the transport sector, this share remains negligible at 5.8%. Further progress in electrification across sectors is required for cost effectively decarbonising the economy and bringing the benefits of affordable renewable generation to consumers.

Renewables and long-term contracts

In 2024, the share of renewables in electricity reached 69.45%, well above the

EU overall RES share of 47%([121]). In 2024, total renewable energy capacity installed was 42.3 GW (a 5% increase on 2021). Wind and solar capacities installed in 2024 were respectively 17.239 MW and 4.963 MW.

Graph A8.3: **Sweden's installed renewable capacity (left) and electricity generation mix (right)**



"Other" includes solid biofuels, renewable municipal waste and biogas

Source: IRENA, Ember

Sweden's proposed share of renewable energy of 67%, as a contribution towards the 2030 EU renewable energy target, is significantly below the required level laid down in the Governance Regulation. This is despite Sweden having high untapped potential to achieve a higher share of renewables for 2030, for onshore and offshore wind power.

Sweden has put in place several reforms to facilitate permit-granting procedures, including a one-stop-shop for renewable energy projects in line with the Renewable Energy Directive. The country aims to further improve permitting through digitalisation of administrative procedures. Additionally, it plans to define acceleration areas to facilitate wind power projects, which have faced significant challenges recently. The government has taken important steps to address the municipal veto that hampers the uptake of wind energy projects in Sweden by introducing a set of financing incentives focusing on income-sharing models for nearby residents and introduce incentives for municipalities hosting wind projects to take effect as of 2025. Sweden is encouraged to swiftly implement the revised Renewable Energy Directive with a view to transposing it by 21 May 2025.

([121])Yearly electricity data, Ember.

Sweden has an active market for Power Purchase Agreements (PPAs), mostly based on wind generation installations, with some solar photovoltaics projects. The dynamism of this market depends on the existence of a healthy pipeline of renewable energy projects and on expanding access to the market to include smaller entities.

Energy efficiency

Slow but steady improvements in energy efficiency have been made, albeit with modest reductions across most sectors. In 2023, primary energy consumption (PEC) decreased by 2.7% to 41.41 Mtoe. Final energy consumption (FEC) increased by 0.2% to 30.26 Mtoe. Compared to 2022, FEC decreased in most main sectors: in residential by 0.2%, in transport by 1.8% and in services by 1.1%. In the industrial sector, FEC increased by 2.8%. As per the recast Energy Efficiency Directive (Directive (EU) 2023/1791), Sweden should try to achieve a PEC of 35.8 Mtoe and an FEC of 24.7 Mtoe by 2030, which would require a decrease of 13.5% and 18.4%, respectively.

The slowdown of energy efficiency improvements in Sweden has the potential to jeopardise the likelihood of Sweden achieving the European targets for 2030, as well as pose a risk to the country's own long-term target to achieve net-zero emissions by 2045. In its updated NECP, Sweden's contribution in terms of FEC is not in line with Article 4 of Directive (EU) 2023/1791, and overall, PEC and FEC contributions present large gaps compared to both the indicative and corrected indicative formulas of the Directive. Sweden has introduced measures to develop infrastructure for high-efficiency cogeneration and efficient district heating and cooling using waste heat and renewable energy sources, particularly in the industrial sector. This includes both high and low-value residual heat, especially from large industrial installations, which can be directed to the district heating network or other operators who can benefit from it, encouraging local activities to systematically use and reuse leftover energy. Sweden has notified the Commission of its comprehensive heating and cooling assessment identifying potential for the application of high-

efficiency cogeneration and efficient district heating and cooling in line with Article 25(1) of the Energy Efficiency Directive (EU) 2023/1791.

Building energy use: Sweden is expected to maintain the residential sector's positive contribution to its 2030 target for reducing the energy consumption of buildings. Its residential final energy consumption has followed a long-term downward trend (-8% between 2020 and 2022), in line with the targets set out in Sweden´s long-term renovation strategy. Data from 2023 suggest that the downward trend is being maintained. In 2022, heating and cooling represented 71% of the country's residential final energy consumption, of which 67% comes from renewables. Approximately 196 000 heat pumps were sold in 2023, representing a decrease of 9% compared to the previous year. Sweden offers a 30% tax rebate on labour costs when carrying out renovations, including the installation of heat pumps. Sweden is reporting a low number of checks performed on products subject to eco-design and energy labelling, which raises concerns with respect to the compliance levels of the products in question, potential missed energy and CO_2 savings and consumer trust.

Financing of energy efficiency measures and energy renovations: grants still play an important role in Sweden's dedicated financial schemes for energy efficiency, but other financial solutions, such as green bonds and tax rebates, are also used. In 2024 Sweden continued to implement the planned energy efficiency financing schemes, especially under the Recovery and Resilience Facility (RRF) and the 'Climate Leap (Klimatklivet)' and 'Industry Leap (Industriklivet)' programmes addressed to all sectors. In the 2023 budget, the government allocated approximately SEK 1.2 billion in 2023-2025 to support the conversion of heating systems and energy-efficient renovation of single-family homes that are heated with direct-acting electricity or gas.

Security of supply and diversification

Sweden's overall energy mix in 2023 was highly reliant on renewables and biofuels (49.6%) and nuclear (24.3%). Fossil fuels were limited (oil accounting for 19.6%, solid fossil fuels for 3.1% and natural gas for only 1.5%).

Fossil fuel subsidies

In 2023, environmentally harmful([122]) fossil fuel subsidies without a planned phase-out before 2030 represented 0.15%([123]) of Sweden's GDP([124]), below the EU weighted average of 0.49%. Tax measures accounted for the full volume. Additionally, Sweden's 2023 Effective Carbon Rate([125]) averaged EUR 89.69 per tonne of CO_2, above the EU weighted mean of EUR 84.80([126]).

([122])Direct fossil fuel subsidies that incentivise maintaining or increasing in the availability of fossil fuels and/or use of fossil fuels.

([123])Numerator is based on volumes. For all Member States, it includes public R&D expenditures for fossil fuels as reported by the IEA (Energy Technology RD&D Budgets) and excludes, for methodological consistency, excise tax exemption on kerosene consumed in intra-EU27 air traffic. Tax expenditures have been included on a horizontal basis to ensure a comprehensive inventory of incentives for fossil fuel use across Member States. Sweden has reservations about the methodology used and would prefer an alternative approach.

([124])2023 Gross Domestic Product at market prices, Eurostat.

([125])The Effective Carbon Rate is the sum of carbon taxes, ETS permit prices and fuel excise taxes, representing the aggregate effective carbon rate paid on emissions.

([126])OECD (2024), Pricing Greenhouse Gas Emissions 2024

Table A8.1: **Key Energy Indicators**

	Sweden				EU			
	2021	**2022**	**2023**	**2024**	**2021**	**2022**	**2023**	**2024**
Household consumer - Electricity retail price (EUR/KWh)	**0.2361**	**0.2347**	**0.2390**	**0.2386**	**0.2314**	**0.2649**	**0.2877**	**0.2879**
Energy & supply [%]	31.2%	50.5%	33.9%	26.1%	36.6%	54.3%	55.6%	47.8%
Network costs	33.8%	35.1%	31.9%	38.2%	26.7%	25.3%	24.8%	27.2%
Taxes and levies including VAT	35.0%	14.4%	34.2%	35.7%	36.7%	20.3%	19.6%	25.0%
VAT	19.9%	25.0%	20.0%	20.0%	14.5%	13.4%	13.8%	14.6%
Household consumer - Gas retail price	**0.1745**	**0.2453**	**0.2103**	**0.1803**	**0.0684**	**0.0948**	**0.1121**	**0.1128**
Energy & supply	42.9%	52.8%	49.5%	41.6%	43.7%	61.0%	64.5%	53.9%
Network costs	20.6%	15.9%	17.3%	21.3%	22.5%	17.3%	17.1%	18.3%
Taxes and levies including VAT	36.6%	31.3%	33.2%	37.1%	33.8%	21.7%	18.4%	27.8%
VAT	20.0%	20.0%	20.0%	20.0%	15.5%	11.6%	10.2%	13.6%
Non-household consumer - Electricity retail price	**0.0748**	**0.1060**	**0.0870**	**0.0779**	**0.1242**	**0.1895**	**0.1971**	**0.1661**
Energy & supply	59.3%	65.4%	63.1%	57.3%	43.0%	66.5%	63.0%	55.8%
Network costs	19.6%	14.0%	16.3%	22.0%	15.8%	10.7%	11.9%	15.5%
Taxes and levies excluding VAT	1.5%	0.7%	0.8%	0.9%	30.4%	9.9%	11.2%	15.4%
Non-household consumer - Gas retail price	**0.0863**	**0.1547**	**0.1311**	**0.0898**	**0.0328**	**0.0722**	**0.0672**	**0.0517**
Energy & supply	52.5%	62.5%	59.0%	45.9%	66.2%	77.3%	77.3%	68.7%
Network costs	5.9%	3.3%	4.0%	6.7%	7.7%	3.8%	5.3%	7.1%
Taxes and levies excluding VAT	26.9%	17.8%	21.2%	34.3%	12.5%	6.1%	7.3%	11.6%
Wholesale electrity price (EUR/MWh)	57.8	100.3	49.3	33.9	111.0	233.2	99.1	84.7
Dutch TTF (EUR/MWh)	*n/a*	*n/a*	*n/a*	*n/a*	46.9	123.1	40.5	34.4

	2017	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
Gross Electricity Production (GWh)	**164 250**	**163 400**	**168 439**	**163 833**	**171 798**	**173 159**	**166 093**	-
Combustible Fuels	15 547	15 571	16 390	13 618	16 137	16 015	14 024	-
Nuclear	65 696	68 549	66 130	49 198	52 965	51 944	48 470	-
Hydro	65 168	62 250	65 393	72 440	73 926	69 967	66 240	-
Wind	17 609	16 623	19 847	27 526	27 244	33 253	34 245	-
Solar	230	407	679	1 051	1 526	1 980	3 114	-
Geothermal	-	-	-	-	-	-	-	-
Other Sources	-	-	-	-	-	-	-	
Gross Electricity Production [%]								
Combustible Fuels	9.5%	9.5%	9.7%	8.3%	9.4%	9.2%	8.4%	-
Nuclear	40.0%	42.0%	39.3%	30.0%	30.8%	30.0%	29.2%	-
Hydro	39.7%	38.1%	38.8%	44.2%	43.0%	40.4%	39.9%	-
Wind	10.7%	10.2%	11.8%	16.8%	15.9%	19.2%	20.6%	-
Solar	0.1%	0.2%	0.4%	0.6%	0.9%	1.1%	1.9%	-
Geothermal	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
Other Sources	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
Net Imports of Electricity (GWh)	**-18 992**	**-17 223**	**-26 161**	**-24 997**	**-25 568**	**-33 219**	**-28 492**	-
As a % of electricity available for final consumption	-14.6%	-13.2%	-20.5%	-19.8%	-19.5%	-26.4%	-23.1%	-
Electricity Interconnection [%]	**25.6%**	**26.0%**	**25.2%**	**24.2%**	**16.3%**	**14.4%**	**12.8%**	**12.8%**
Share of renewable energy consumption - by sector [%]								
Electricity	65.9%	66.2%	71.2%	74.5%	75.8%	83.4%	87.5%	-
Heating and cooling	63.6%	63.3%	64.4%	66.4%	68.5%	69.8%	67.1%	-
Transport	26.8%	29.7%	30.3%	31.9%	28.7%	28.8%	33.6%	-
Overall	53.4%	53.9%	55.8%	60.1%	62.5%	66.3%	66.4%	-

	2020	**2021**	**2022**	**2023**	**2020**	**2021**	**2022**	**2023**
Import Dependency [%]	**32.0%**	**21.2%**	**27.0%**	**26.4%**	**57.5%**	**55.5%**	**62.5%**	**58.3%**
of Solid fossil fuels	98.8%	94.2%	104.7%	96.4%	35.8%	37.2%	45.9%	40.8%
of Oil and petroleum products	118.1%	72.4%	104.4%	99.6%	96.8%	91.7%	97.8%	94.5%
of Natural Gas	100.0%	100.0%	102.5%	102.3%	83.6%	83.6%	97.6%	90.0%
Dependency from Russian Fossil Fuels [%]								
of Natural Gas	12.7%	9.8%	8.4%	12.9%	41.0%	40.9%	20.7%	9.3%
of Crude Oil	8.0%	8.7%	2.5%	0.0%	25.7%	25.2%	18.4%	3.0%
of Hard Coal	23.8%	30.8%	4.8%	0.0%	49.1%	47.4%	21.5%	1.0%

	2017	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Gas Consumption (in bcm)	**1.1**	**1.2**	**1.1**	**1.1**	**1.2**	**0.8**	**0.8**
Gas Consumption year-on-year change [%]	23.9%	7.2%	-6.6%	-2.8%	5.6%	-32.3%	-1.2%
Gas Imports - by type (in bcm)	**1.1**	**1.1**	**1.1**	**1.4**	**1.2**	**0.8**	**0.9**
Gas imports - pipeline	0.8	0.8	0.8	0.8	0.8	0.6	0.6
Gas imports - LNG	0.3	0.3	0.3	0.7	0.4	0.2	0.4
Gas Imports - by main source supplier [%]							
Denmark	70.6%	70.2%	72.4%	52.0%	66.6%	76.2%	60.5%
Russia	0.0%	0.0%	0.0%	12.7%	9.8%	8.4%	12.9%
Netherlands	5.5%	7.9%	4.5%	7.3%	5.5%	3.7%	7.3%
Norway	18.4%	12.6%	12.2%	8.5%	3.7%	8.0%	5.8%

Source: Eurostat, ENTSO-E, S&P Platts

Sweden is affected by a decline in carbon removals within land use, land use change, and forestry (LULUCF), and is projected not to meet the 2030 target. At the same time, the degradation of vital ecosystems, particularly protected forest habitats, threatens biodiversity and economic sectors dependent on ecosystem services. The country's rapid temperature rise compounds these issues, increasing the occurrence of heatwaves, droughts and wildfires. Significant gaps in funding and policy implementation remain. Closing these gaps is essential to preserving Sweden's environmental integrity and economic resilience.

Climate adaptation and preparedness

Sweden's main challenge is the rate of temperature rise. It is around twice as high as the global average, with an increase of about +2 °C compared with the mid-1800s. In recent decades, Sweden has seen an increase in the number and intensity of heatwaves, which can also lead to local droughts and wildfires. In some municipalities, droughts in 2018 led to temporary water scarcity ([127]). 2018 was also Sweden's worst year ever in terms of wildfires, with nearly 20 000 ha of forest and other wooded land burnt ([128]). Sweden is also expected to experience increased precipitation and more frequent extreme rainfall events due to climate change, raising the risk of flooding, particularly in southern regions and parts of the northern mountains. Rising sea levels, especially in southern coastal areas, will further heighten the risk of coastal flooding ([129]).

Climate risks directly affect Sweden's society and economy. Over the period 1980-2023 a total of EUR 3.7 billion in economic losses was caused by weather and climate-related extreme events. These developments are likely to have a particular impact on vulnerable groups. However, overall, climate-related human costs and economic losses in Sweden are low compared to the rest of the EU. Between 1980 and 2023 there were 44 recorded fatalities caused by climate-related extreme events, the fourth lowest in the EU. Economic losses during that period account for 0.5% of all economic losses caused by weather extreme events in the EU, with 26% of economic losses insured. This is the third lowest value of economic losses per capita in the EU, after Estonia and Luxembourg ([130]), but the Financial Supervisory Authority nevertheless launched an in-depth analysis to examine how increased risks of extreme weather may affect consumers' insurance coverage ([131]).

Sweden has strengthened climate adaptation actions at both national and regional levels. Since 2018 it has implemented the National Adaptation Strategy (NAS), revised and updated in 2024 ([132]), as well as the Adaptation Ordinance since 2019, which requires national authorities and county administrative boards (CABs) to integrate adaptation measures into their work. Sweden's assessment of risks and vulnerabilities has been enhanced through sector-specific evaluations covering key climate risks such as heatwaves, floods and drought. The Swedish Meteorological and Hydrological Institute plays a central role in providing climate data to inform these efforts. Further measures are planned to improve risk assessments and monitoring frameworks, and a national climate and vulnerability analysis and policy evaluation will be presented in December 2026 ([133]) . Adaptation is mainstreamed across policies, and Sweden has increased funding for municipalities to support preventive measures to tackle natural disasters, including landslides and floods. The NAS sets priorities for adaptation across seven key areas, including water supply shortages, biodiversity protection, and impacts on infrastructure and

([127])EEA, 2024, *European Climate Risk Assessment*, p. 212.

([128])EEA, 2024, *European Climate Risk Assessment*, p. 246.

([129])Klimatunderlag för klimat- och sårbarhetsanalyser - https://www.smhi.se/publikationer-fran-smhi/sok-publikationer/2025-02-10-klimatunderlag-for-klimat--och-sarbarhetsanalyser

([130])EEA, 2024, *Economic losses from weather- and climate-related extremes in Europe*, Link.

([131])Finansinspektionen, 2025, *FI granskar hur extremväder kan påverka konsumenters försäkringsskydd*, Link.

([132])National Adaptation Action Plan - https://www.regeringen.se/rattsliga-dokument/skrivelse/2024/03/skr.-20232497

([133])Climate Adaptation Council to develop new national climate and vulnerability analysis - https://klimatanpassningsradet.se/nyheter/nyheter/2024-01-25-ny-nationell-klimat--och-sarbarhetsanalys-ska-tas-fram

public health ([134])). Sweden also makes use of various EU funds to improve its preparedness. These include the European Regional Development Fund and the Recovery and Resilience Facility.

Climate adaptation is also addressed at sub-national level. Sweden has strengthened its national support structures for regional adaptation. There are also a wide range of local and regional adaptation policies and actions, and Swedish municipalities and regions are active in the EU Mission on Adaptation to Climate Change. Of the 294 EU regions and local authorities participating in the EU Mission on Adaptation to improve their work on climate adaptation, eight are in Sweden, including authorities from the three most populous counties ([135]).

Water resilience

Water-related ecosystems are vulnerable to the effects of climate change, such as water shortages, droughts and floods. Moreover, hydropower and land drainage pose a significant threat to the biodiversity in the aquatic environment. Sweden's water productivity, standing at EUR 222 per m^3 of abstracted water, is the fifth highest in the EU ([136]). The water exploitation index plus (WEI+) reached 0.3 in 2022, which is the second-best result in the EU. The economic sector with the highest water consumption is manufacturing, which absorbed 431 million m^3 of water in 2022.

The assessment of the third river basin management plan (covering the time period 2022-2027) shows a minor improvement in the ecological status/potential of surface water bodies, and no improvement in their chemical status, as compared to the status reported in the second plan. There has been a slight deterioration in the quantitative status and chemical status of groundwater bodies. About 41% of surface water bodies are classified as having good or better ecological status/potential, showing some improvement compared to the second plan. However, the degree of monitoring has fallen, so that now only 21% of surface water bodies are monitored to assess ecological status/potential. The analysis of Sweden's plan has identified nutrients from agriculture as a significant pressure for groundwater/surface water, affecting its good status. According to the Swedish Agency for Marine and Water Management, hydropower represents the most significant pressure on lake and river water bodies ([137]). Almost 4 000 river water bodies and 1 000 lake water bodies are affected by water regulation or lack of connectivity. While Sweden has introduced a national assessment plan ([138]) to review the permits of hydropower plants that have a significant effect on water bodies, the review process is expected to take until the early 2040s, which means that Sweden does not expect improvements to hydromorphological conditions to be achieved by 2027. Coastal water bodies are also under pressure, with 79% reported as having less than good ecological status. Furthermore, only 2% of highly modified and artificial surface water bodies have a good ecological potential. By 2027, less than 50% of surface water bodies are expected to achieve a good ecological status/potential.

While the current water treatment and compliance levels are high, significant investment will be required to meet the stricter standards of the revised Urban Wastewater Treatment Directive. This investment would create a financial gap in water sector funding needs**.** In Sweden, the rate of load collection from agglomerations of more than 2 000 p.e. is 100%, while 97% of urban wastewater meets all the requirements of the Urban Wastewater Treatment Directive. However, the revised Directive (to be transposed by 31 July 2027) introduced stricter requirements, so efforts will be needed to ensure compliance with the new standards. As shown in Graph A9.2, the annual water investment needs amount to an estimated equivalent to EUR 1.2 billion over the period 2021-2027. These include investment needs for the water industry, environmental protection and

([134])European Commission, 2023, *Assessment of progress on climate adaptation in the individual Member States according to European Climate Law*, Link.

([135])EU Mission on Adaptation, Link.

([136])Measured as GDP in 2010 chain linked volumes over total fresh surface water abstracted in cubic metres.

([137])Swedish Agency for Marine and Water Management, 2019, *Towards sustainable hydropower in Sweden*, Link.

([138])The Swedish Energy Agency, 2019, *Nationell plan för omprövning av vattenkraft*, Link.

water management. Water investments in Sweden are estimated at SEK 7.82 billion equivalent to around EUR 736 million per year ([139]), leaving a gap of approximately EUR 473 million per year (around 0.1% of gross domestic product), of which EUR 287 million are linked to wastewater measures (also including the additional costs of the revised Directive). Drinking water measures require an additional EUR 16 million per year and the other aspects of the Water Framework Directive around EUR 165 million per year.

Biodiversity and ecosystems

The state of nature and ecosystems, in particular protected forest habitats, continues to degrade in Sweden. According to the assessment under the EU Habitats Directive covering the years 2013-2018, the share of favourable conservation statuses has been relatively stable since the last reporting period (i.e. 2007-2012). The share of habitats classified as having good conservation status accounted for 22.6% in 2018 compared to the 25.7% reported under the previous assessment period. In the case of protected species, the share of assessments indicating a good conservation status in 2018 has slightly increased, reaching 47.45% (compared to the 45.5% during the previous period). However, conservation statuses are uneven across groups: of the 33 biogeographical assessments of the 16 EU forest habitat types protected under the EU nature directives in Sweden, only 6% (two habitat types in the Alpine region) have favourable conservation status. Forest degradation has been more pronounced in the northern part of Sweden. According to research using an international accounting framework (the system of environmental-economic accounting - ecosystem accounting) that makes it possible to aggregate seven different variables into a single condition index, the average forest condition in the Boreal region changed from 0.625 in 2000 to 0.605 in 2018. This is a decline of 2%, mainly driven by lower ecosystem productivity and lower soil organic carbon ([140])([141]). For forest habitats, the main pressure is forestry (including conversion to less biodiverse forests), followed by energy production (biomass) and natural processes.

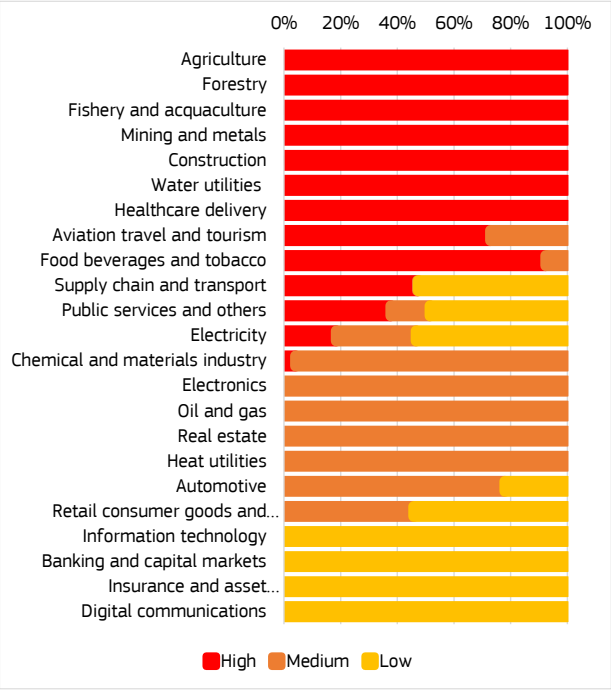
The degradation of nature, and forest ecosystems in particular, create risks to Sweden's economy and competitiveness Several sectors, such as forestry, agriculture, fisheries, construction and water utilities (see Graph A9.1), are particularly vulnerable, with 100% of the gross value added of these sectors directly dependent on ecosystem services. Sweden's economy is also highly dependent on ecosystem services in its supply chain, amounting to 28% of gross value added. This reflects a particularly high dependency in forestry and healthcare. This means that failure to maintain the capacity of ecosystems to deliver services could entail significant costs or even stop production in these sectors. Protecting and restoring key ecosystems would ensure that the long-term competitiveness of these economic sectors is preserved.

([139])Calculated using the average annual exchange rate of 2022 which stood at 10.63 EUR/SEK according to Eurostat.

([140])Barredo, J.I. et al., 2023, *Accounting for forest condition in Europe based on an international statistical standard*, Link.

([141])The storage and release of organic matter and carbon is one of the key ecosystem services provided by soils. A loss in soil organic carbon stock reduces the soil's capability to offset GHG emissions by storing carbon, harms biodiversity and biomass production and reduces other regulatory services (e.g. flood regulation).

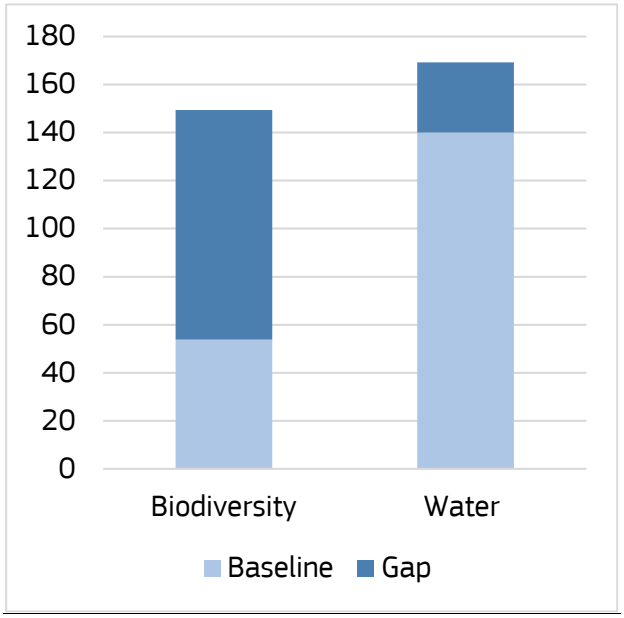
Graph A9.1: **Direct dependency(1) on ecosystem services(2) of the gross value added generated by economic sector in 2022**



(1) Dependency based on the sector's own operations, excluding value chain operations within countries and across international value chains. A high dependency indicates a high potential exposure to nature-related shocks or deteriorating trends, which means that the disruption of an ecosystem service could cause production failure and severe financial loss.
(2) Ecosystem services are the contributions of ecosystems to the benefits that are used in economic and other human activity, including provisioning services (e.g. biomass provisioning or water supply), regulating and maintenance services (e.g. soil quality regulation or pollination), and cultural services (e.g. recreational activities).
Source: Hirschbuehl et al., 2025, *The EU economy's dependency on nature*, Link.

Targeted action on nature protection and restoration is needed in order to meet nature restoration targets. Taking into account both Natura 2000 and other nationally designated protected areas, Sweden legally protects 14.9% of its land area (EU average 26%) and 15.5% of its marine areas (EU average 12%). Sweden also needs to restore up to 76 120 km^2 of habitats listed in Annex I to the Habitats Directive, corresponding to up to 16.9% of its territory ([142]). Sweden requires EUR 6.7 billion of investment per year to effectively conserve and restore its natural capital, mitigate the impacts of climate change and preserve biodiversity (see Graph A9.2). The current level of financing for biodiversity and ecosystem conservation in Sweden is around EUR 655 million per year, leaving a gap of around EUR 6 billion per year, corresponding to 1.09% of the country's GDP. This shortfall puts Sweden's commitment to global biodiversity agreements at risk.

Graph A9.2: **Investment needs and gaps in EUR million, in 2022 constant prices**



Source: European Commission, DG Environment, Environmental investment needs & gaps assessment programme, 2025 update.

Sustainable agriculture and land use

Sweden's carbon removals fall short of the level of ambition needed to meet its 2030 target for land use, land use change and forestry (LULUCF). Sweden is facing significant challenges in enhancing the carbon-absorbing capacity of its land-use sector, as carbon removals have declined at a rapid pace in recent years. To meet its 2030 LULUCF target, additional carbon removals of 4.0 million tonnes of CO_2 equivalent (CO_2eq) are needed ([143]). The latest NECP projections show a gap to target of 13.3 million

([142])European Commission, 2022, *Impact assessment accompanying the proposal for a Regulation on nature restoration.*

([143])National LULUCF targets of the Member States in line with Regulation (EU) 2023/839.

tonnes of CO_2eq for 2030 ([144]). Additional measures therefore need to be applied in order to achieve the 2030 target.

Swedish agriculture is still a notable source of greenhouse gas emissions and continues to have a significant impact on air, water and soils. In 2022, agriculture was responsible for a total of 6.5 million tonnes of CO_2 equivalent, accounting for around 14% of the country's total emissions (excluding LULUCF). Sweden's utilised agricultural area amounted to nearly 3 million hectares in 2023 and has remained quite stable for the last decade. Although the livestock density index was 0.55 in 2020, below the EU average of 0.75, levels of pesticides exceeding established thresholds were detected in 25% of reported monitoring sites in surface water bodies, compared to the EU average of 11.6% ([145]).

Sweden is transitioning to a sustainable food system by implementing policies to reduce the environmental impact of agriculture. In 2022, 8.1% of its agricultural land had landscape features such as woods and non-productive grasslands, which is above the EU average of 5.6%. Organic farming, with reduced use of synthetic fertilisers and pesticides, made up 20% of Sweden's agricultural land. While this is the third highest value in the EU, the data show a slightly declining trend over the past years. The Swedish common agricultural policy strategic plan will use 30% (about EUR 1.3 billion) of the EU financial contribution to support environmental and climate objectives, focusing on carbon sequestration, biodiversity and valuable grasslands, as well as increasing knowledge of sustainable production. Farmers or other land managers may receive support for managing pastures and meadows to preserve and enhance their natural and cultural environmental values, with the aim of maintaining over 420 000 hectares annually.

([144])Climate Action Progress Report 2024 COM/2024/498.

([145])EEA, 2024, *Pesticides in rivers, lakes and groundwater in Europe*, Link.

Table A9.1: **Key indicators for progress on climate adaptation, preparedness and environment**

Climate adaptation and preparedness:	Sweden						EU-27	
	2018	2019	2020	2021	2022	2023	2018	2021
Drought impact on ecosystems *[area impacted by drought as % of total]*	14.73	6.2	4.03	5.8	2.58	3.06	6.77	2.76
Forest-fire burnt area [1] *[ha, annual average 2006-2023]*	2 287	2 287	2 287	2 287	2 287	2 287		
Economic losses from extreme events *[EUR million at constant 2022 prices]*	93	149	67	46	-	92	24 142	62 981
Insurance protection gap [2] *[composite score between 0 and 4]*	-	-	-	-	1.00	1.00		
Heat-related mortality [3] *[number of deaths per 100 000 inhabitants in 2013-2022]*	2	2	2	2	2			
Sub-national climate adaptation action *[% of population covered by the EU Covenant of Mayors for Climate & Energy]*	49	49	49	49	48	47	41	44

Water resilience:	Sweden						EU-27	
	2018	2019	2020	2021	2022	2023	2018	2021
Water Exploitation Index Plus, WEI+ [4] *[total water consumption as % of renewable freshwater resources]*	0.4	0.3	0.3	0.2	0.3	-	4.5	4.5
Water consumption *[million m^3]*	691	702	713	472	524	-		
Ecological/quantitative status of water bodies [5] *[% of water bodies failing to achieve good status]*								
Surface water bodies	-	-	-	59%	-	-	-	59%
Groundwater bodies	-	-	-	1%	-	-	-	93%

Biodiversity and ecosystems:	Sweden						EU-27	
	2018	2019	2020	2021	2022	2023	2018	2021
Conservation status of habitats [6] *[% of habitats having a good conservation status]*	22.6	-	-	-	-	-	14.7	-
Common farmland bird index *2000=100*	76.6	80.6	84.7	74.9	78.7	-	72.2	74.4
Protected areas *[% of protected land areas]*	-	-	-	15	15	-	-	26

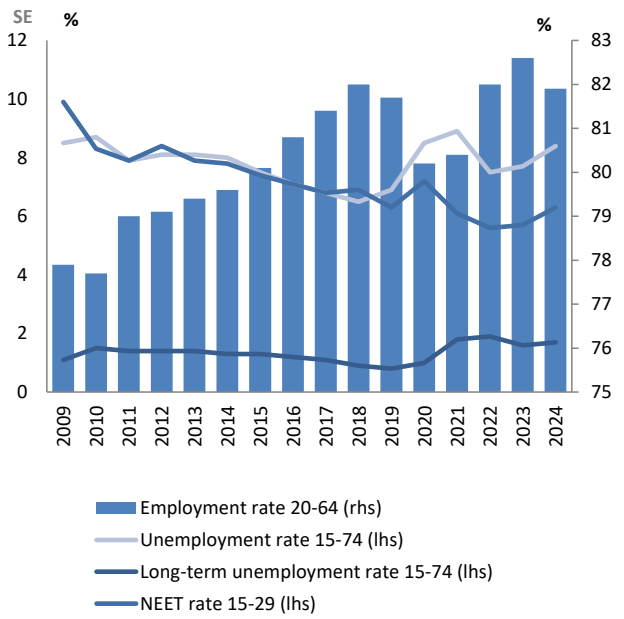
Sustainable agriculture and land use:	Sweden						EU-27	
	2018	2019	2020	2021	2022	2023	2018	2021
Bioeconomy's added value [7] *[EUR million]*	22 395	22 185	22 026	25 729			634 378	716 124
Landscape features *[% of agricultural land covered with landscape features]*	-	-	-	-	8	-		
Food waste *[kg per capita]*	-	-	121	118	117	-		
Area under organic farming *[% of total UAA]*	20.3	20.4	20.3	20.2	19.9		7.99	-
Nitrogen balance *[kg of nitrogen per ha of UAA]*	60.6	26.1	-	-	-	-		
Nitrates in groundwater [8] *[mgNO_3/l]*	-	-	-	-	-	-		
Net greenhouse gas removals from LULUCF [9] *[Kt CO_2-eq]*	- 38 610	- 40 513	- 43 043	- 43 591	- 41 218	-	- 256 077	- 240 984

(1) The data show the average for the timespan 2006-2023 based on EFFIS - European Forest Fire Information System.
(2) Scale: 0 (no protection gap) – 4 (very high gap). EIOPA, 2024, Dashboard on insurance protection gap for natural catastrophes.
(3) van Daalen, K. R. et al., 2024, The 2024 Europe report of the Lancet Countdown on health and climate change: unprecedented warming demands unprecedented action. The Lancet Public Health.
(4) This indicator measures total water consumption as a percentage of the renewable freshwater resources available for a given territory and period. Values above 20% are generally considered to be a sign of water scarcity, while values equal or greater than 40% indicate situations of severe water scarcity.
(5) European Commission, 2024, seventh Implementation Report from the Commission to the Council and the European Parliament on the implementation of the Water Framework Directive (2000/60/EC) and the Floods Directive (2007/60/EC) (Third River Basin Management Plans and Second Flood Risk Management Plans).
(6) For this indicator, the EU average includes figures for the UK under the previous configuration, EU-28.
(7) European Commission, 2023, EU Bioeconomy Monitoring System dashboards.
(8) Nitrates can persist in groundwater for a long time and accumulate at a high level through inputs from anthropogenic sources (mainly agriculture). The EU drinking water standard sets a limit of 50 mg NO_3/L to avoid threats to human health.
(9) Net removals are expressed in negative figures, net emissions in positive figures. Reported data are from the 2024 greenhouse gas inventory submission. 2030 value of net greenhouse gas removals as in Regulation (EU) 2023/839 – Annex IIa.
Source: Eurostat, EEA.

The labour market in Sweden remains resilient, yet with signs of slowing down. The labour market in Sweden continues to be a top performer in terms of employment rate, while at the same time having one of the highest unemployment rates in the EU. This is due to structural challenges: Sweden suffers from skills mismatches, with labour shortages in certain sectors and some groups experiencing barriers to work. Addressing these challenges will be key to combat increasing unemployment and to create a more inclusive labour market.

The labour market has been resilient in the recent phase of weak growth but is expected to recover only slowly. The employment rate slightly decreased in 2024 to 81.9%, but remained among the highest in the EU. Sweden has fallen below its 2030 employment target rate of 82%, despite being above it in 2022 and 2023. This shows that continued efforts are needed to ensure the levels stay above the target until 2030. There are signs of a slowdown, amid weak economic growth. In 2024 unemployment rose to 8.4%. This is well above the EU average of 5.9%, and among the highest unemployment rates in the EU. Although steadily decreasing over the last years, the unemployment gap between those born outside the EU and those born in Sweden remains high, at 13.6 percentage points (pps) (19.3% compared to 5.7%). The overall unemployment rate is expected to rise during 2025, before falling again in 2026. Labour market slack ([146]) increased 2024 (to 13.4%) compared to one year before (12.3% in 2023), remaining above the EU average (11% in 2024). This was mainly due to an increase in the unemployed and people seeking work but not immediately available.

Graph A10.1: **Key rates: employment, unemployment, long-term unemployment, NEETs**



Source: Eurostat, LFS [lfsi_emp_a, une_rt_a, edat_lfse_20, une_ltu_a]

Although having improved somewhat, the challenges associated with integrating people born outside the EU remain. While the employment of those born outside the EU was above the EU average in 2023 (70.4% vs 67.9%), it was significantly below the employment rate of those born in Sweden, at 85%. This represents an employment gap of 14.6 pps, considerably above the EU average of 9 pps but improving compared to previous years. The employment gap is even wider between women born outside the EU and women born in Sweden (18.6 pps), although the employment rate of women born outside the EU is also above the EU average (65.2% vs EU: 58.68%). Sweden also had one of the highest unemployment rates among Member States for people born outside the EU in 2023 (19.3% vs 10.8% EU average). Women born outside the EU have an unemployment rate of 20.8% (vs 5.6% of women born in Sweden).

The rate of over-qualification among 20–64-year-olds is much higher for those born outside the EU. Of those, 25.4% had a qualification that was not required in their field of employment, while for those born in Sweden this figure stood at only 10.6%. This suggests entry barriers for highly educated migrants to jobs for which they would in principle be well qualified. On

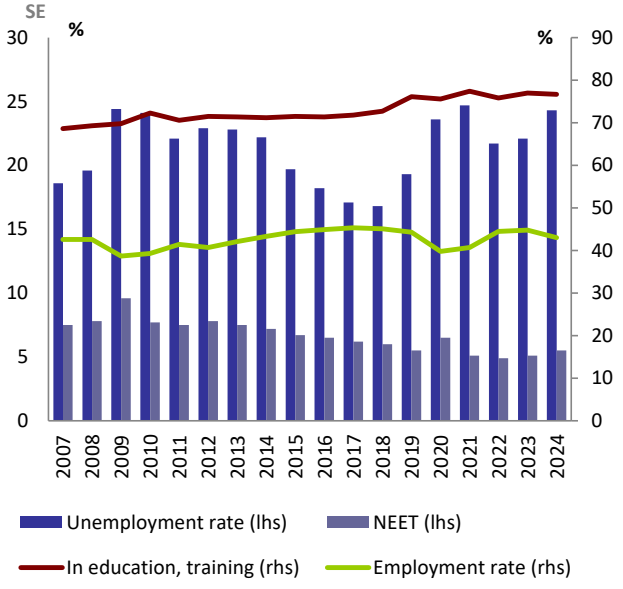
([146])Labour market slack refers to all unmet needs for employment, namely it represents the extent to which labour supply exceeds labour demand in the short run. It encompasses four components: underemployed people working part-time, unemployed people, people seeking work but not immediately available, and people available to work but not seeking.

average, 47.1% of 25–64-year-olds in Sweden who were not born in the EU have a high level of education ([147]), while only 28.3% have lower-level qualifications. Such under-used potential affects competitiveness, long-term productivity and social cohesion. The Swedish recovery and resilience plan (RRP) includes investment of approximately EUR 400 million in upskilling the elderly care workforce (of which a significant share are women from migrant backgrounds), including by providing Swedish language training.

Certain population groups face a higher risk of long-term unemployment. Long-term unemployment slightly increased in 2024 (to 1.7% vs 1.9% EU average), and the Swedish Public Employment Service (PES) predicts that it will continue to increase until 2026([148]). The increase in long-term unemployment is projected to affect mainly people in a more vulnerable position on the labour market, such as those without at least upper-secondary education, people born outside the EU, are older than 55 years or those with a disability that results in reduced work capacity. Among the unemployed in a more vulnerable position on the labour market, almost half lack upper secondary education, which demonstrates the importance of upskilling this part of the work force (see also Annex 12). Furthermore, according to the PESs, the number of people unemployed for 24 months or longer has begun to increase, and now accounts for more than half (56%) of all long-term unemployed. Within this group, nearly nine out of ten are assessed to have a weak standing in the labour market ([149]). The European Social Fund Plus (ESF+) specifically aims to help those who are furthest away from the labour market, including persons with disabilities, newly arrived migrants, young people and the long-term unemployed.

Youth unemployment remains high but increasing numbers of young people are taking part in education and training. Sweden has one of the highest youth unemployment rates in the EU, but this figure is at least partly inflated by students registering as unemployed. On the positive side, the country also has a very high activity rate of young people (aged 15-24) participating in the labour market (56.8% compared to the EU 41.1% in 2024). The rate of young people aged 15-24 not in education, employment or training (NEETs) was among the lowest in the EU at a rate of 5.5% in 2023 (vs EU: 9.1%). This figure slightly increased by 0.4 pps compared to 2023. However, in 2024 at 13,3% the NEET rate was significantly higher among young persons with disabilities ([150]).

Graph A10.2: **Labour market outcomes of young people - Sweden**



Source: Eurostat, LFS [une_rt_a, edat_lfse_18, lfsi_emp_a, edat_lfse_20]

Although labour shortages are declining, they remain a pressing issue in certain sectors. The job vacancy rate remains high (2.3% in 2024) but has been falling since its peak in 2022, when it stood at 3.1%. However, labour shortages remain high in some sectors. According to CEDEFOP-EURES data ([151]), in 2024 the occupations most requested in the country were professionals (25.9%), associate professionals (19.3%), and service and sales workers (16.3%). ICT professionals, office associate professionals and care workers are included in each of the above-mentioned groups ([152]). Macroeconomic skills

([147])i.e. ISCED level 5-8

([148])Arbetsförmedlingen, 2024, Arbetsmarknadsutsikterna hösten 2024

([149])Arbetsförmedlingen, 2024, Arbetsmarknadsutsikterna hösten 2024

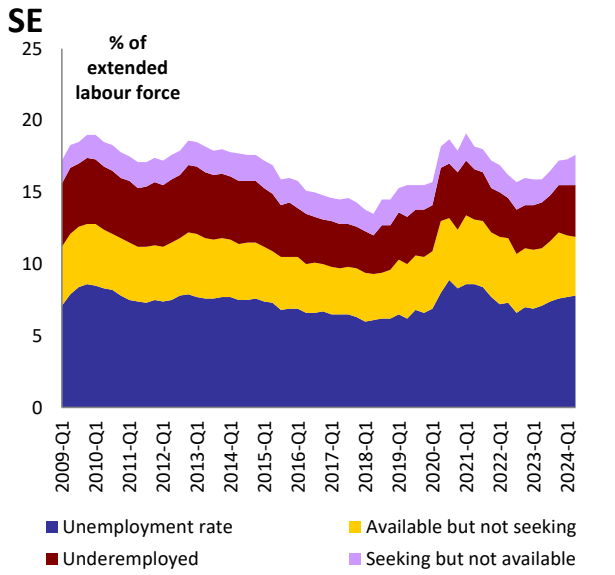
([150])With some or severe activity limitations (Eurostat edat_lfse_39)

([151])https://www.cedefop.europa.eu/en/tools/skills-online-vacancies/ela-eures/countries-occupations

([152])From January to September 2024

mismatch ([153]) slightly increased in 2024, reaching 16.4% (EU: 19.2%). As regards over-qualification, in 2023, 13.6% of workers with higher-education qualifications were employed in occupations that did not require that level of qualification, which is well below the EU average that year (21.9%).

Graph A10.3: **Labour market slack - Sweden**



Source: Eurostat, LFS [lfsi_sla_q]

Real wages started rebounding in 2024, partly offsetting the substantial losses experienced in previous years. Nominal wage growth is expected to reach 3.2% in 2025, after 4.7% in 2024 and 5.4% in 2023. In 2024, real wages are set to increase by 2.1%, following significant declines in 2022 and 2023 (4.8% and 1.8% respectively). This recovery is expected to continue in 2025, with real wages increasing by 1.7% ([154]). However, expected real wage gains are highly contingent on inflation outturns and the resilience of the labour market in the face of a challenging international macro-financial environment. According to the forecasts this will not be sufficient to fully recoup the purchasing-power losses of 2022 and 2023. In recent years, growth in unit labour costs (ULCs) has generally been in line with most other EU Member States (4.2% in 2022, 6.9% in 2023, 3.7% in 2024), and is set to remain relatively low at 1.9% in 2025.

Part-time employment is falling, but still relatively high. 17.6% of all employed people are in part-time employment, which is slightly above the EU average (17.2%). Importantly, of those, about 22,3% are in involuntary part-time employment. representing an untapped labour reserve, which Sweden would benefit from harnessing. Increasing this group's integration into the job market could also help reduce in-work poverty, the risk of which is much higher in the case of part-time work ([155])(see Annex 11).

The workforce is adapting to the green and digital transitions, with a growing need for skilled workers in the ICT sector ([156]). In 2024, employment in the country's energy-intensive industries accounted for 2.5% of total employment, and jobs in the green economy have expanded. Between 2016 and 2021, employment in the environmental goods and services sector grew from 2.6% to 3.2% of total employment (EU: 2.7%). The job vacancy rate in construction, a key sector for the green transition, is below the EU average (1.7% vs 3.8% in 2023) (for more detail see Annex 12 on the skills shortages for the green transition). The greenhouse gas emission intensity of Sweden's workforce has improved, decreasing from 9.7 tonnes per worker in 2015 to 7.4 tonnes in 2023, far below the EU average of 12.3 tonnes), reflecting good progress in the green transition. The ICT sector is well developed, and Sweden scores well above the EU average as regards ICT specialists. Of all employed people, 8.7% are ICT specialists, among the highest in the EU (4.8%). 6.8% of graduates are ICT graduates, which is also above the EU average (of 4.5%). Even so, there is a need for even more ICT specialists ([157]). Also regarding digital skills, Sweden is above the EU average, both when it comes to basic digital skills of the general population (66.4% vs. 55.6%) and those of workers. 74.9% of workers (age 25-64) have at least basic digital skills (which is much higher than the 66.7% EU average). The Swedish RRP includes an investment of approximately EUR 96 million to add 14 900 additional study places in higher vocational education. 59% of these are expected either to be in the fields of data/IT or to contribute to the digital transition.

([153])The macroeconomic skills mismatch indicator measures the dispersion of employment rates across skill groups (represented by qualification levels, with ISCED 0-2 low; 3-4 medium and 5-7 high). Source: F2 own calculations

([154])Based on the European Commission Autumn 2024 economic forecast.

([155])(at 12.6% compared to 5.4% for full time work).

([156])EURES - Countries and occupations | CEDEFOP

([157])EURES - Countries and occupations | CEDEFOP

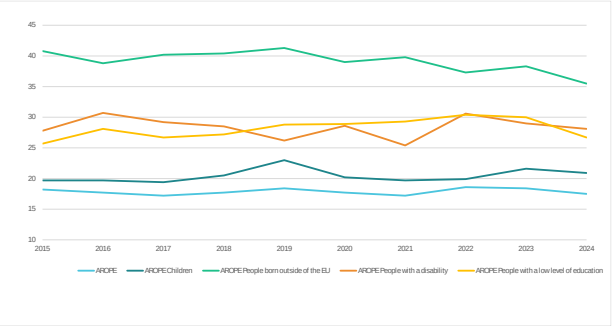
Social protection in Sweden, traditionally very high, continues to steadily deteriorate, in particular for vulnerable groups, ever since the start of records in 2004. Both the rate of people at risk of poverty or social exclusion (AROPE) in general and the rate of children at risk of poverty or social exclusion has increased, as has income inequality. People at risk of poverty are also more likely to live in overcrowded housing and to spend more than 40% of their household income on housing. Addressing these challenges will contribute to inclusive growth and competitiveness.

The social situation in Sweden is deteriorating, although it remains above the EU average. The AROPE rate stood at 17.5% in 2024, still below the EU average (21.3%). However, the gap is narrowing, having been nearly twice as high in 2015. The rate is mainly driven by an increase of the severe material and social deprivation rate, which has more than tripled since 2016 (from 0.7% in 2016 to 3% in 2024). This represents a significant increase, while still remaining among the lowest rates in the EU, and below EU average of 6.8%. The depth of poverty (measured by the risk of poverty gap) increased by 2.5 pps in 2023 compared to the previous year and stood above EU average for the first time (24% vs EU average 23%). The impact of social transfers (excluding pensions) on poverty reduction has been on a downward trend (albeit with some fluctuations) since 2014. In 2023, it was still above EU average (36.9% vs 34.7% respectively), but down 7.6 pps from 2021, and down 30 pps since 2005. The Swedish European Social Fund Plus (ESF+) programme will invest around EUR 21 million to help reduce the risk of financial vulnerability and contribute to an inclusive society.

Increased efforts are needed to maintain the national poverty reduction target by 2030. The absolute number of people at risk of poverty or social exclusion has decreased from 1 879 000 people in 2019 to 1 843 000 in 2024. This is a decrease of 36 000 people, compared to the national target of reducing the number of people at risk of poverty or social exclusion by 15 000 people by 2030. While Sweden looks likely to achieve its relatively modest 2030 target, efforts will need to be intensified to ensure sufficient progress.

Vulnerable groups are particularly affected by poverty and social exclusion. In particular, people who are born outside the EU have a much higher risk of poverty or social exclusion, with a gap of 25.5 pps compared to those born in Sweden (38.3% vs 12.8% respectively). This is compared to an EU average gap of 20.9 percentage points (39.2% for those born outside of the EU vs 18.3% for people born in Sweden). The indicators also show that people with a low level of education ([158]) also have a higher risk of poverty or social exclusion compared to those with a higher level of education ([159]) (30% vs 11.5% respectively). The risk of poverty or social exclusion for persons with disabilities (aged sixteen years or over) is also slightly above the EU average (29% vs 28.8%), and significantly higher than the AROPE rate for persons without any disabilities (15.1%).

Graph A11.1: **Share of people at risk of poverty or social exclusion (AROPE) (%) for different population groups**



Source: Eurostat [ilc_peps01n, ilc_peps04n, ilc_peps06n, hlth_dpe010], EU-SILC.

Income inequality continues to rise. Sweden has gone from being one of the most financially equal countries in the EU, to being around the EU average. In 2023, the income of the richest 20% of the population was 4.73 times higher than that of the poorest 20% (EU: 4.72), which is the highest level since 2004. This is largely due to the fact that income from capital has become more important as a share of total household income, while at the same time being strongly concentrated among those with higher incomes. In recent years income tax relief related to work tax credit reforms and income tax decreases have either been general or aimed at lowering the highest marginal tax rates. The wage gap in Sweden remains the lowest in the OECD and the distribution of income from work has even become

([158])ISCED levels 0-2.

([159])ISCED levels 5-8.

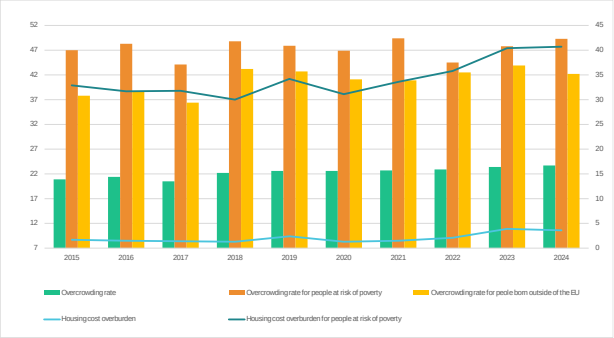
more equal in recent decades, due to more people being employed. In this respect, Sweden differs from many other EU countries, where increasing differences in labour income largely accounts for the development of inequality ([160]).

The risk of poverty or social exclusion among children has increased. Between 2022 and 2023, the AROPE rate for children rose by 1.7 pps, reaching 21.6%. Risks are more pronounced for children in precarious family situations, and for children who have recently migrated to Sweden. The relatively modest child poverty reduction target for 2030 (5 000) has been already achieved, opening room for further efforts. To mitigate the impact of poverty on children, Sweden is implementing the European Child Guarantee (ECG) according to its action plan of March 2022. The 2024 biennial implementation report shows progress has been made in some areas. For example, a scheme to help disadvantaged children with homework, the development of a national health programme for children and young people, parenting support and expanding the home visit programme among younger children in areas with socioeconomic challenges. The implementation of the ECG is supported by the ESF+, including through measures preventing early school drop out and providing organised extracurricular activities for vulnerable children.

Energy poverty in Sweden is relatively low. However, recent energy crises have had a negative impact on energy poverty. In 2023, 5.9% of the population reported being unable to keep their homes adequately warm, which is lower than the EU average of 10.6%, but a significant increase compared to only 1.7% in 2021. Structural issues such as leaks, damp, or rot affected 4.8% of the population, showing an improvement of 2.3 pps from 2021, standing well below the EU average of 15.5%. Sweden is addressing energy poverty through a combination of social welfare policies, including financial assistance for low-income households and housing allowances. Despite the lack of a national definition of energy poverty, Sweden's social policies provide substantial support to vulnerable consumers. However, energy poverty remains an issue due to inflation and rising electricity prices. While Sweden does not have specific national objectives to reduce energy poverty, financial assistance programmes and subsidies are in place to mitigate the impact of high energy prices, including subsidies for energy efficiency improvements and the protection from disconnection for vulnerable households.

Some vulnerable groups are facing potential transport poverty risks. The share of people at risk of poverty who cannot afford a car was higher than the EU average (at 18% in 2023, compared to 15.9% EU). This suggests that transport poverty risks become more pronounced among vulnerable income groups. This is especially the case in rural areas and the northern sparsely populated areas as travel distances are greater, and public transport is sometimes less available due to the vast distances. Moreover, 19.6% of people at risk of poverty spend a very high amount on private transport fuels (defined as twice the national median), above the EU average of 18.3%. At the same time reliance on cars for inland transport has fallen over time, from 83.8% in 2011 to 81% in 2022.

Graph A11.2: **Housing situation (housing cost overburden and overcrowding rate)**



Source: Eurostat [ilc_lvho05a, tessi163, ilc_lvho16], EU-SILC.

High housing costs negatively impact living standards. In 2023, 10.9% of the population faced housing costs above 40% of their total disposable household income, which is above the EU average of 8.8%. For people experiencing poverty risks, this housing cost overburden rate is among the highest in the EU, driven by limited access to affordable housing. The housing cost overburden rate for this group increased by 4.6 pps from 2022 to 2023, reaching 47.4%, which is significantly above the EU average of 33.5%. Housing cost overburden rates are considerably higher in cities than in rural areas (13.2% vs 8.2%). In 2023, 16.4% of people lived in an overcrowded household (EU: 16.8%). For people at risk of poverty this share rose to 40.8%, standing high above the EU average of 29.7%. A

([160])Ekonomisk ojämlikhet i Sverige, Översikt av fakta och framtidsutmaningar. Finanspolitiska rådet, 2024.

much larger share of people born outside the EU also live in overcrowded household compared to those born in Sweden (36.7 vs 9.7% respectively). The Swedish recovery and resilience plan (RRP) has invested EUR 296 million to increase the supply of new rental dwellings with a lower rent to relieve the housing shortage. Among the surveyed in 2023([161]), 9.1% reported having faced housing difficulties at least once in the past, with this percentage being significantly higher for AROPE population (16.8%).([162]) According to the latest available data from service providers, a total number of 27 383 people were facing homelessness in Sweden in 2023 ([163]). The country is implementing a National Strategy to Combat Homelessness 2022-2026 that introduces the 'Housing First' method nationwide ([164]).

House price increases have moderated following years of high price growth. House prices have increased by 23% since 2015 in nominal terms. After years of high increases, they started to moderate in 2022 due to higher interest rates, with mortgage interest rates increasing from 1.4% in 2021 to 4.3% in 2023. The prevalence of long mortgage maturities, short-fixed rate periods, and limited mortgage amortisation requirements increases the sensitivity of households' borrowing capacity to changes in interest rates. In 2023, nominal house prices dropped by 5.3%. They were estimated to be overvalued by 15-20%, which is roughly 5 pps less than the previous year. House prices continued to fall in 2024, albeit at a slower pace (0.8% year-on-year in Q2-2024). At the same time, continued house price moderation seems unlikely as supply constraints remain, incomes are growing and borrowing costs are declining while the regulated rental market is hardly an alternative for housing acquisition. The impact of the ongoing adjustment was also significant for the construction sector, with a fall in obtained building permits of 21.6% and 55.1% in 2022 and 2023, respectively. In terms of financial stability, in February 2024, the ESRB concluded that the residential real estate market in Sweden was liable to high risks and the macroprudential policy mix was appropriate but only partially sufficient to mitigate the situation.

Overall Housing affordability remains an issue as supply struggles to respond to population growth, despite recent improvements.. While prices partially reflect fiscal incentives for mortgage debt, they also emerge from supply constraints amid demographic pressure, in particular in the three largest cities. House price growth exceeded household income growth over a long period, but affordability has improved more recently. The standardised house price-to-income ratio increased from 2015 to 2021 (+12%), raising concerns about the affordability of housing. It has eased since then and reverted to its 2015 level, which is still 13% above its long-term average, with possible structural implications for the domestic economy. Considering the cost of mortgages, the borrowing capacity of households worsened slightly over the past decade but remains higher than in most other EU countries. However, this is underpinned by the very low maturity of mortgage loans with very limited repayments of the principal loan. Having rather large rental market, the ratio of new rents to incomes increased only marginally over the last decade. The pace of dwelling completions has improved since the 2010s, but still barely manages to keep pace with dynamic population growth (+10% over the last ten years). Amid a general market downturn, residential building permits have decreased substantially since 2021, which could indicate limited new housing supply looking ahead.

([161])EU-SILC (The EU statistics on income and living conditions module on housing difficulties)

([162])Eurostat, data code ilc_lvhd01

([163])Kartläggning av hemlösheten 2023, Socialstyrelsen 2024

([164])The Government's strategy to combat homelessness 2022–2026 - Regeringen.se

The Swedish school system is recording worsening educational outcomes and is not able to sufficiently compensate for students' diverse backgrounds. This is evidenced notably by the general decline in basic skills since 2018, the high incidence of pupils leaving lower and upper secondary education without sufficient grades, and the strong influence of socio-economic and migrant background on education outcomes. Ultimately, this may hamper human capital formation and Sweden's future competitiveness. Teacher shortages represent a key challenge impacting the overall quality of education. Steps are being taken to ensure that vocational education and training (VET) better meet the needs of the labour market, and to increase interest in STEM careers.

Education outcomes are declining, hampering skills development and competitiveness. According to PISA 2022, Swedish students perform better than their European peers with underachievement rates slightly lower than the EU average in mathematics (27.2% vs EU average of 29.5%), reading (24.3% vs EU average of 26.3) and science (23.7 vs EU average of 24.2%). However, underachievement has increased since 2018, in all three domains, reversing the positive trend observed between 2012 and 2018. The performance drop is among the largest in the EU: 8.4 percentage points (pps) in mathematics, 5.9 pps in reading, and 4.7 pps in science ([165]). While the share of top performers is still higher than the EU average (7.9%) it has decreased in both mathematics (by 2.6 pps to 10%) and reading (by 3.1 pps to 10.2%). At 7.2% in 2024, early leaving from education and training is decreasing and is below the EU-level target of 9% but remains higher for those with a migrant background (12% vs 5.9%) ([166]).

Teacher shortages put the quality of education at risk. More than a third of school principals report shortages or poorly qualified teaching and assisting staff. In 2023/2024, only 71.5% of teachers in compulsory schools were qualified in at least one of their subjects, and in upper-secondary 84.2%. Disadvantaged schools ([167]) have a lower share of qualified teachers (81% vs 91% for advantaged schools). The ageing of the teacher workforce combined with the low attractiveness of the profession risk further aggravating shortages. More than one third of teachers in Sweden are aged 50 and above ([168]) and will retire in the next decade. The Swedish National Agency for Education's expects that more than 10 000 additional teachers and early childhood education and care (ECEC) staff will be needed by 2038. Teachers are facing heavy administrative burden and challenging working conditions, which negatively affect the attractiveness of the profession. To increase quality of teachers' education, Sweden is working to increase admission requirements, strengthen the initial teacher education of subject teachers, and focus more on subject knowledge, cognitive science and pedagogy in educational content.

Students with a migrant or disadvantaged background are more likely to underachieve in basic and digital skills. According to recent analysis, the Swedish school system is facing challenges to compensate for students' diverse conditions and backgrounds. In 2022, 4 out 10 students from disadvantaged backgrounds (44.4%) did not reach a minimum proficiency level in mathematics. While this is below the EU average of 48.0%, it represents a major increase of 11.7 pps since 2018, when it stood at 32.8%. Students with a migrant background more often have a low socio-economic status (48.2% vs 25% for students in general), and their performance gap compared with native-born students is significant, particularly in mathematics. Half of foreign-born students (52.3%) and four out of 10 native-born students with parents born abroad (40.3%) do not reach a minimum proficiency level in mathematics. Their underachievement rates are among the highest in the EU, while those of students without a migration background is significantly lower at 20.1% ([169]). Moreover, students with a migrant background face more challenges in achieving the threshold for essential digital literacy skills compared to their native-born

([165])OECD (2023), PISA 2022 Results (Volume I).

([166])Eurostat edat_lfse_02.

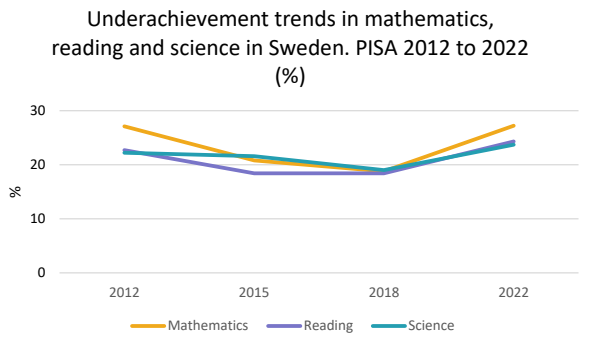
([167])According to the OECD, disadvantaged schools are those where the socio-economic profile of the school is statistically significantly below the socio-economic status of the country's/economy's mean socio-economic status.

([168])OECD (2024), Education at a Glance 2024 - Country notes: Sweden.

([169])The gap between students without migrant background and foreign-born students stands at 32.2 pps, which shrinks to 20.6 pps for native-born students with foreign-born parents.

peers ([170]). One in five students in Sweden has a migrant background, one of the highest proportions in the EU (21.3%) and three out of four do not speak the language of tuition at home.

Graph A12.1: **Underachievement trends in mathematics, reading and science in Sweden. PISA 2012 to 2022 (%)**



Source: OECD

Enhancing Swedish language acquisition from an early age is essential for greater school success. However, children with a migrant background participate less in ECEC than native-born children and this difference is most pronounced for children born abroad ([171]). Moreover, ECEC staff qualification is low: in 2022, only 40% of ECEC staff were qualified ECEC teachers.

Progression to upper secondary school is a challenge for a significant share of students, in particular for those from disadvantaged backgrounds. Students' grades are the main instrument for selection and admission into upper secondary and higher education. In 2022, 15% of all the students had compulsory school grades too low to qualify for the national upper secondary education programme. The problem is partly linked to the decline in student performance. However, disparities in grade attributions can also be noted between schools, as the way grades are attributed varies across schools and teachers, with independent schools being on average more generous in their grading ([172]). In February 2025, an inquiry presented proposals to address grade inflation and ensure that grades fairly reflect pupils' knowledge, aiming to reduce the share of those leaving education without sufficient grades and to give more equal chances to continue to the next level of education ([173]). Greater heterogeneity in the classrooms could also help address the educational disadvantage of learners with a migrant background. While the PISA isolation index is low for disadvantaged students (0.13) compared to the EU average, for students with a migrant background it is one of the highest in the EU (0.22), which shows that they are more likely to be concentrated in certain schools. Disadvantaged schools also struggle more with the shortage of qualified teachers. Moreover, students with disadvantaged background are underrepresented in independent schools, where pupils are found to have better chances of qualifying for upper secondary school ([174]).

Several measures are in place to facilitate access to analogue learning. Since July 2024, students in compulsory school, upper secondary school and municipal adult education have the right to free access to textbooks and other learning materials. In 2025, further amendments to the Education Act have been introduced to ensure that all pupils from preschool classes to upper secondary school will have access to staffed school libraries ([175]). In 2024, artificial intelligence was introduced as a subject in upper secondary schools and municipal adult education, to support students in developing knowledge of its core concepts and applications.

Challenges related to the labour market relevance of VET remain. The share of learners enrolled in vocational programmes out of total upper secondary learners is low, at 35.5% in 2022, and below the EU average (49%). Although it has decreased since 2021, Sweden still has one of the highest employment rates for young people recently graduated from VET, at 86.2%, above the EU average of 81%. In 2023, 65.7% of recent VET

([170])As reported in the International Computer and Information Literacy Study (2023), Sweden displays significant gaps (34.8 points), compared to the EU average (28.5), leaving migrant students below the threshold for essential digital literacy skills (Level 2).

([171])The participation rate of native-born children for three year-olds is at 96%, while it is at 75% for children born abroad and 90% for children with two foreign-born parents.

([172])Swedish National Agency for Education (2023): Assessment of the situation in the school system 2023; and (2019): Analyses of equal grading between student groups and schools.

([173]) An equivalent grading system - Regeringen.se

([174])Swedish National Agency for Education (2023) - Assessment of the situation in the school system 2023.

([175]) EUR 19 million is to be earmarked for this purpose for 2025, followed by EUR 38 million annually.

graduates had work-based learning experience, above the EU-level average of 64.5%. The VET system faces a high risk of skills mismatch between labour market needs and graduates' qualifications. This is due to decentralised provision and learners' choice influencing the offer of VET programmes. Sweden has made recent changes to combat this and consider labour market needs during the planning, dimensioning and offer of upper secondary education, to ensure that skills supply meets demand in the regional and national labour market. Municipalities must also collaborate with at least two other municipalities on planning, streamlining and offering a specific education programme. The Swedish recovery and resilience plan has also invested in VET with more than 68 000 new places created in regional adult vocational education.

Tertiary attainment is high, but the number of STEM graduates falls short of meeting the growing demand. Between 2014 and 2024, the share of young people between 25 and 34 with a tertiary qualification increased by 8.4 pps. At 54.4%, Sweden is well above the EU average of 44.2%, and the EU-level target of 45%. The level varies within the country, leading to imbalances in the availability of highly qualified people across regions: it is lower in the northern regions ([176]) and in rural areas (36.5%), and much higher in cities (67.7%) ([177]). Students' educational attainment and likelihood of successfully completing their studies depends on parental educational background ([178]). While there is interest in STEM among young people in Sweden, it needs to increase to meet the increasing demand in STEM fields linked to the green and digital transitions. According to a recent report by UKÄ, by 2040 Sweden will need more enrolments in engineering and chemistry programmes**.** In 2022, the share of students enrolled in STEM subjects out of total tertiary enrolments in Sweden was 28.4%, against the EU average of 27.1%. Although Sweden's population has a good level of digital skills ([179]), Swedish companies report that it is difficult to recruit ICT specialists, while the demand remains strong ([180]). In 2022, the share of students enrolled in ICT subjects was in line with the EU average (5.1% vs EU average of 5.2%), 31.7% of whom were women. The share of STEM PhD enrolments ([181]) in 2022 was 43%. The number of new doctoral graduates in STEM has gradually declined since 2017 (-46.3% points) ([182]).

Sweden is taking steps to boost studies in STEM fields. In February 2025, the government presented a STEM strategy aimed at providing people with solid skills and increasing the number of students in STEM in higher education, higher vocational education and upper secondary education**.** It sets objectives to increase the share of pupils studying in science and technology programmes by 2035 and that at least 15% of students achieve high results in mathematics in PISA by 2033. A delegation will be now looking into how to increase the proportion of women in STEM.

The development of green competences and skills is encouraged across all educational levels and sectors. Eighth grade (average age 14-15) students' knowledge of sustainability is one of the best among the EU countries, but strongly affected by gender and parents' educational attainment ([183]). However, only 32.2% of schools report that nearly all eighth-grade students have participated in activities related to environmental sustainability (EU-17 average: 48%). Learning for sustainability features explicitly in higher education curricula and is required for some degrees. Half of VET upper secondary programmes also contain learning content on sustainability related to the relevant profession.

Skills development is crucial for competitiveness, resilience and fairness, especially in light of skills shortages and increased unemployment. Although the Swedish labour market features relatively low macroeconomic skills mismatches, labour shortages persist in highly-skilled occupations

([176])Eurostat: edat_lfse_04.

([177])Eurostat: edat_lfs_9913. UKÄ points to regional disparities in the transition to higher education.

([178])61% of students with at least one parent with tertiary attainment successfully completed their tertiary studies within three years of the theoretical end of the programme, while only 55% of students whose parents had less than upper secondary education did so. OECD Education at a Glance 2024 - Country note: Sweden.

([179])In 2023, 66.4% of people between the ages 16 and 74 had at least basic digital skills.

([180])They estimate that the number of ICT specialists will have to increase by 18 000 annually until 2028.

([181]) As a share of total PhD enrolments.

([182]) See also Annex 3 - Innovation to business.

([183])Children whose parents have a high level of educational attainment score 108.5 points higher than those from low education backgrounds (EU-17 average: 76.3).

such as ICT professionals and care workers. Sweden has one of the highest unemployment rates for people with low levels of qualifications (24.6% vs 11.9% EU average), and among the long-term unemployed (12 months or more) those with short educational background are over-represented ([184]), suggesting a need to upskill the labour force to combat rising unemployment. With support from the EU's Technical Support Instrument, Sweden is strengthening the governance of its skills system, to improve cooperation in the area of skills and to address skills mismatches in a coordinated and efficient way.

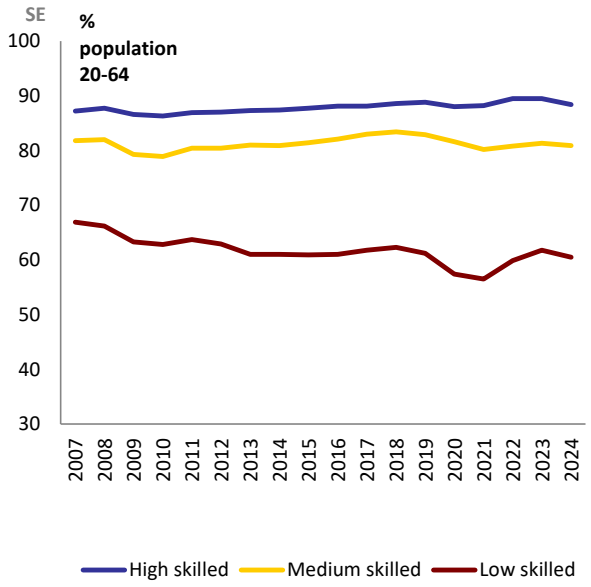
The development of green skills is particularly critical for the green transition. There are major ongoing investments and focus on the green transition in the north of Sweden, with new companies launching in the region and existing industries rebuilding and expanding the production of fossil-free steel, battery manufacturing and fossil-free mining. This transition will bring many new jobs to the north, and a large part of these will be knowledge-intensive and require highly qualified skills.

There is a broad need for green skills across all skill levels. In 2024, labour shortages were reported in several occupations requiring specific skills related to the green transition, including garbage and recycling collectors, insulation workers, and plumbers and pipe fitters ([185]). However, 85% of the Swedish public believes that they have the necessary skills to contribute to the green transition, the highest share in the EU and significantly above the EU average of 54% ([186]).

Sweden has a record high participation in adult learning. The high level of adult learning is likely partly due to the long-established tradition of adult education in Sweden, with broad access to folk high schools and study associations, etc. In 2022, 66.5% of the adult population participated in adult learning, the highest participation rate in the EU, significantly above the EU average of 39.5% ([187]). Participation increased from 58.8% in 2016 and this means that Sweden already has achieved its 2030 adult learning target of 60% participation.

While all demographic groups had among the highest adult learning rates in the EU, participation varied by demographic group. For example, those with higher levels of education participated more (78.6%) than those with medium (62.9%) or lower levels of education (47.1%). Those living in cities also had higher levels of participation (70.2%) than those living in towns and suburbs (64.2%) or rural areas (62.2%). Younger workers (25-34 years) had higher levels (70.8%) compared to other age groups (35-44: 70%; 45-54: 68.4%; 55-64: 55.7%).

Graph A12.2: **Employment rate by educational attainment (annual) - Sweden**



(1) Employment rates ages 20-64 (% of population)
Source: Eurostat, LFS [lfsa_ergaed]

([184])Arbetsförmedlingen: Arbetsmarknadsutsikterna hösten 2024.

([185])European Labour Authority, 2025: EURES Report on labour shortages and surpluses 2024, based on data from EURES National Coordination Offices. Skills and knowledge requirements align with the ESCO taxonomy on skills for the green transition, with examples analysed using the ESCO green intensity index.

([186])Special Eurobarometer 527: Fairness perceptions of the green transition.

([187])Data in this paragraph from the Adult Education Survey 2022, special extraction excluding guided-on-the-job training.

Table A13.1:**Social Scoreboard for Sweden**

Social Scoreboard for Sweden		
Equal opportunities and access to the labour market	Adult participation in learning (during the last 12 months, excl. guided on the job training, % of the population aged 25-64, 2022)	66,5
	Early leavers from education and training (% of the population aged 18-24, 2024)	7,2
	Share of individuals who have basic or above basic overall digital skills (% of the population aged 16-74, 2023)	66,4
	Young people not in employment, education or training (% of the population aged 15-29, 2024)	6,3
	Gender employment gap (percentage points, population aged 20-64, 2024)	4,0
	Income quintile ratio (S80/S20, 2024)	4,34
Dynamic labour markets and fair working conditions	Employment rate (% of the population aged 20-64, 2024)	81,9
	Unemployment rate (% of the active population aged 15-74, 2024)	8,4
	Long term unemployment (% of the active population aged 15-74, 2024)	1,7
	Gross disposable household income (GDHI) per capita growth (index, 2008=100, 2023)	118,6
Social protection and inclusion	At risk of poverty or social exclusion (AROPE) rate (% of the total population, 2024)	17,5
	At risk of poverty or social exclusion (AROPE) rate for children (% of the population aged 0-17, 2024)	20,9
	Impact of social transfers (other than pensions) on poverty reduction (% reduction of AROP, 2024)	40,6
	Disability employment gap (percentage points, population aged 20-64, 2024)	22,9
	Housing cost overburden (% of the total population, 2024)	10,6
	Children aged less than 3 years in formal childcare (% of the under 3-years-old population, 2024)	57,7
	Self-reported unmet need for medical care (% of the population aged 16+, 2024)	2,2

Critical situation	To watch	Weak but improving	Good but to monitor	On average	Better than average	Best performers

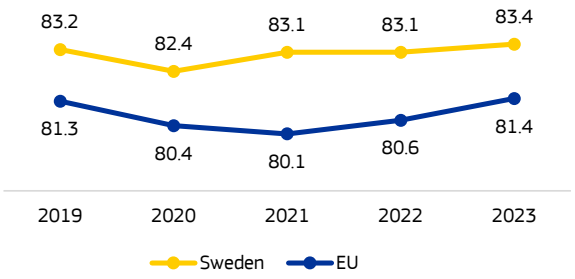
(1) Update of 5 May 2025. Members States are categorised based on the Social Scoreboard according to a methodology agreed with the EMCO and SPC Committees. Please consult the Annex of the Joint Employment Report 2025 for details on the methodology (https://employment-social-affairs.ec.europa.eu/joint-employment-report-2025-0).

Source: Eurostat

Sweden's health system performs well, with high life expectancy at birth linked to low levels of treatable and preventable mortality. However, the country continues to face shortages of healthcare workers (general practitioners and advanced practice primary care nurses in certain regions) and an uneven geographical distribution of healthcare resources. These issues are countered by the country's relatively sound funding of the health system.

Life expectancy at birth in Sweden is among the highest in the EU, after rebounding above its pre-COVID-19 level in 2023. There is a gender gap, however, with women expected to live 3.3 years longer than men. That said, women can expect to live 2.2 years less than men in good health. In 2022, the leading causes of death were cardiovascular diseases followed by cancer and respiratory diseases. The Swedish government announced an updated national dementia strategy on 23 January 2025, covering healthcare, dental care and social services ([188]). Compared to other EU countries, Sweden had very low rates of mortality from preventable and treatable causes in 2022. This indicates that the public health and health systems are highly effective. The low rate of preventable mortality is largely due to low rates of premature deaths from lung cancer and cardiovascular diseases. However, a specific cause for concern is Sweden's comparatively high death rate due to suicide. Although the suicide rate has decreased in Sweden since 2005, and remains broadly in line with the 2011 rate, it is above the EU average, especially for women.

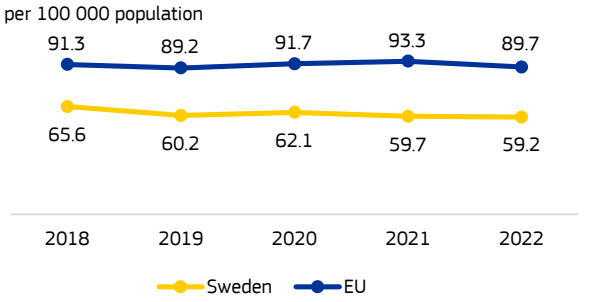
Graph A14.1: **Life expectancy at birth, years**



Source: Eurostat (demo_mlexpec)

Sweden's health system is characterised by high-functioning healthcare service delivery, with a focus on primary care. In 2022, health spending per inhabitant was among the highest in the EU, with the largest share going to outpatient and long-term care (33.3% and 26.0% of total health expenditure respectively). Approximately 86% of current health expenditure was funded by the public purse. This, together with a low number of hospital beds (150 per 100 000 population in 2022, the lowest in the EU), illustrates Sweden's strongly outpatient-centred care model. Out-of-pocket payments account for a smaller proportion of spending on health in Sweden than the EU average. Nearly half of all out-of-pocket payments are for outpatient pharmaceuticals ([189]). The government is proposing to increase as of 1 July 2025 by about 30% the maximum level (from SEK 2900 to SEK 3800) above which pharmaceuticals become free of charge ([190]). Spending on primary care health services as a share of current health expenditure is close to the EU average for dental care, prevention and general outpatient care ([191]). Regarding access to primary care, 24% of respondents in a 2024 survey ([192]) declared unmet needs by a general practitioner (GP) or health centre, compared to an EU average of 14%.

Graph A14.2: **Treatable mortality**



Age-standardised death rate **(mortality that could be avoided through optimal quality healthcare)**
Source: Eurostat (hlth_cd_apr)

Regarding public health, there is scope for Sweden to increase its focus on disease prevention. In 2022, spending on prevention accounted for 3.6% of total spending on health in

([188])https://www.regeringen.se/pressmeddelanden/2025/01/regeringen-har-presenterat-en-utvecklad-nationell-demensstrategi

([189])OECD/European Commission (2024), Health at a Glance: Europe 2024 - State of Health in the EU Cycle, pp. 186-187.

([190])https://www.regeringen.se/contentassets/8caa230fecb646cd80a54dfb06c1d096/prop.-2024-25-144.pdf

([191])Health at a Glance: Europe 2024, pp. 151.

([192])Living and Working in the EU e-survey | European Foundation for the Improvement of Living and Working Conditions

Table A14.1:**Key health indicators**

	2019	2020	2021	2022	2023	EU average* (latest year)
Cancer mortality per 100 000 population	216.7	214.1	206.6	205.0	n.a.	234.7 (2022)
Mortality due to circulatory diseases per 100 000 population	272.0	267.3	257.1	258.7	n.a.	336.4 (2022)
Current expenditure on health, purchasing power standards, per capita	3 831	3 930	4 237	4 363	n.a.	3 684.6 (2022)
Public share of health expenditure, % of current health expenditure	85.1	86.2	86.1	86.0	86.2	81.3 (2022)
Spending on prevention, % of current health expenditure	3.2	3.4	4.3	3.6	n.a.	5.5 (2022)
Available hospital beds per 100 000 population**	166	165	160	150	n.a.	444 (2022)
Doctors per 1 000 population*	4.3	4.3	4.4	n.a.	n.a.	4.2 (2022)*
Nurses per 1 000 population*	10.9	10.7	10.9	n.a.	n.a.	7.6 (2022)*
Mortality at working age (20-64 years), % of total mortality	10.9	10.1	10.7	10.0	10.1	14.3 (2023)
Number of patents (pharma / biotech / medical technology)	290	280	285	192	268	29 (2023)***
Total consumption of antibacterials for systemic use, daily defined dose per 1 000 inhabitants****	11.8	10.3	10.1	11.2	n.a.	20.0 (2023)

*The EU average is weighted for all indicators except for doctors and nurses per 1 000 population, for which the EU simple average is used based on 2022 (or latest 2021) data except for Luxembourg (2017). Doctors' density data refer to practising doctors in all countries except Greece, Portugal (licensed to practise) and Slovakia (professionally active). Density of nurses: data refer to practising nurses (EU recognised qualification) in most countries except France and Slovakia (professionally active) and Greece (hospital only). **'Available hospital beds' covers somatic care, not psychiatric care. ***The EU median is used for patents.
Source: Eurostat database; European Patent Office; ****European Centre for Disease Prevention and Control (ECDC) for 2023.

Sweden, far below the EU average of 5.5%. Between 2019 and 2021, as a result of COVID-19, Sweden reported a remarkable increase in spending on immunisation programmes, epidemiological surveillance and risk and disease control programmes. Also related to public health, Sweden had among the lowest rates of antibiotic consumption in the community and hospital sectors in the EU in 2022. Consumption had been gradually decreasing over the past decade - a trend that continued during the pandemic. This reflects Sweden's comprehensive approach to addressing antimicrobial resistance, further boosted by its updated national strategy for 2020-2025 aimed at preserving the possibility of effective treatment of bacterial infections in humans and animals. However, there is room for improvement on certain risk factors, as daily consumption of fruit and vegetables in Sweden is below the EU average and the regular use of vaping products by young adults (15–24-year-olds) is above the EU average, whereas for other behavioural risk factors Sweden fares comparatively well.

Sweden has a high density of doctors and nurses per inhabitant, with some regional disparities. For several years, doctor density in Sweden has been above the EU average (4.4 per 1 000 population in 2022 vs 4.2), with a greater concentration in the capital region of Stockholm and other major cities than in remote and sparsely populated regions. Although the number of physician graduates per 100 000 inhabitants is below the EU average, the number of doctors has increased since 2000, driven in part by an increasing number of foreign-trained doctors. The number of Swedish doctors who trained abroad has quadrupled since 2006, mainly due to limited capacity in domestic medical schools. Despite the increasing density of doctors, several regions report shortages of GPs. The share of GPs in Sweden is lower than the EU average.

The density of nurses has remained stable in the last decade. However, several regions report shortages, particularly of specialist (advanced practice) nurses in primary care. Moreover, more than a quarter (over 30%) of the nursing workforce is aged over 55, which raises concerns about the sustainability of workforce numbers. Sweden has not earmarked funding for health under its recovery and resilience plan (RRP) but the RRP includes a reform on regulating the professional title of nursing assistants in healthcare settings and in the long-term care sector. The RRP also includes an investment to improve the skills of staff working in elderly care centres.

Sweden's health system contributes significantly to innovation and industrial development in the EU medical sector. Sweden is among the EU countries that report considerable public spending on health research and development (R&D) ([193]), alongside substantial R&D budget outlays from undertakings (multinationals) headquartered in Sweden. This is also reflected in the very high number of European patents granted: 268 in 2023 in the combined areas of pharmaceuticals, biotechnologies and medical technologies ([194]), above the EU-level

([193])For further details, see Annex 3.
([194])European Patent Office, Data to download | epo.org.

median of 29. Clinical trial activity is widespread ([195]).

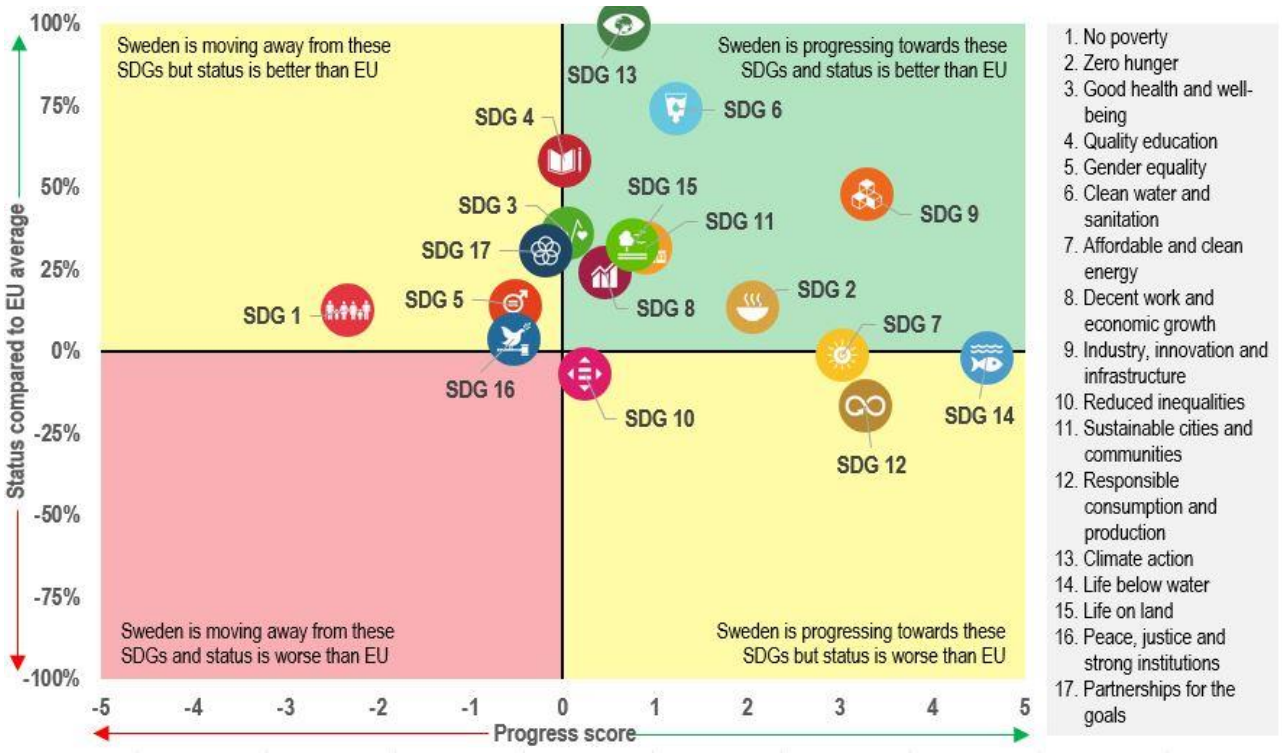
Sweden aims to scale up the digitalisation of its health system, **with support from EU programmes.** The shares of people accessing their personal health records online and using telemedicine instead of in-person consultations in Sweden are both among the highest in the EU. Sweden is planning to invest in e-health services and applications under the 2021-2027 cohesion policy funds.

([195])EMA (2024), Monitoring the European clinical trials environment, p. 9.

This Annex assesses Sweden's progress on the Sustainable Development Goals (SDGs) along the dimensions of competitiveness, sustainability, social fairness and macroeconomic stability. The 17 SDGs and their related indicators provide a policy framework under the UN's 2030 Agenda for Sustainable Development. The aim is to end all forms of poverty, fight inequalities and tackle climate change and the environmental crisis, while ensuring that no one is left behind. The EU and its Member States are committed to this historic global framework agreement and to playing an active role in maximising progress on the SDGs. The graph below is based on the EU SDG indicator set developed to monitor progress on the SDGs in the EU.

Sweden performs well on SDGs related to *competitiveness* (SDGs 4, 8, 9). Sweden continues to perform above the EU average in terms of its productivity indicators. Sweden's share of gross domestic expenditure on R&D (SDG 9) remains high at 3.60% of GDP in 2023, standing well above the EU average 2.24% of GDP. In addition, 2.25% of the labour force population worked in R&D in Sweden in 2023, representing a significant rise from 1.77% in 2018, and exceeding the EU average of 1.56% in 2023. Patent applications to the European Patent Office (EPO) increased to 405 per million inhabitants in 2024, up from 391 in 2018, exceeding the EU average of 156 applications per million inhabitants in 2024. Furthermore, on SDG 8 (Decent work and economic growth) Sweden performs above the EU average for most indicators with a high investment share of GDP (24.4% in 2024 compared to the EU average of 21.7%) and high rates of employment (81.9% in 2024 vs the EU average of 75.8%). On SDG 4 (Quality education), Sweden has a high tertiary attainment rate (54.4% vs the EU average of 44.2% in 2024). Sweden also performs well on adult participation in learning (37.5%; EU average: 13.3% in 2024) and has a high share of adults with at least basic digital skills (66.4% in 2023). To strengthen digital skills

Graph A15.1: **Progress towards the SDGs in Sweden**



For detailed datasets on the various SDGs, see the annual Eurostat report 'Sustainable development in the European Union'; for details on extensive country-specific data on the short-term progress of Member States: Key findings – Sustainable development indicators - Eurostat (europa.eu). A high status does not mean that a country is close to reaching a specific SDG, but signals that it is doing better than the EU on average. The progress score is an absolute measure based on the indicator trends over the past five years. The calculation does not take into account any target values, as most EU policy targets are only valid for the aggregate EU level. Depending on data availability for each goal, not all 17 SDGs are shown for each country.

Source: Eurostat, latest update of 28 April 2025. Data refer mainly to the period 2018-2023 or 2019-2024. Data on SDGs may vary across the report and its annexes due to different cut-off dates.

and increase human capital, the RRP sets out measures to increase the number of study places in higher vocational education and ensure resources for universities and other higher education institutions. The recovery and resilience plan (RRP) also provides funding for investment in broadband expansion.

Sweden performs well on most of the SDGs related to *sustainability* (SDGs 2, 6, 7, 9, 11, 13, 15), but needs to catch up with the EU average on others (SDGs 12 and 14). Sweden performs very well on SDG 13 (Climate action), with net greenhouse gas emissions of 1.2 tonnes per capita in 2023, standing well below the EU average (6.8 tonnes in 2023). The share of renewable energy in gross final energy consumption (SDG 7) increased from 53.9% in 2018 to 66.4% in 2023, which is significantly above the EU average (24.6% in 2023). For SDG 9 (Industry, innovation and infrastructure), Sweden scores above the EU average on all indicators. The circular material use rate (SDG 12) improved significantly increasing from 6.6% in 2018 to 9.9% in 2023. However, it remains below the EU average (11.8% in 2023). On SDG 14 (Life below water), despite having 16% of its marine area protected (higher than the EU average of 12.3%), Sweden stands below the EU average on the percentage of bathing sites with excellent water quality (68.4% in 2023 compared to the EU average of 88.8%). Sweden performs well on several targets for SDG 11 (Sustainable cities and communities), particularly related to quality of life in cities and communities. Despite some indicators remaining above the EU average, the trajectory over the past years has been negative. This is true for sustainable mobility (share of buses and trains in total passenger transport fell to 19% in 2022 from 19.6% in 2017, albeit remaining above the EU average of 16.6% in 2022). In addition, the recycling rate of municipal waste dropped from 45.8% in 2018 to 39.3% in 2023 (EU average: 48.2% in 2023). Sweden's RRP supports the acceleration of the green transition of carbon-intensive sectors such as transport and industry.

Sweden performs well on most SDGs related to *social fairness* (SDGs 3, 4, 5, 7, 8, 10), but is moving away from the SDGs on SDG 1. Sweden continues to perform above the EU average on most indicators for SDG 3 (Good health and well-being). Although the share of early leavers from education and training (SDG 4) increased from 6.5% in 2019 to 7.2% in 2024, it remains below the EU average (EU average of 9.3% in 2024). On SDG 5 (Gender equality) and SDG 8 (Decent work and economic growth), Sweden performs better than the EU average. On SDG 10 (Reduced inequalities), the gap between EU and non-EU citizens in terms of employment rates has dropped (from 29% in 2019 to 19.1% in 2024) but falls short of the EU average (12.5% in 2024). On SDG 1 (No poverty), several indicators have followed a negative trajectory, though most indicators remain above the EU average. Sweden's RRP includes measures to increase the number of study places in universities and other higher education institutions, as well as in higher vocational education and training at upper secondary level.

Sweden performs well on most SDGs related to *macroeconomic stability* (SDGs 8, 16 and 17). Sweden performs well across the indicators for SDG 8, including on sustainable economic growth, employment and decent work, while at the same time reducing general government gross debt (SDG 17) from 35.7% of GDP in 2019 to 33.5% in 2024. This stands significantly lower than the EU average of 81% of GDP in 2024. On SDG 16 (Peace, justice and strong institutions), Sweden performs above the EU average for most indicators. The share of the population who perceive the independence of the justice system to be very or fairly good is high at 78% in 2024 (EU average: 52% in 2024). The RRP aims to help preserve the sustainability of the Swedish economic model, and therefore contributes to macroeconomic stability through reforms tackling demographic challenges.

As the SDGs form an overarching framework, any links to relevant SDGs are either explained or depicted with icons in the other annexes.

Sweden faces structural challenges in a wide range of policy areas, as identified in the country-specific recommendations (CSRs) addressed to the country as part of the European Semester. They refer, among other things, to the budgetary framework and fiscal governance, taxation policy, housing, skills, vocational education and training, adult learning, non-discrimination and equal opportunities, renewable energy, energy infrastructure and networks, and the business environment.

The Commission has assessed the 2019-2024 CSRs considering the policy action taken by Sweden to date and the commitments in its recovery and resilience plan (RRP). At this stage, Sweden has made at least 'some progress' on 56% of the CSRs ([196]), and 'limited progress' on 29% (Table A16.2).

EU funding instruments provide considerable resources to Sweden by supporting investments and structural reforms to increase competitiveness, environmental sustainability and social fairness, while helping to address challenges identified in the CSRs. In addition to the EUR 3.4 billion funding from the Recovery and Resilience Facility (RRF) in 2021-2026, EU cohesion policy funds ([197]) are providing EUR 1.7 billion to Sweden (amounting to EUR 4 billion with national co-financing) for 2021-2027 ([198]) to boost competitiveness and growth. Support from these instruments combined represents around 1% of 2024 GDP ([199]). The contribution of these instruments to different policy objectives is outlined in Graphs A16.1 and A16.2. This substantial support comes on top of financing provided to Sweden under the 2014-2020 multiannual financial framework, which financed projects until 2023 and has had significant benefits for the economy and Swedish society. Project selection under the 2021-2027 cohesion policy programmes has accelerated and implementation of projects has gained momentum.

The Swedish RRP contains 30 investments and 21 reforms to stimulate sustainable growth, improve its environmental sustainability, digitalisation and foster skills. A year before the end of the RRF timespan, the implementation of Sweden's RRP is delayed. At present, Sweden's first payment request covering 53% of the milestones and targets in its RRP is under assessment ([200]).

Sweden also receives funding from several other EU instruments, including those listed in Table A16.1. Most notably, the common agricultural policy (CAP) provides Sweden with an EU contribution of EUR 4.5 billion under the CAP strategic plan for 2023-2027([201]). A further EUR 485.6 million are available under the Asylum, Migration and Integration Fund (AMIF), together with the border management and visa instrument (BMVI) and internal security funds. Operations amounting to EUR 939 million ([202]) have been signed under the InvestEU instrument backed by the EU guarantee, improving access to financing for riskier operations in Sweden.

([196])12% of the 2019-2024 CSRs have been fully implemented, 17% substantially implemented, and some progress has been made on 27%.

([197])In 2021-2027, cohesion policy funds include the European Regional Development Fund, the European Social Fund Plus and the Just Transition Fund. The information on cohesion policy included in this annex is based on adopted programmes with the cut-off date of 5 May 2025.

([198])European territorial cooperation (ETC) programmes are excluded from the figure.

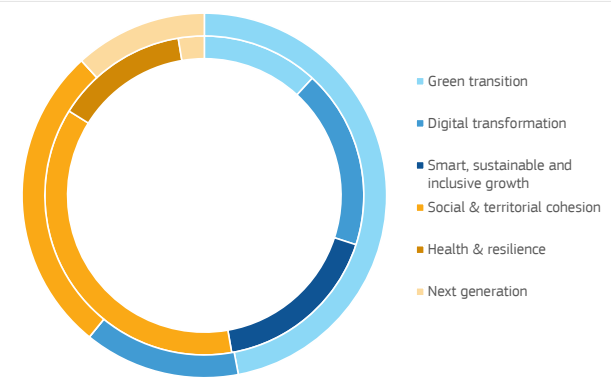
([199])RRF funding includes both grants and loans, where applicable. GDP figures are based on Eurostat data for 2024.

([200])As of mid-May 2025, Sweden has submitted 1 payment request which is under assessment.

([201])An overview of Sweden's formally approved strategy to implement the EU's common agricultural policy nationally can be found at https://agriculture.ec.europa.eu/cap-my-country/cap-strategic-plans/sweden_en

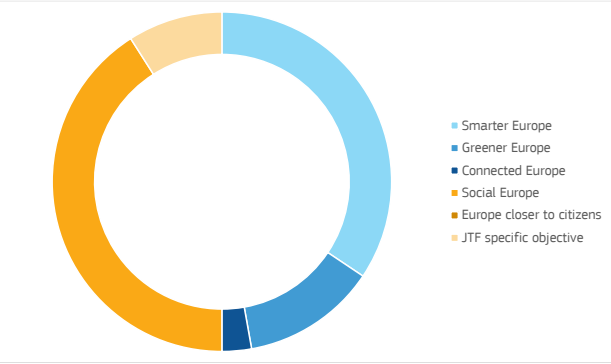
([202])Data reflect the situation on 31.12.2024.

Graph A16.1: **Distribution of RRF funding in Sweden by policy field**



(1) Each RRP measure helps achieve the aims of two of the six policy pillars of the RRF. The primary contribution is shown in the outer circle, while the secondary contribution is shown in the inner circle. Each circle represents 100% of the RRF funds. Therefore, the total contribution to all pillars displayed on this chart amounts to 200% of the RRF funds allocated.
Source: European Commission

Graph A16.2: **Distribution of cohesion policy funding across policy objectives in Sweden**



Source: European Commission

Cohesion policy funds aim to increase the productivity and competitiveness of Swedish firms and improve the business environment. The European Regional Development Fund (ERDF) and the Just Transition Fund (JTF) will support over 23 500 businesses, of which 1 062 are small and medium-sized enterprises (SMEs) investing in skills for smart specialisation, for industrial transition and for entrepreneurship. The ESF+ is identifying the skills needed for the green transition in both the private and the public sectors. 41% of unemployed participants are in employment six months after participation in these measures. The ESF+ is used to explore how labour and skills needs will evolve, examining impacts on work environments and potential inequalities, such as those between remote and on-site workers, the ultimate goal being to ensure an inclusive transition.

Other funds are contributing to competitiveness in Sweden, for instance through open calls. The Connecting Europe Facility (CEF) has financed the construction and upgrade of rail lines, the upgrade of maritime and inland waterway ports, and recharging points for electric vehicles and hydrogen refuelling stations for light and heavy-duty vehicles. The CEF Digital has increased the capacity, resilience and security of backbone infrastructure by developing connectivity with other countries and advanced the deployment of 5G in smart communities. Horizon Europe has supported research and innovation from scientific breakthroughs to scaling up innovations, with the European Research Council and Climate, Energy and Mobility as top priorities in Sweden. The Technical Support Instrument (TSI) has been supporting Sweden in driving manufacturing SMEs towards sustainability and competitiveness in the green and digital economy, helping clinicians in making informed medical prescriptions by gathering provision of data through an AI-based model, and improving data governance in local decision-making processes at the Swedish County Administrative Board of Södermanland.

Sweden's RRP also contains ambitious measures to improve the business environment and competitiveness. As part of the measures covered by payment requests submitted over the past year, Sweden is implementing reforms to improve the fight against money laundering and terrorist financing and has made investments to expand the broadband network. These, along with other measures in the plan, will help make Sweden's economy greener, more digital, inclusive and resilient.

EU funds are playing a significant role in promoting environmental sustainability and the green transition in Sweden during the current seven-year EU budget (multiannual financial framework). Over EUR 375 million from the ERDF and JTF are being used to support the green transition. The additional production capacity for renewable energy should reach 309 MW, and the additional capacity for waste recycling 510 200 tonnes/year. The JTF will focus on helping the steel industry in Norrbotten, the metal industry in Västerbotten, and the cement industry on the island of Gotland during their industrial transformation towards carbon neutrality. These investments are expected to contribute to a decrease of 3 041 554 tonnes of

CO2 eq./year by 2029. The Swedish CAP strategic plan will dedicate 30% (about EUR 1.3 billion) of the EU financial contribution to supporting environmental and climate objectives, focusing on carbon sequestration, biodiversity and valuable grasslands, and on increasing knowledge about sustainable production. Farmers or other land managers may receive support for managing pastures and meadows to preserve and increase their natural and cultural environmental value, with the aim of maintaining over 420 000 hectares annually.

Sweden's RRP, including the REPowerEU chapter, has a comprehensive set of reforms and investments for the green transition. These are aimed at accelerating the green transition of carbon-intensive sectors such as industry, housing and transport, while ensuring the competitiveness of the Swedish economy. Sweden submitted its first payment request in December 2024. The request covers important reforms that incentivise the decarbonisation of transport by abolishing the reduction of energy tax on fuel and adjusted taxable benefit rates for company cars. The payment request also covers investments at local and regional level to reduce carbon dioxide emissions and to upgrade railway infrastructure. To help Sweden implement its RRP, the TSI supports, among other things, the achievement of greenhouse gas emissions reduction targets.

Promoting fairness, social cohesion and improving access to basic services are among the key priorities of EU funding in Sweden. The Swedish European Social Fund Plus (ESF+) programme promotes social fairness by implementing active inclusion programmes that support disadvantaged people. The programme improves access to essential services for vulnerable groups and those in less developed regions. In the sparsely populated northern regions, the ESF+ will launch at least 50 projects to support local and regional development, foster collaboration between organisations, and provide education, training and support to individuals seeking employment. This will address challenges like distance, low population density and an ageing population. In addition, the AMIF contributes largely to the resettlement and humanitarian admission, as well as to integration tailored to the needs of third-country nationals, increasing opportunities for the target group to establish themselves in Swedish society and the Swedish labour market.

Sweden's RRP contains several reforms and investments related to fairness and social policies. Measures included in the plan aim to improve employment opportunities by upskilling the labour force and increasing the flexibility of the labour market through a modernised employment protection law. The first payment request includes investments used to provide additional study places in higher education and to improve elderly care by upskilling and training staff. Reforms covered by the payment request include modernising employment protection and labour market integration.

Table A16.1:**Selected EU funds with adopted allocations - summary data (million EUR)**

Instrument/policy	Allocation 2021-2026		Disbursed since 2021 (1)
RRF grants (including the RepowerEU allocation)	3 445.7		0
RRF loans			0
Instrument/policy	**Allocation 2014-2020 (2)**	**Allocation 2021-2027**	**Disbursed since 2021 (3)** (covering total payments to the Member State on commitments originating from both 2014-2020 and 2021-2027 programming periods)
Cohesion policy (total)	2 020.8	1 725.0	1 243.5
European Regional Development Fund (ERDF)	1 008.0	862.5	534.5
European Social Fund (ESF, ESF+)	1 012.7	706.7	655.8
Just Transition Fund (JTF)		155.7	53.3
Fisheries			
European Maritime, Fisheries and Aquaculture Fund (EMFAF) and the European Maritime and Fisheries Fund (EMFF)	120.2	115.9	67.0
Migration and home affairs			
Migration, border management and internal security - AMIF, BMVI and ISF (4)	395.6	485.6	276.2
The common agricultural policy under the CAP strategic plan (5)	**Allocation 2023-2027**		**Disbursements under the CAP Strategic Plan (6)**
Total under the CAP strategic plan	4 521.0		1 616.4
European Agricultural Guarantee Fund (EAGF)	3 461.5		1 360.6
European Fund for Agricultural Development (EAFRD)	1 059.4		255.8

(1) The cut-off date for data on disbursements under the RRF is 31 May 2025
(2) Cohesion policy 2014-2020 allocations include REACT-EU appropriations committed in 2021-2022.
(3) These amounts relate only to disbursements made from 2021 onwards and do not include payments made to the Member State before 2021. Hence the figures do not comprise the totality of payments corresponding to the 2014-2020 allocation. The cut-off date for data on disbursements under EMFAF and EMFF is 29 April 2025. The cut-off date for data on disbursements under cohesion policy funds, AMIF, BMVI and ISF is 5 May 2025.
(4) AMIF - Asylum, Migration and Integration Fund; BMVI - Border Management and Visa Instrument; ISF - Internal Security Fund.
(5) Expenditure outside the CAP strategic plan is not included.
(6) The cut-off date for data on EARDF disbursements is 5 May 2025. The information on EAGF disbursements is based on the Member State declarations until March 2025. Disbursements for the Direct Payments (EAGF) started in 2024.
Source: European Commission

Table A16.2:**Summary table on 2019-2024 CSRs**

Sweden	Assessment in May 2025	Relevant SDGs
2019 CSR 1	**Limited progress**	
Address risks related to high household debt by gradually reducing the tax deductibility of mortgage interest payments or increasing recurrent property taxes.	No progress	SDG 8
Stimulate investment in residential construction where shortages are most pressing, in particular by removing structural obstacles to construction.	Limited progress	SDG 8
Improve the efficiency of the housing market, including by introducing more flexibility in rental prices and revising the design of the capital gains tax.	Limited progress	SDG 8
2019 CSR 2	**Some progress**	
Focus investment related economic policy on education and skills	Some progress	SDG 4, 10, 11
, maintaining investment in sustainable transport to upgrade the different transport modes, in particular railways	Substantial progress	SDG 10, 11
, and research and innovation, taking into account regional disparities.	Substantial progress	SDG 9, 10, 11
2019 CSR 3	**Substantial progress**	
Ensure effective supervision and the enforcement of the anti-money laundering framework.	Substantial progress	SDG 8, 16
2020 CSR 1	**Substantial progress**	
In line with the general escape clause, take all necessary measures to effectively address the pandemic, sustain the economy and support the ensuing recovery. When economic conditions allow, pursue fiscal policies aimed at achieving prudent medium-term fiscal positions and ensuring debt sustainability, while enhancing investment.	Not relevant anymore	SDG 8, 16
Ensure the resilience of the health system, including through adequate supplies of critical medical products, infrastructure and workforce.	Substantial progress	SDG 3
2020 CSR 2	**Some progress**	
Foster innovation	Substantial progress	SDG 9
and support education and skills development.	Some progress	SDG 4
Front-load mature public investment projects and	Limited progress	SDG 8, 16
promote private investment to foster the economic recovery.	Some progress	SDG 8, 9
Focus investment on the green and digital transition, in particular on clean and efficient production and use of energy,	Some progress	SDG 7, 9, 13
high-tech and innovative sectors,	Substantial progress	SDG 9
5G networks	Full implementation	SDG 9
and sustainable transport.	Substantial progress	SDG 11
2020 CSR 3	**Substantial progress**	
Improve the effectiveness of anti-money laundering supervision and effectively enforce the anti-money laundering framework.	Substantial progress	SDG 8, 16
2021 CSR 1	**Not relevant anymore**	
In 2022, maintain a supportive fiscal stance, including the impulse provided by the Recovery and Resilience Facility, and preserve nationally financed investment.	Not relevant anymore	SDG 8, 16
When economic conditions allow, pursue a fiscal policy aimed at achieving prudent medium-term fiscal positions and ensuring fiscal sustainability in the medium term.	Not relevant anymore	SDG 8, 16
At the same time, enhance investment to boost growth potential. Pay particular attention to the composition of public finances, on both the revenue and expenditure sides of the budget, and to the quality of budgetary measures in order to ensure a sustainable and inclusive recovery. Prioritise sustainable and growth-enhancing investment, in particular investment supporting the green and digital transition.	Not relevant anymore	SDG 8, 16
Give priority to fiscal structural reforms that will help provide financing for public policy priorities and contribute to the long-term sustainability of public finances, including, where relevant, by strengthening the coverage, adequacy and sustainability of health and social protection systems for all.	Not relevant anymore	SDG 8, 16

(Continued on the next page)

Table (continued)

2022 CSR 1	**Limited progress**	
In 2023, ensure that the growth of nationally financed primary current expenditure is in line with an overall neutral policy stance, taking into account continued temporary and targeted support to households and firms most vulnerable to energy price hikes and to people fleeing Ukraine. Stand ready to adjust current spending to the evolving situation.	Not relevant anymore	SDG 8, 16
Expand public investment for the green and digital transitions, and for energy security taking into account the REPowerEU initiative, including by making use of the Recovery and Resilience Facility and other Union funds.	Not relevant anymore	SDG 8, 16
For the period beyond 2023, pursue a fiscal policy aimed at achieving prudent medium-term fiscal positions.	Not relevant anymore	SDG 8, 16
Reduce risks related to high household debt and housing market imbalances by reducing the tax deductibility of mortgage interest payments or by increasing recurrent property taxes.	No progress	SDG 8, 10, 12
Stimulate investment in residential construction to ease the most urgent shortages, in particular by removing structural obstacles to construction and by ensuring the supply of buildable land.	Limited progress	SDG 8, 9
Improve the efficiency of the housing market, including by introducing reforms to the rental market.	Limited progress	SDG 8
2022 CSR 2		
Proceed with the implementation of its recovery and resilience plan, in line with the milestones and targets included in the Council Implementing Decision of 4 May 2022.	RRP implementation is monitored by assessing RRP payment requests and analysing reports published twice a year on the achievement of the milestones and targets. These are to be reflected in the country reports.	
Swiftly finalise the negotiations with the Commission of the 2021-2027 cohesion policy programming documents with a view to starting their implementation.	Progress on the cohesion policy programming documents is monitored under the EU cohesion policy.	
2022 CSR 3	**Limited progress**	
Reduce the impact that pupils' socio-economic and migrant backgrounds have on their educational outcomes by providing equal access opportunities to schools and by addressing the shortages of qualified teachers.	Limited progress	SDG 4, 8, 10
Develop skills of disadvantaged groups, including people from migrant backgrounds, by adapting resources and methods to their needs to help their integration into the labour market.	Some progress	SDG 4, 8, 10
2022 CSR 4	**Some progress**	
Reduce overall reliance on fossil fuels	Limited progress	SDG 7, 9, 13
by accelerating the deployment of renewables and boosting complementary investment in network infrastructure, strengthening internal grids within the country to ensure sufficient network capacity,	Some progress	SDG 7, 9, 13
improving energy efficiency,	Some progress	SDG 7
and further streamlining permitting procedures in relation to renewable energy projects.	Some progress	SDG 7, 9, 13
2023 CSR 1	**Some progress**	
Wind down the emergency energy support measures in force, as soon as possible in 2023 and 2024. Should renewed energy price increases necessitate new or continued support measures, ensure that these are targeted at protecting vulnerable households and firms, fiscally affordable, and preserve incentives for energy savings.	Full Implementation	SDG 8, 16
While maintaining a sound fiscal position in 2024,	Full implementation	SDG 8, 16
preserve nationally financed public investment and ensure the effective absorption of RRF grants and other EU funds, in particular to foster the green and digital transitions.	Full implementation	SDG 8, 16
For the period beyond 2024, continue to pursue investment and reforms conducive to higher sustainable growth and preserve a prudent medium-term fiscal position.	Full implementation	SDG 8, 16
Reduce risks related to high household debt and housing market imbalances by reducing the tax deductibility of mortgage interest payments and/or increasing recurrent property taxes, while establishing adequate tools for better policy assessment and targeting.	No progress	SDG 8, 10, 12
Stimulate investment in residential construction to ease the most urgent shortages, in particular by removing structural obstacles to construction and by ensuring the supply of buildable land.	Limited progress	SDG 8, 10, 12

(Continued on the next page)

Table (continued)

Improve the efficiency of the housing market, including by introducing reforms to the rental market	Limited progress	SDG 8, 10, 12
2023 CSR 2		
Proceed with the steady implementation of its recovery and resilience plan and swiftly finalise the REPowerEU chapter with a view to rapidly starting its implementation. Proceed with the speedy implementation of cohesion policy programmes, in close complementarity and synergy with the recovery and resilience plan.	RRP implementation is monitored through the assessment of RRP payment requests and analysis of the bi-annual reporting on the achievement of the milestones and targets, to be reflected in the country reports. Progress with the cohesion policy is monitored in the context of the Cohesion Policy of the European Union.	
2023 CSR 3	**Limited progress**	
Improve educational outcomes for pupils with disadvantaged socio-economic and migrant backgrounds by ensuring equal access opportunities in the schooling system and addressing the shortages of qualified teachers.	Limited progress	SDG 4, 10
Develop the skills of disadvantaged groups, particularly people with migrant backgrounds, by adapting resources and methods to their needs, with a view to helping them integrate into the labour market.	Some progress	SDG 4, 8, 10
2023 CSR 4	**Limited progress**	
Reduce reliance on fossil fuels	Limited progress	SDG 7, 9, 13
by accelerating the deployment of renewables, including by expanding and upgrading energy transmission networks,	Some progress	SDG 7, 9, 13
introducing reforms to simplify and speed up administrative and permitting procedures,	Some progress	SDG 7, 9, 13
improving energy efficiency and	Some progress	SDG 7, 9, 13
stepping up policy efforts aimed at the provision and acquisition of skills and competences needed for the green transition.	Some progress	SDG 4, 7, 13
2024 CSR 1	**Limited progress**	
Submit the medium-term fiscal-structural plan in a timely manner.	Full implementation	SDG 8, 16
Reduce risks related to high household debt and housing market imbalances by reducing the tax deductibility of mortgage interest payments and increasing recurrent property taxes, while developing appropriate tools for better policy assessment and targeting.	No Progress	SDG 8, 10, 12
Stimulate investment in residential construction to ease the most urgent shortages, in particular by removing structural obstacles to construction.	Limited Progress	SDG 8, 10, 12
Improve the efficiency of the housing market, including by introducing reforms in the rental market.	No Progress	SDG 8, 10, 12
2024 CSR 2		
In light of prolonged delays, significantly accelerate the implementation of the recovery and resilience plan, including the REPowerEU chapter, ensuring completion of reforms and investments by August 2026. Accelerate the implementation of cohesion policy programmes. In the context of their mid-term review continue focusing on the agreed priorities, while considering the opportunities provided by the Strategic Technologies for Europe Platform initiative to improve competitiveness.	*RRP implementation is monitored through the assessment of RRP payment requests and analysis of the bi-annual reporting on the achievement of the milestones and targets. Progress with the cohesion policy is monitored in the context of the Cohesion Policy of the European Union.*	
2024 CSR 3	**Limited Progress**	
Improve educational performance, including of students with disadvantaged socio-economic and migrant backgrounds, by addressing the persistent shortage of qualified teachers, by ensuring equal access opportunities to the schooling system and by further supporting the transition of students to upper secondary school.	No Progress	SDG 4, 10
Develop the skills of the labour force, particularly those from disadvantaged socio-economic and migrant backgrounds, through targeted policy measures and resources, to improve their integration into the labour market.	Limited Progress	SDG 4, 8, 10
2024 CSR 4	**No Progress**	
Ensure the achievement of greenhouse gas emissions reduction targets by reducing in particular emissions from road transport,	No Progress	SDG 7, 9, 13
and accelerate and streamline permitting procedures for deploying renewables, in particular for offshore and onshore wind energy.	Limited Progress	SDG 7, 9, 13

Source: European Commission

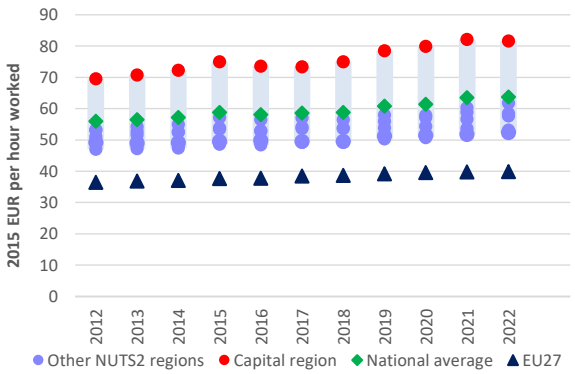
Overall, Sweden's regions continue to perform well on economic and social indicators in comparison with the EU average. However, regional disparities have risen slightly over the last two decades, as has the gap between urban centres and the rest of the country. Stockholm is the best performing Swedish region on most of the indicators, whereas regional development is hampered by lack of sufficient labour supply and accessibility issues in the northern parts of Sweden.

Sweden is among the top 10 wealthiest EU Member States, characterised by a strong economy with high living standards. GDP per head (in purchasing power standard) at country level was 114% of the EU average in 2023. Most NUTS 2 regions were above the EU average, except for Östra Mellansverige (99%), Småland med öarna (98%), and Norra Mellansverige (86%). The Stockholm capital region stands out, with a GDP per capita at 153% (Table A17.1). GDP per capita growth between 2014 and 2023 was relatively slow in Sweden, with all NUTS 2 regions growing slower than the EU average (Table A17.1).

Competitiveness

Labour productivity in Sweden continues to be strong in an EU-wide context. All regions are performing well, but the national average is largely driven by the exceptional performance of Stockholm (Graph A17.1). The productivity gap between the most and the least productive regions has slightly increased over the past decade. This increasing gap is likely linked to limited transport connections, lower employment in knowledge-intensive sectors, suboptimal R&D expenditure, and lower levels of educational attainment in the lower performing regions Regarding the indicator real productivity growth, some regions are falling behind the EU average, Norra Mellansverige scoring the lowest among these.

Graph A17.1: **Labour productivity per hour**



Source: ARDECO (JRC)

Sweden is an innovation leader, but there are notable differences in regional innovation performance. Västsverige (5.27%) is the top Swedish region for R&D expenditure, while Mellersta Norrland invests the least in R&D (0.7%) (Table A17.1). Stockholm is one of the most innovative regions in the EU. A similar pattern can be seen in the Regional Competitiveness Index, where the capital region is ranked the highest and Norra Mellansverige the lowest in Sweden (Map 17.1).

Norra Mellansverige – the only transition

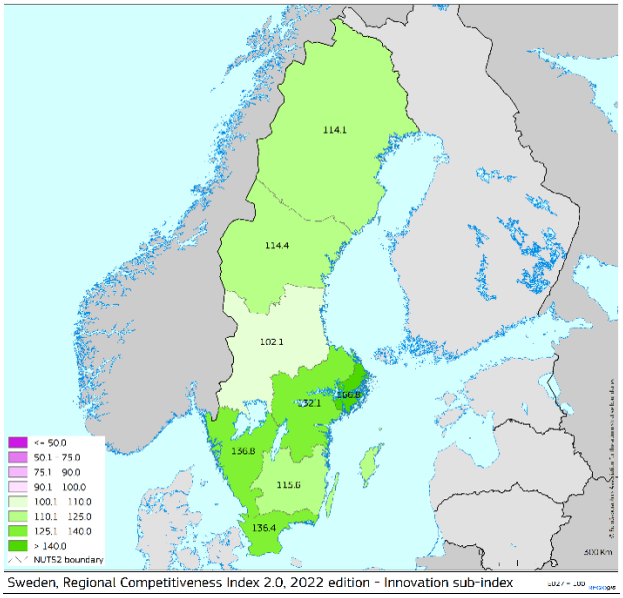
Table A17.1:**Selection of indicators at regional level in Sweden**

	GDP per head (PPS)	Real GDP per head growth	Productivity - GDP per hour worked (PPS)	Real productivity growth (per hour worked)	R&D expenditure	Employment in high-technology sectors	Population with high educational attainment	Population growth	Employment rate 20-64	Access to primary schools	Households with broadband connection	Transport performance by car	Greenhouse gas emissions
	Index EU-27 = 100	Average annual % change	Index EU-27 = 100	Average annual % change	% of GDP	% of total employment	% of population aged 25-64	Average annual change per 1000 residents	% of population aged 20-64	Children under 15 within 15-minute walk to primary school (%)	% of households	% of population within 1h30min reach	tCO2eq. per person
	2023	2014-2023	2022	2013-2022	2022	2024	2024	2013-2022	2024	2023	2021	2021	2023
European Union (27 MS)	100	1.6	100	0.9	2.28	5.2	36.1	1.4	75.8	100	90	77.2	7.1
Sweden	114	1.1	116	1.3	3.40	6.8	50.5	9.6	81.9	120	91	74.1	4.6
Stockholm	153	1.2	143	1.6	3.59	11.2	59.6	13.8	83.7	160	93	90.5	1.5
Östra Mellansverige	99	1.1	105	0.8	3.60	6.2	46.4	10.4	79.6	103	93	70.6	5.5
Småland med öarna	98	0.9	98	1.3	1.57	3.5	43.1	7.8	84.2	103	90	55.2	6.5
Sydsverige	100	1.2	107	1.4	3.21	5.5	52.4	10.6	80.1	101	91	80.9	4.1
Västsverige	111	1.1	111	1.5	5.27	6.3	49.7	9.8	81.5	116	89	76.8	5.0
Norra Mellansverige	86	-0.1	101	0.6	1.05	3.4	42.2	4.0	82.5	99	90	51.9	5.3
Mellersta Norrland	102	1.1	108	0.9	0.70	4.6	39.2	2.1	81.6	109	90	58.3	7.0
Övre Norrland	113	0.7	123	1.2	2.43	4.7	47.9	3.2	83.6	129	83	56.4	9.9

Source: Eurostat and JRC

region in Sweden – had the lowest performance of Swedish regions for several indicators related to growth and competitiveness. These indicators include GDP, GDP growth, productivity growth and employment in high technology sectors. For some of these indicators, Norra Mellansverige was even below the EU average (Table A17.1).

Map A17.1: **Regional Competitiveness Index 2022 - Innovation sub-index**



Source: DG REGIO, JRC based on Eurostat

There are also notable differences in population with high educational attainment between the regions. Mellersta Norrland has the lowest performance, although the region is a few percentage points above the EU average (Table A17.1).

The population is growing in all Swedish regions, although growth is slowing down. This growth is mainly due to migration, with the capital region's population growing fastest and the three most northern regions slowest (Table A17.1).

These three regions also have the largest proportion of people over 65, and they struggle with a decreasing natural population change (fertility/mortality), although for now this is countered by net migration. According to Swedish population forecasts at NUTS 3 level, seven out of 21 regions will see a decrease in population by 2040. The two counties with the lowest demographic forecasts for the period 2023-2040 are Norrbotten (-6.2%) and Västernorrland (-7.3%), which are two of the sparsely populated areas in the north of Sweden ([203]).

Social fairness

Sweden enjoys a relatively high level of equality compared to most EU countries, but some regional disparities inevitably exist. The employment rate across all regions is one of the highest in the EU. It reached 80% in all regions and 81.9% for the country as a whole, six percentage points above the EU average.

The three northern regions and Småland med öarna are much less accessible compared to other Swedish regions or the EU average. This applies both for rail and car transport performance (Table A17.1).

In general, Swedish urban areas have easier access to services compared to rural and remote areas. Access to primary schools is one example of this. The capital region has a much larger percentage of children living within walking distance of a primary school compared to the northern regions (Table A17.1). Having good quality schools and healthcare, in addition to job opportunities, are key issues affecting people's decision to stay in or move to a certain region.

Highspeed broadband is essential, especially for rural areas, to provide services (for example in healthcare and education) as well as providing job opportunities. Swedish households' access to broadband is around the EU average of 90%, except in Övre Norrland, where it is 83% (Table A17.1).

Skills shortages are an issue in many Swedish regions, **especially in towns situated outside the big cities**. Skills shortages in the health and social care sectors are especially severe in rural areas and in commuter municipalities ([204]). An ageing and shrinking population outside the urban areas will make it even more difficult to provide accessible good quality services in different parts of Sweden, but

([203]) Statistics Sweden

([204]) AgriFood 2024:1 - Arbetskraftsbrist - ett problem eller en möjlighet?

perhaps more so in the sparsely populated northern areas.

Sustainability

Swedish regions are global leaders in sustainability, with ambitious goals to reduce emissions and increase the proportion of fossil-free energy in their economy. However, Övre Norrland stands out from other Swedish regions in greenhouse gas emissions due to its heavy industry. While the rest of Sweden manages to stay under the EU average, Övre Norrland is significantly above (Table A17.1).

The large supply of clean energy is driving the green industrial transition in the north of Sweden. Nevertheless, more clean energy may be needed if the full potential of the green transition is to be realised. The many energy-intensive industrial projects currently being planned and implemented would require more energy than is currently being generated in the region. Therefore, increasing clean energy production would help to create more green jobs in the long term ([205]).

Skilled labour shortages are an obstacle to regional development, especially in relation to the green transition in Sweden's most northerly regions. In 2024, Övre Norrland had the lowest unemployment rate in Sweden at 5.2%, compared to the national average of 8.4%. It is estimated that more than 100 000 skilled workers will be needed in northern Sweden by 2035, which constitutes a major skills gap ([206]). Accessibility and quality of transport links, especially railway, is also an issue in the northern parts of Sweden, with its long distances and sparse population.

([205]) Norrbotten: Industriomställningen och dess samhällsekonomiska effekter

([206]) Norrbotten: Industriomställningen och dess samhällsekonomiska effekter