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COUNCIL RECOMMENDATION

on the economic policy of the euro area

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This European Macroeconomic Report (EMR) has been prepared by the Commission services to analytically underpins the annual Commission Recommendation on the economic policy of the euro area, and the Alert Mechanism Report, which are published at end-November 2026. The Report aims to inform strategic policy choices to strengthen the resilience of the euro area and the EU in the face of a rapidly evolving global order.

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EXECUTIVE SUMMARY

The World and European economies are facing a number of major shocks. Some – like technological transformations, including the development and adoption of AI – are expected to revolutionise how we produce and trade, and how we create ideas in the medium and long term. Like earlier technological revolutions, they are expected to increase efficiency, reduce costs and allow firms to produce more with fewer resources. At the same time, they require deep structural changes, alter the relative power of economies, may disrupt established industries and competitive advantages, displace workers and upend the distribution of income and wealth. Other shocks are shorter-lived but can also be deeply transformative: the ongoing fossil fuel supplyshock, supply chain disruptions caused by war-related blockades of shipping lanes and attacks on energy infrastructure, or abrupt changes in some of our partners' trade policies. As the EU is highly dependent on fossil fuelimports and very open to trade, these supply shocks may have substantial costs for activity, inflation and jobs.

However, in recent years, the EU economy has proved resilient to successive shocks. The damaging impact of these events (in 2020 with the pandemic; in 2022 with Russia's aggression against Ukraine and the rise in energy prices, in 2025 with the change in US trade policies), was smaller than expected on each occasion. In particular, labour markets remained robust and European firms continued creating new jobs. The 2026 price spikes as a result of the Middle East conflicts did not significantly disrupt economic activity, which is another example of the EU's economic resilience, although its full effect may yet lie ahead and fossil fuel importscosts could further impact Europe's productivity and competitiveness.

Yet resilience has not translated into dynamism. Productivity growth has slowed, and the EU's share of world GDP fell from around 18% to less than 14% between 2010 and 2026. This is not for lack of means for investment: the EU generates enough annual savings to finance its ambitions. But in many cases, those savings were channelled abroad rather than invested in European industries. The growing financial investment overseas and the increasing exposure to US financial assets point to the untapped potential of deeper, more integrated European capital markets, while persistent macroeconomic imbalances call for timely action. To examine these challenges and the policy responses they call for, the report is divided into four chapters. The first two cover the macro-structural landscape, and imbalances and vulnerabilities, while the two thematic chapters examine global financial flows and the AI's macroeconomic impact.

Chapter 1 shows that the EU's economy has proven to be better suited to absorbing temporary shocks than to adapting to permanent ones. For decades, protecting existing firms, jobs and structures was affordable while economic growth came from efficiency gains within existing industries. As those industries mature, productivity depends increasingly on creative destruction, whereby new firms and innovations displace less productive incumbents. In the EU, creative destruction has been weak: few firms exit when productivity stagnates, few innovative firms scale up, business births and deaths trail US levels, and almost one third of European unicorns have ended up relocating abroad. As a result, over four-fifths of the EU-US productivity gap arises within industries, not from sector mix.

A number of issues have held back the reallocation of capital and labour. Single Market fragmentation, regulatory complexity and size-dependent rules limit firm scale; fragmented banking and thin venture capital keep savings from reaching young firms; strong research is not

matched by commercialisation and adoption; and limited labour mobility and skills shortages keep workers from following capital to the most efficient companies and sectors. Policy responses should therefore centre on completing the Savings and Investments Union and the Single Market, easing firm exit, supporting workers rather than jobs and fostering skills and mobility. Implementation pace or the policy response matters, as costs are immediate and benefits diffuse. Closing the productivity gap is compatible with, and necessary for, Europe's welfare model.

Chapter 2 identifies challenges that need to be addressed by safeguarding macroeconomic stability and supporting balanced growth. Inflation re-emerged in 2026 with rising energy prices, and added to persistent domestic cost pressures in several countries. In parallel, the EU economy may still be adjusting to higher US tariffs introduced in 2025, and tariff uncertainty lingers. Intensifying foreign competition is weighing on EU exports and related investment. The EU and euro area external surpluses have narrowed over recent years but remain above fundamentals, reflecting investment well below savings and pointing to untapped potential that weighs on growth. Current account positions remain uneven across Member States, despite some convergence. Those challenges are compounded by widening global external imbalances, which increase uncertainty around exchange rates, external demand, trade and capital flows. Financing conditions have been tightening in 2026. On top of rising sovereign yields, government debt dynamics are becoming more challenging amid growing spending pressures on defence, the digital and clean energy and climate transitions, and age-related expenditure. House price growth has accelerated across much of the EU, increasing overvaluation risks in several cases. Persistent supply constraints appear to be the main driver, worsening housing affordability. The banking sector is strong but exposed to weaker economic conditions. Financial interconnectedness, particularly with non-bank financial institutions, could amplify shocks and heighten systemic risks.

Chapter 3 discusses how the EU and the euro area have become increasingly exposed to the US on the asset side of their external balance sheets, particularly in debt and equity instruments. This increase in exposures to the US has boosted returns during periods of strong US market performance, but has also increased exposure to exchange-rate shifts and asset price corrections. The analysis argues that this trend also reflects weaknesses in the EU financial system, shallow equity markets and insufficient cross-border channelling of savings into productive investment within the EU. Chapter 3 also shows how US exposures are concentrated in a small number of Member States and financial hubs, meaning that aggregate figures can obscure important differences in how risks are transmitted across economies. This concentration may create vulnerabilities. A correction in US equity valuations, or a sizeable exchange-rate movement, could generate significant valuation losses for European investors and weaken the external positions of the EU and euro area. The main policy implication is that the EU should strengthen its capacity to retain and allocate savings efficiently through deeper, more integrated capital markets.

Chapter 4 shows how the macroeconomic impact of AI now tops the policy agenda as governments weigh both its growth potential and adjustment costs. European businesses are adopting AI at a growing pace, converging with the US. However, adoption has been uneven across firm types. Several factors hold back adoption, with lack of expertise being the main obstacle. In addition, supply chains for AI hardware and infrastructure remain geographically concentrated, increasing concerns about economic security. For labour markets, AI increases the short-run skill demand needed for development and adoption. However, it may replace certain routine tasks in the short term, and non-routine tasks may also be exposed in the medium to long term. While existing evidence suggests a zero or positive impact of AI adoption on aggregate employment, evidence of negative effects for junior workers is emerging. The policy response should focus on building the required skills, ensuring labour market flexibility, and limiting earnings losses for the most exposed professions. Risks from AI are plentiful, including concentrated and vulnerable supply chains, a small number of dominant firms discouraging new entry, financial sector and economic security concerns but opportunities are plentiful too.

1. ECONOMIC LANDSCAPE

Introduction

The European economy has proved resilient to temporary shocks. Recent years have brought a succession of large negative shocks: the COVID-19 pandemic, Russia's invasion of Ukraine and the resulting energy crisis, and a new global fossil fuel supply shock in recent quarters linked to conflicts in the Middle East. Thanks to policy actions, European social safety nets and healthy private sector balance sheets, the economic and social impact of those temporary shocks has been smaller than many feared. Employment kept reaching record rates, and activity rebounded promptly.

Europe has however been far less successful in adapting ([1]) **to permanent economic and technological changes.** Geopolitical shifts have upended the world order with implications for trade, finance, defence and security. The fast global diffusion of artificial intelligence (AI), tangible effects of climate change and unfavourable demographics have added further pressure. Productivity and potential growth have slowed, and the EU's economic weight is shrinking: its share of world GDP declined from 17.6% to 13.8% between 2010 and 2026. EU GDP per hour worked fell from around 90% of the US level in the mid-1990s to below 80% ([2]).

For decades, productivity growth in Europe came mainly from efficiency gains within existing firms, through economies of scale and scope and process innovation. As those sources mature, an increasing share of productivity gains depends on continuously renewing the productive structure itself. Where economic structures are organised to avoid economic and social disruption, EU firms that should exit the market do not, tying up capital that could be used more productively elsewhere thereby limiting the ability of startups to prosper and scale. At the same time European workers who could move to better-matched, more productive, jobs often stay where they are. This limited adaptive capacity has medium-term economic costs. It now matters more than before, as the shocks Europe faces today - from technological changes and China's shift toward higher-value production to the structural repricing of energy and the end of low interest rates - are likely to be permanent rather than simply transitory.

This first chapter of the report investigates the causes of low economic growth in Europe and sets out avenues for boosting economic dynamism. It is structured as follows. *First*, it reviews recent economic developments, showing that absorbing temporary shocks is different from adapting to permanent changes, and that the resulting EU-US productivity gap has become persistent. *Second*, it examines that productivity gap in detail: its scale, its persistence, its drivers. *Third*, it diagnoses the causes behind the gap: structural constraints holding back the

([1]) In what follows, adaptive capacity refers to the systemic ability of an economy to continuously renew its productive structure through innovation, technological diffusion, organisational change and the reallocation of labour and capital towards more productive activities. This is broader than creative destruction in the Schumpeterian sense: renewal can come as much from incumbents upgrading their own products and organisations, as from new entrants displacing old ones, and from the diffusion of existing technologies as much as from genuinely new ones (Klenow and Li, 2021).

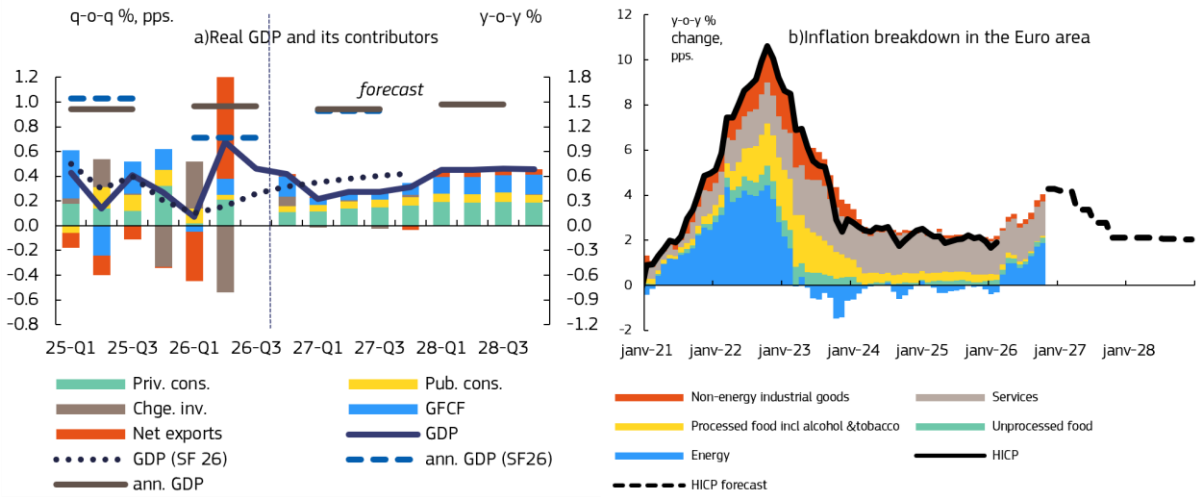
([2]) At constant 2020 purchasing power standards (Graph 1.10a). On the difference between developments in productivity and progress in living-standards measures, see footnote 34.

reallocation of capital and labour that creative destruction requires. *Fourth*, it sets out avenues for boosting economic dynamism through innovation and knowledge, markets, and funding; it also shows that closing the productivity gap is compatible with, and in fact necessary for, sustaining Europe's welfare model.

Recent macroeconomic developments

The EU and the euro area grew moderately in 2026, amid intensifying headwinds. Economic activity exceeded expectations in the first half of the year and continued momentum in the third quarter suggests that, so far, the conflicts in the Middle East had a smaller-than anticipated economic impact, including via their impact on the global energy market. The favourable economic outturn in the second quarter was broad-based across Member States and supported by net exports, a solid contribution from private consumption, while investment remained subdued. As one of the world's most open large economies and being highly dependent on energy imports, the EU and euro area are set to feel the strain of elevated energy prices and a continued challenging international environment. Food price pressures may aggravate due to energy and fertiliser price shocks, war-related bottlenecks in grain markets and the adverse impact of this summer's heatwaves and drought on crop yields, with economic and social implications. At the same time, tighter monetary policy and higher long-term interest rates induce tighter financial conditions, which will weigh on investment and consumption. Real GDP in the euro area is expected to grow by 1.2% in 2026 and in 2027 (Graph 1.1.a). Annual headline (HICP) inflation in the euro area is projected to average 3.2% in 2026 and 3.1% in 2027 (Graph 1.1.b) ([3]).

Graph 1.1: **Real GDP and inflation in the Euro area**



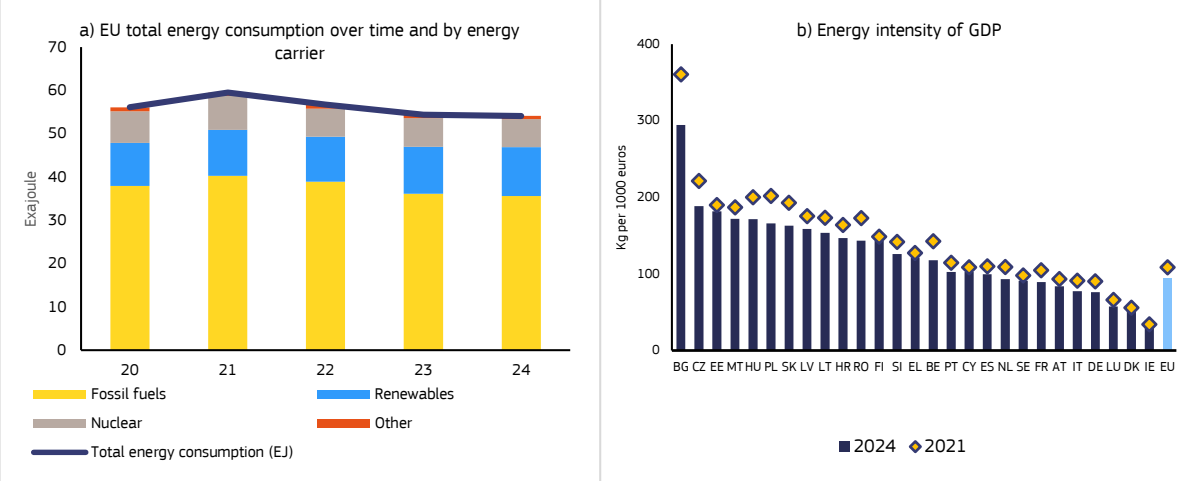
Notes: Graph a): Historical revisions in Germany's data not yet included in aggregate.
Source: European Commission.

The social and macroeconomic impact of the 2026 fossil fuel supply shock has been so far more contained than in 2022. This reflects three main factors. *First*, the shocks differed in nature and in the economic context in which they hit. The 2022 fossil fuel supply shock was a concentrated regional shock, centred on pipeline gas from Russia, on which Europe was then heavily dependent and from which diversification was costly. It also came after the post-COVID-19

([3]) For a more developed narrative on recent economic developments and the outlook for 2027-28, refer to the Autumn 2026 Economic Forecasts.

reopening, when pent-up demand, fiscal expansion of the previous years and supply bottlenecks were already pushing up prices, a backdrop absent in 2026. By contrast, the 2026 disruption of trade through the Strait of Hormuz hit global oil, distillates and LNG markets and was transmitted more broadly through energy markets, with the adjustment spread over the whole world economy. Non-Gulf energy supply increased, oil flows were partly rerouted, inventories provided a buffer, and lower global energy demand helped absorb the disruption. *Second*, the EU's energy structure has changed over the past years. Since 2022, the gas and oil shares in the EU energy mix have declined, while the shares of renewables and nuclear energy have increased (Graph 1.2.a) ([4]). The EU supplier base has become more diversified ([5]), and therefore less exposed to country-specific shocks. *Third*, EU energy consumption and energy intensity have both fallen between 2021 and 2024. Consumption fell by 9.1% (Graph 1.2.a) and the energy intensity by 13% (Graph 1.2.b). This reflects efficiency gains and demand adjustments, including by energy-intensive industries (discussed below). Together, these three factors have limited the transmission of the 2026 energy shock to the EU and euro area economy ([6]). Fiscal support for firms and households has also been more limited in 2026 than in 2022–23 ([7]), but, as during the previous energy shock, it remains poorly targeted. However, the full impact may still lie ahead. Energy costs reach firms and households with a lag, as hedging contracts expire and retail tariffs are reset, and the coming winter will test gas storage refilled at elevated prices in a tight global LNG market, on which the EU now depends more heavily.

Graph 1.2: **EU energy consumption and energy intensity**



Notes: Graph a): Fossil fuels are calculated as the sum of gas, coal and oil; Graph b): Energy intensity is calculated as the quantity of energy produced per unit of GDP (here, per 1000 euro at constant 2015 prices).
Source: European Commission.

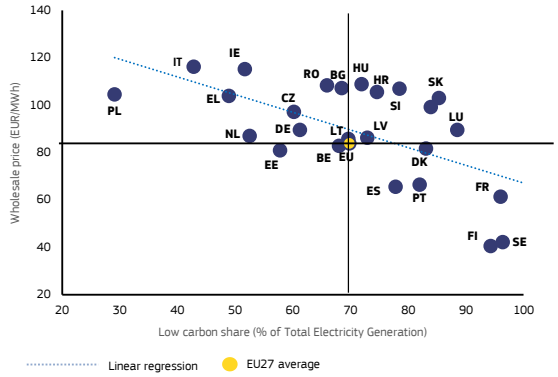
([4]) The growing share of renewables has reduced the EU's direct exposure to fossil-fuel price shocks, but the intermittency of renewable generation can contribute to greater short-term volatility in electricity prices and increases the need for flexible generation, storage and grid capacity. For example, wholesale electricity prices rose sharply in summer 2026 amid heatwaves and constraints on hydro and wind generation, showing that a lower-carbon system still faces weather-driven volatility even as it reduces exposure to fossil-fuel shocks.

([5]) The diversification away from Russian pipeline gas was supported by the post-2022 policies, including upgraded and diversified LNG infrastructure.

([6]) European Commission (2026h).

([7]) Much of that support, however, remains poorly targeted. See European Commission (2026h).

Graph 1.3: **Share of low-carbon sources in electricity generation and electricity prices in 2025 across EU Member States**



Source: European Commission's calculations based on Eurostat, S&P Global Platts, ENTSO-E, and Bloomberg.

The transmission of the 2026 energy shocks across the Union has been uneven. This reflects differences in the energy mix, industrial energy intensity, and households' exposure to energy costs. It also reflects a lack of integration in the European energy markets visible in the large differences in electricity prices ([8]). Member States with more renewables and/or nuclear energy (e.g. Sweden, Finland or , France) have lower electricity prices, while those relying more on gas or coal (e.g. Italy and Poland) are facing higher wholesale prices (Graph 1.3). These divergences show that, as long as energy markets remain insufficiently integrated and we do not have a genuine Energy Union, the same global shock will keep translating into very different costs for firms and households across Member States, which weakens the competitiveness of firms in higher-price countries.

A persistent gap in productivity growth in the EU compared to the US and other global competitors

In Europe, GDP per hour worked at constant prices has fallen from around 90% of the US level in the mid-1990s to below 80% in 2025 ([9]). EU potential growth has lagged that of the US over the past two decades and the gap is widening. In 2025, the EU's potential GDP growth was 1.4% (down from 2.1% in 2002), versus 2.5% in the US (down slightly from 2.7% in 2002), according to European Commission's estimates ([10]). The gap reflects mainly weaker total factor productivity (TFP) growth (i.e. the part of growth that comes from greater efficiency and innovation rather than from using more capital and labour) and slower capital accumulation (Graph 1.4.a). This translates into subdued labour productivity growth, with a gap to the US of more than 1pp in 2025-Q4 (Graph 1.4.b). China, with average TFP growth of 3% a year over the same period ([11]), has emerged as a major global economic power and a competitor to Europe in high- and medium-tech industries. At the same time, TFP has stagnated in the United Kingdom and Japan since the mid-2000s ([12]).

In a mature economy, long-term growth depends more on TFP growth than on additions to capital or labour. Such gains may take time, as the electrification of factories only paid off once firms reorganised production and invested in complementary capital and skills, a logic

([8]) Electricity is dispatched by "merit order", meaning that electricity is supplied first by the technologies with the lowest marginal costs (i.e. low carbon technologies and nuclear) and then by those with higher marginal costs (i.e. gas and coal). See Zakeri et al. (2023). Although the share of hours in which fossil fuel generation determines electricity prices in the EU has fallen, fossil fuels still act as the marginal technology around half of the time (51% in 2025 compared to 71% in 2021). See also European Commission (2026l).

([9]) See also Graph 1.10a.

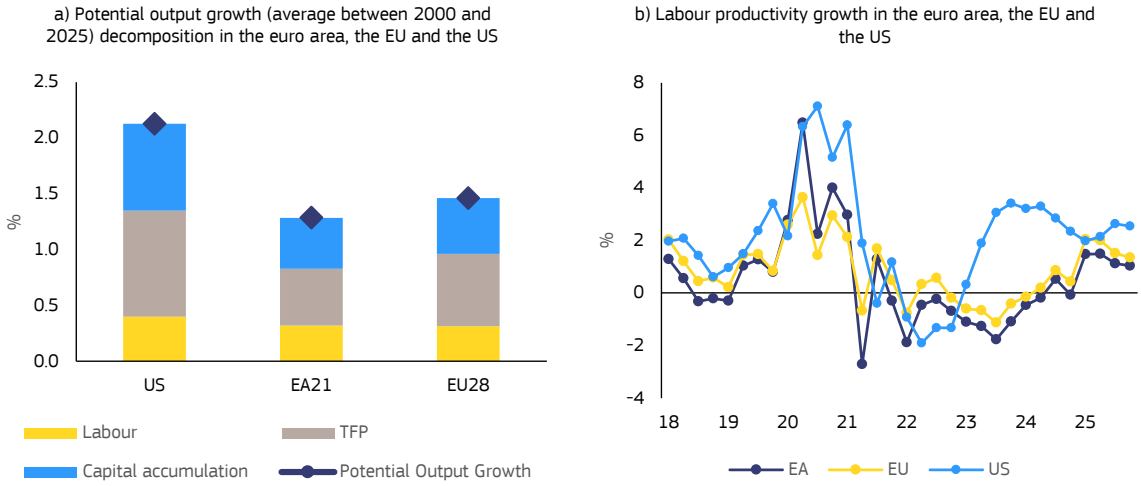
([10]) See European Commission (2026h).

([11]) Penn World Tables.

([12]) Penn World Tables.

particularly relevant for AI (David, 1990; Brynjolfsson, Rock and Syverson, 2021). TFP growth can be decomposed into a cyclical component, reflecting short-term fluctuations in how intensively firms use their existing capital and labour, and a structural component, reflecting the underlying pace of innovation and reallocation. This section decomposes the EU-US productivity gap using (i) shift-share analysis (within- vs. across-industry productivity), (ii) sectoral composition, and (iii) R&D/investment data.

Graph 1.4: **Potential output and labour productivity growth in the EU and the US**

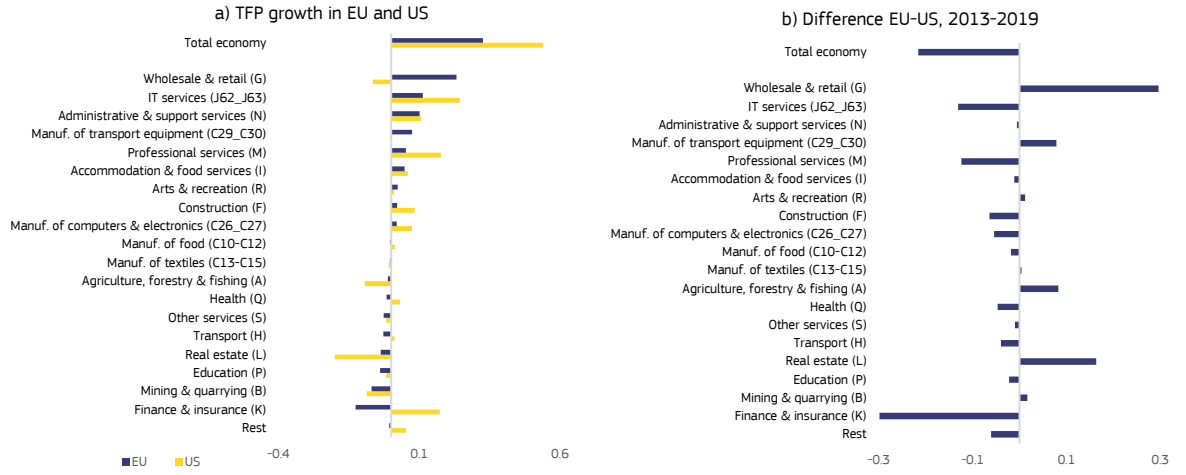


Notes: Graph b): the UK was included in the 2025 measure for comparability.
Source: European Commission.

Within-industry differences account for most of the EU-US productivity gap. Shift-share analysis attributes more than 80% of the gap to productivity growth within industries and less than one fifth to differences in the industry structure (Denis et al., 2004; da Silva et al., 2024) ([13]). Between 2010 and 2019, there were only four sectors (wholesale/retail trade, transport equipment manufacturing, agriculture, real estate) where the contribution to TFP growth was significantly higher in the EU than in the US (Graph 1.5). The EU therefore cannot close the gap simply by shifting resources towards higher-productivity sectors alone; it must raise productivity within industries. Within-industry productivity growth, however, reflects both efficiency gains in existing firms and the reallocation of resources between firms in the same industry, through entry, exit and the growth of more productive firms. Weak within-industry performance therefore partly reflects the limited firm churn discussed below.

([13]) On the persistence of intra industry differentials see also Simons (2026).

Graph 1.5: **Industry contribution to annualised total-economy (2013-19)**



Note: The EU is the GDP weighted average of AT, BE, DE, DK, ES, FI , FR, IT, NL, and SE. See Nikolov et al (2026).
Source: EU-KLEMS.

The EU's sectorial composition has weighed on aggregate productivity since 2020. In the years 2010-20, the relative size of sectors with higher TFP growth rose across the EU, including high-tech sectors. However, this growth was too slow in the EU, to close the gap with the much higher share of value added in high-tech sectors in the US (Nikolov et al., 2026; van Ark, 2026). Between 2021 and 2023 (see also graph 1.6.b), higher-productivity sectors' share of value added in Europe stagnated or shrank as lower-productivity sectors gained share. Since economy-wide productivity growth depends partly on resources shifting toward more productive sectors, this reverse pattern with resources moving toward less productive activities implies a negative compositional effect on aggregate labour productivity growth, with consequences for the EU's medium-to-long-term competitiveness.

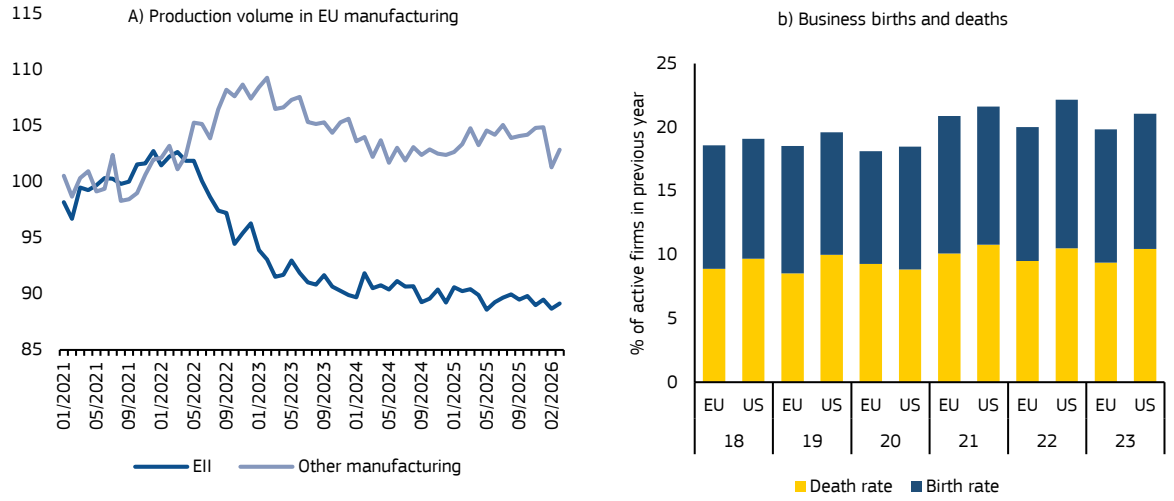
The EU's investment problem is one of composition rather than volume. It is not that the EU invests much less than the US overall, but that it invests less in the assets that matter most for productivity growth today. The shortfall lies in intangible assets such as R&D, software and data, not in fixed capital. Public and private investment in fixed capital as a percentage of GDP are roughly at the same level in the EU and the United States. By contrast, there is a gap in investment in intangible assets, with EU R&D intensity stagnating around 2.2% of GDP for a decade. This is more than 1 percentage point below the US, largely due to business underspending in R&D, and has now been overtaken by China ([14]). Moreover, the private R&D that takes place in Europe is concentrated in mid-tech sectors like the automotive sector, unlike the strongly high-tech oriented US business R&D, limiting its contribution to productivity growth in the fastest-growing technology segments. ICT investment is similarly more than 1 percentage point of GDP lower than in the US. The ICT and intangibles investment gap is matched by lower innovation output, as measured by the number of patent applications per million inhabitants, which is less than two-thirds that of the US and less than half the US for patents in the ICT sector. Europe's total patent output reaches only two-thirds of China's, dropping to just one-quarter in the ICT sector ([15]). Part of the reason lies in the fact that intangible-heavy investment is often harder to finance through a system dominated by bank lending, since patents, software and data offer little collateral value and are subject to different accounting regimes. Young European tech firms, with few tangible assets and short credit

([14]) Eurostat and OECD figures show that, as a share of GDP, R&D spending in 2024 amounted to 2.7% for China, 3.4% for the United States and 2.3% for the European Union.

([15]) OECD Intellectual property statistics.

histories, are therefore structurally disadvantaged in a credit system built around collateral (see also below).

Graph 1.6: **Manufacturing production volumes and business churn in the EU**



Notes: a) EII stands for energy intensive industries and includes manufacturing and industrial sectors that have high energy and fuel costs relative to other operational expenses.
Source: a) European Commission ; b) European Commission and US Census Bureau.

High energy costs have weighed mainly on the cyclical component of TFP, but the new shock risks making them a durable drag. Wholesale gas and electricity prices (reaching levels 8 and 5.6 times, respectively, as high as those in the US in 2022) led EU firms to cut capacity utilisation, weighing on TFP's cyclical component through 2023–24. As prices started easing from late 2022, industrial production recovered in most sectors, except for energy-intensive industries (EIIs), which were hit hard by the shock (Graph 1.6.a)**.** Their relatively small size in terms of value added, however, implies only a limited effect on aggregate productivity and on economic activity. The cyclical component of TFP growth recovered in 2025, exceeding the US's but overall TFP growth remained below the US rate (1% vs 1.2%) and is expected to fall again to 0.3% in 2026 (vs 1.2% in the US) with a negative 0.2 percentage point contribution of its cyclical component. If energy prices remain high relative to those of competitors, the drag could become perennial, as firms would adjust investment and location decisions rather than just capacity utilisation. This could matter well beyond traditional energy-intensive industries: the technologies now driving productivity growth, notably AI and the data centres that support it, are themselves highly energy-intensive (see Box 1 in Chapter 4).

Limited reallocation and adaptive capacity explain the EU's weak productivity growth

Productivity growth depends on innovation and an economy's adaptive capacity. That capacity operates through three main channels. The *first channel*, incremental improvements, is driven by existing firms raising efficiency through economies of scale, process innovation, and organisational improvement, without major displacements in other sectors. The *second channel*, creative destruction (or reallocation channel), is the Schumpeterian process by which new innovations render existing technologies obsolete and new firms displace existing ones (Aghion et al., 2021). This is the channel through which the productivity gains of successful innovators spread through the economy: if unproductive incumbents are not displaced, those gains remain contained rather than diffusing more broadly. Finally, the *third* channel (diffusion) sits between the two: existing firms adopting technologies they did not invent themselves, without being displaced by their originator. This can matter as much for aggregate productivity as displacement itself. The EU has relied heavily on the first channel and comparatively little on the second and, as later sections show, has struggled with the third as well. This framework, formalised by Aghion and Howitt (1992) and extended in Aghion et al. (2021) to account for the role of institutions and policy in shaping the pace of creative destruction, implies that an economy can be highly innovative at the firm level and still grow slowly in aggregate if its market structures and institutions prevent that innovation from translating into reallocation or diffusion.

Limited churn and renewal in the EU are visible in firms, market value, and R&D leadership alike. The EU firm population is characterised by many small, mature, low-growth firms and little churn: few firms exit when productivity stagnates, and few of the newer innovative firms scale when conditions favour growth ([16]). Business birth and death rates confirm this pattern: both have been consistently lower in the EU than in the US every year since 2017 (a couple of percentage points on average, indicating lower business dynamism), with the gap widening further from 2021 (Graph 1.6.b). Lower firm entry limits the pool of potential challengers, while lower exit leaves low-productivity incumbents in place for longer, together capping the pace at which resources can shift toward more productive uses.

The EU's largest firms have changed, but not towards new technologies. In 2023, the aggregate market value of US-listed firms was roughly $34 trillion higher than that of European listed firms, with the gap most pronounced in R&D-intensive industries and those with high returns to scale. The two markets also differ in how their top ranks have been renewed. In both markets, most of today's ten largest listed companies were not in the top ten two decades ago. In the US they have been displaced by young technology firms, most of them founded since the 1990s. In the EU, by contrast, the new leaders are mostly long-established firms, notably in luxury and consumer goods, with only two technology firms among them, both founded decades ago (Table 1.1). Europe's top corporate ranks thus show some turnover, but little renewal through new firms in new technologies.

([16]) See IMF (2025).

Table 1.1: **Top US and European companies ranked by their market capitalisation**

Ranking	2005		2025	
	US	**EU**	**US**	**EU**
1	General Electric	TotalEnergies	Apple	LVMH
2	ExxonMobil	Royal Dutch Petroleum	NVIDIA	SAP
3	Microsoft	Sanofi	Microsoft	ASML
4	Citigroup	Eni	Alphabet (GOOG)	Hermès
5	Walmart	Deutsche Telekom	Alphabet (GOOGL)	L'Oréal
6	Pfizer	Telefonica	Amazon	Inditex
7	Bank of America	Orange	Meta	Siemens
8	Johnson & Johnson	Banco Santander	Tesla	Deutsche Telekom
9	AIG	Siemens	Broadcom	Schneider Electric
10	IBM	Nokia	Berkshire Hathaway	TotalEnergies

Source: S&P 500 and EURO STOXX 50.

A similar pattern is visible among the EU's most R&D-intensive firms (Fuest et al., 2024) ([17]). The EU's top three corporate R&D spenders have remained almost unchanged for two decades whereas the leading US spenders are now technology firms that are, on average, considerably younger than their EU counterparts (Table 1.2).

Table 1.2: **Top-3 R&D spenders by region and their industries over time**

	2003	**2012**	**2024**
US	Ford (auto)	Microsoft (software)	Amazon (software)
	Pfizer (pharma)	Intel (hardware)	Alphabet (software)
	General Motors (auto)	Merck (pharma)	Meta (software)
EU	Mercedes (auto)	VW (auto)	VW (auto)
	Siemens (electronics)	Mercedes (auto)	Mercedes (auto)
	VW (auto)	Bosch (auto)	BMW (auto)
Japan	Toyota (auto)	Toyota (auto)	Toyota (auto)
	Panasonic (electronics)	Honda (auto)	Honda (auto)
	Sony (electronics)	Panasonic (electronics)	NTT (telecom)

Source: 2025 EU Industrial R&D Investment Scoreboard.

This weak churn reflects a set of structures, institutions and policies, each with a distinct channel to productivity ([18]). First, market fragmentation, regulatory complexity and size-dependent rules limit firm scale (firm dynamics). Then, limited financing opportunities for riskier and more intangible-intensive firms makes it more difficult for entrants to challenge incumbents (capital). Weak commercialisation and adoption keep ideas from spreading (innovation and diffusion). Also labour-market institutions affect how readily firms are able to restructure and workers to move (labour). The link to productivity is direct for the first three; for labour-market institutions, it runs mainly through firm scale and is harder to establish.

Firm dynamics

Regulations aim to address market failures and/or promote equity, but they also impose costs that can constrain firms' ability to invest and scale. This matters for productivity

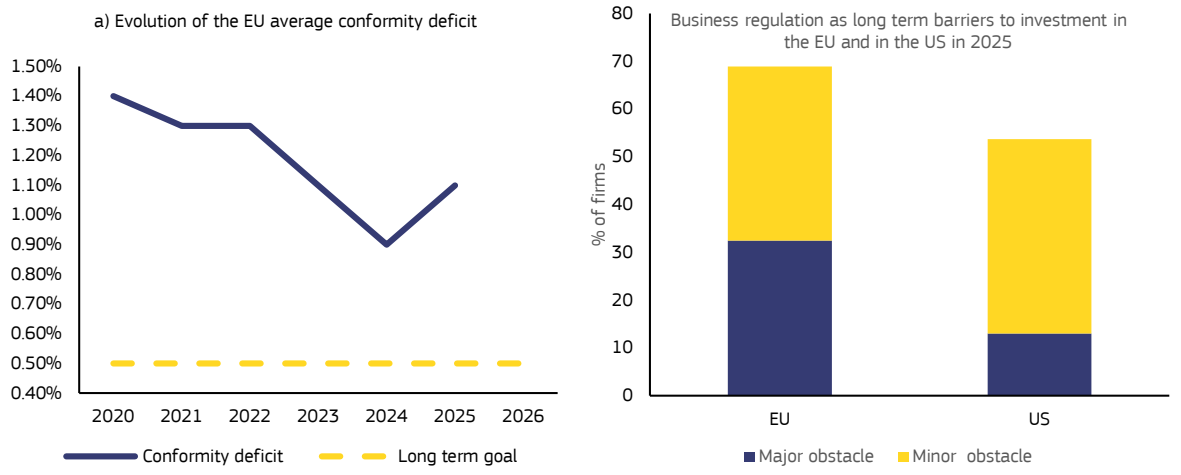
([17]) Based on the EU Industrial R&D Investment Scoreboard.

([18]) Some of these factors identified as far back as the Sapir Report (2003) including how freely resources can move between firms, how intense competitive pressure is, and how large a market EU firms can reach.

specifically where it keeps firms below the scale at which learning curves and network effects generate gains, not simply where it raises costs or slows growth generally. Non-uniform regulatory frameworks across Member States do exactly this, independently capping how large EU firms can grow at home before they even reach the innovation frontier where scale becomes productive.

Single Market barriers and fragmentation limit firms' addressable home market. This caps the scale at which learning curves, network effects and, ultimately, productivity gains depend. The Single Market has contributed more to European welfare and productivity than any other integration effort, reaching every Member State (European Commission, 2025a), but national implementation of the Single Market laws continues to fall short of EU targets. The conformity deficit, the share of directives transposed incorrectly or incompletely, is particularly persistent, as such shortcomings are harder to address than outright failures to transpose (Graph 1.7.a). National barriers identified in the Single Market Strategy, the so-called 'Terrible Ten' ([19]), continue to hold back businesses and citizens, especially as regards services, implementation of standards and the lack of recognition of professions (European Commission, 2025g). Recent research finds that financial and product market frictions constrain European firms' ability to scale ([20]). Effective solutions to ensure cross-border provision of financial services in the EU are currently either absent or hindered by varying national rules implementing EU legal acts. Non-aligned supervisory practices and weak supervisory convergence tools and powers at EU level exacerbate these issues. These barriers to the cross-border provision of services hinder the establishment of a genuine Single Market for capital. They lead to market inefficiencies, limited economies of scale, reduced liquidity in capital markets, increased costs for investors, restricted access to a broader investor base across borders, and higher cost of capital for EU companies, ultimately undermining the productivity and competitiveness of the EU economy.

Graph 1.7: **The EU Single Market and regulation**



Notes: Graph a): The conformity deficit is the percentage of EU Single Market directives that Member States have implemented incorrectly or incompletely in national law.
Source: Graph a): European Commission; Graph b): EIB.

([19]) 'Terrible Ten' include (i) overly complex EU rules, (ii) lack of Single Market ownership by Member States, (iii) complicated business establishment and operations, (iv) recognition of professional qualifications (v) long delays in standard-setting that weigh on innovation and competitiveness (vi) fragmented rules on packaging, labelling and waste (vii) outdated harmonised product rules and lack of product compliance (viii) restrictive and diverging national services regulation (ix) burdensome procedures for temporary posting of workers (x) territorial supply constraints. See European Commission, (2025g) for more details.

([20]) Becker and Monteiro (2026).

The regulatory burden is perceived as a constraint on firms' ability to pursue productivity gains. The EU's regulatory landscape presents a mixed picture: progress in some areas is offset by persistent perceptions of regulation as an obstacle to business and investment. Hard-data indicators (OECD PMR) show EU product-market regulation is not more restrictive than in non-EU OECD countries ([21]). Yet, the perception-based measures (Eurobarometer, and the EIB survey, which allows EU-US comparison) consistently show a less favourable picture: the share of EU firms citing regulation as a major investment barrier is higher than in the US, and it rose further in 2025 ([22]) (Graph 1.7.b). Whether these costs are absorbed passively or actively deter entry and growth depends, in turn, on how exposed incumbents are to competition.

The design of competition policy, not just its intensity, determines whether competition supports creative destruction. Competition shapes that process through two channels, namely incumbents' exposure to displacement and the ease with which new entrants can challenge them, and both can fail. Aghion et al. (2005) find an inverted-U relationship between competition and innovation: too little competition lets incumbents rest on their rents, but too much can also blunt innovation incentives for firms further from the technological frontier. Policy can err in either direction. In the US, big tech firms (such as Google, Microsoft, Amazon) drove strong growth during the 1990s IT revolution, but as merger control and other competition policies did not keep pace with their scale, consolidation proceeded with limited constraints. Rising concentration may have contributed to weaker US business dynamism since the mid 2000s. and be one of several factors behind a productivity slowdown shared by most advanced economies. This points to the value of merger control that also weighs long-run innovation incentives alongside current market share and price effects, in order to sustain the creative-destruction channel over time (Aghion et al., 2021). The EU has addressed the same concern differently, regulating digital markets ex-ante to keep them contestable, for example through the Digital Markets Act. This approach carries the opposite risk: if the regulatory burden is not well calibrated, it could discourage entry and competition, particularly by firms furthest from the technological frontier, for whom compliance costs weigh heaviest relative to their size.

Size-dependent obligations and requirements can also discourage firms from growing. In several Member States, some obligations, such as reporting requirements, worker-representation rules or parts of employment protection, apply in full only once firms cross specific size thresholds. The same design feature appears in EU legislation, where several directives (for example on accounting and sustainability reporting) scale obligations with firm size. These rules serve legitimate objectives, but in some cases it has been found that firms tend to cluster just below the cutoffs rather than grow past them (Garicano et al., 2016). Where such thresholds bind, the cost shows up in forgone scale rather than weaker churn: a firm that stays deliberately small may never reach the scale at which productivity gains accrue. How large this effect is in aggregate depends on how many firms are affected and is harder to establish.

Capital: savings and investments

EU savings are abundant, but financial market fragmentation and a thin venture capital market prevent much of them from reaching the firms that could use them most productively. This affects young and innovative firms most, blocking entrants that would otherwise displace incumbents and capping the scale reached by those that survive.

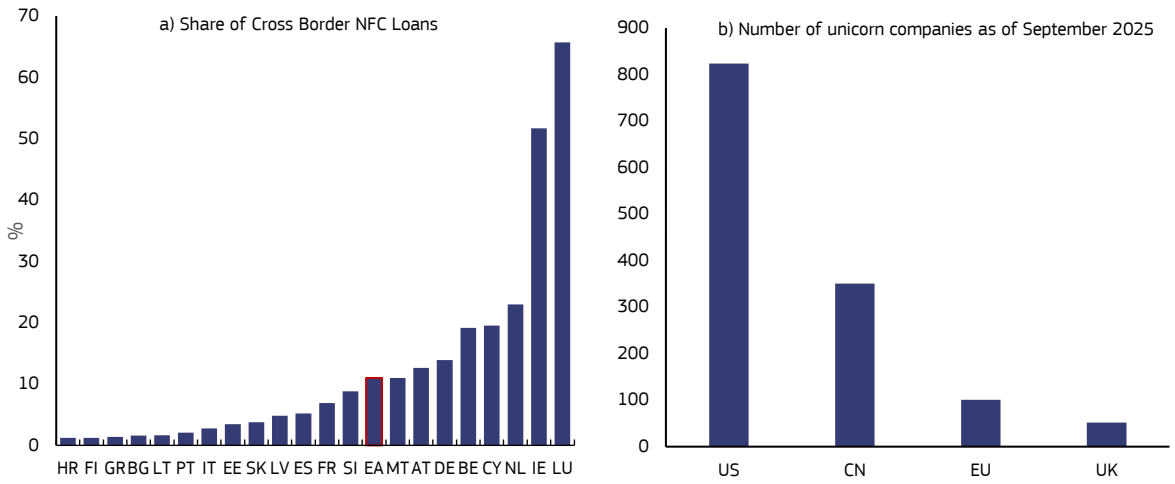
Bank lending in the euro area remains strongly domestic. Cross-border bank loans accounted for only around 11% of the total in mid-2026 (Graph 1.8.a). For non-financial corporations in some

([21]) OECD Product Market Regulation.

([22]) Flash Eurobarometer Surveys no. 557, 543, 524, 507 and EIB Investment Survey 2025.

of the largest economies, such as France, Italy and Spain, the share is around 5% (or less) of total loan volumes (Brandão Marques et al., 2026). This fragmentation hinders the efficient allocation of savings and weakens competition among intermediaries, raising intermediation margins and keeping capital from reaching the firms best placed to use it productively, wherever in the EU they are located. A major driver of this fragmentation is the incompleteness of the banking union – including the heterogeneity in national insolvency regimes (Coutinho et al, 2023) – and the remaining different national prudential and supervisory rules, which act as barriers to cross-border lending.

Graph 1.8: **Cross border firm financing in the EU and number of unicorn companies across countries**



Notes: Graph b): A unicorn is defined as a venture-backed company that has raised a venture round with a valuation of at least 1 billion USD. An 'active' unicorn is one that has not been exited, meaning that it is/was venture-backed as of the year shown. Companies are geolocalised based on headquarter location.
Source: Graph a: ECB; Graph b: European Commission calculations based on Pitchbook.

The EU's venture and growth capital market is a fraction of that of the US, and this gap falls hardest on young, innovative firms. Relative to the size of the economy, the value of venture and growth capital deals in the EU is only around one-quarter of that in the US, at roughly 0.2% of EU GDP ([23]). In absolute terms, the gap is wider. As of September 2025, the number of unicorn companies in the US was more than 8 times that in the EU (Graph 1.8.b). This is compounded by more bank-based, relationship-lending European financial systems, where established relationship banking finances incremental innovation well but provides comparatively little equity capital to new, unproven entrants (Sanders et al. 2020). Debt financing is poorly suited to this kind of young and innovative firms. When investment is concentrated in intangible capital, the outcome is binary: the investment pays off only if the underlying idea succeeds, and if it does not, the firm is left holding assets with little resale value. Only equity, which can absorb the downside in exchange for a share of the upside, is structurally suited to this risk. Since these unproven intangible-heavy entrants are disproportionately the ones capable of the fast, disruptive growth the creative-destruction channel depends on, this financing gap not only slows individual firms but also removes future challengers to the EU's less productive incumbents.

Together, reforms to advance the savings and investments union (SIU) could raise long-term EU GDP by about 3%. Around two percentage points would come from deeper banking integration and one from expanding venture capital, whose contribution is smaller because of its limited size in the European economy. By lowering barriers to cross border banking and investment,

([23]) Lehmann (2026).

SIU reforms raise output by allocating savings better across countries, giving firms access to a wider range of lenders and investors, and strengthening competition among intermediaries. When implemented alongside broader business-dynamism reforms, the two sets of measures reinforce each other: the complementarity would add a further percentage point of GDP on top of the 3% above (Brandão Marques et al. 2026).

The small scale of funded pensions further limits the supply of long-term capital for high-growth firms. In most Member States, pensions are provided mainly through public pay-as-you-go schemes, with only small funded occupational (second-pillar) and personal (third-pillar) schemes, so the pool of pension assets available for investment is small relative to countries with more fully funded systems. The Netherlands, Denmark and Sweden are the main exceptions, with large funded occupational pension sectors. Across the EU, however, investment rules, the limited size of pensions funds and risk preferences also limit the share of pension assets invested in equity and venture capital (Brandão-Marques et al., 2026), compounding the venture-capital gap discussed above.

Innovation and technological diffusion

The EU generates strong research output but struggles to commercialise and diffuse it. This limits the productivity gains that knowledge alone cannot deliver. The EU holds a comparatively strong position in basic research output. The EU accounts for around 6% of the world's population but as many as 15% of its researchers. It also produces almost one-fifth of the world's most-cited scientific publications ([24]). However, this is not matched downstream. Corporate R&D remains weak, and technology adoption by firms remains slow and uneven (see also Chapter 4). Adequate knowledge creation combined with only weak commercialisation and slow diffusion points to reallocation and adoption frictions rather than a simple funding gap. These frictions blunt the creative-destruction channel directly: knowledge that is not commercialised or diffused cannot displace less productive incumbents, so its productivity payoff is never realised.

The technologies now driving productivity reward exactly the capacities the EU lacks: financing intangible investment and scaling fast. Digital platforms and AI exhibit learning curves and network effects, where unit costs fall and product quality itself rises as a firm's customer base and data grow, representing a self-reinforcing dynamic rather than a one-off cost advantage. This rewards precisely the two capacities shown above to be weakest in the EU: (i) large-scale intangible financing, since these technologies require heavy upfront investment in software, data and organisational capital; and (ii) fast scale-up capacity, since a larger customer base compounds into better products and lower costs. The firms best placed to build AI-native business models are typically new entrants rather than incumbents but building such a business is not the same as scaling it: entrants that cannot access this financing or scale quickly cannot capture these gains, regardless of how innovative they are at a small size. A further, institutional constraint compounds this: adopting new technology at the firm level typically requires reallocating workers internally, retraining, or reassigning them to more efficient roles alongside capital. This reallocation is itself constrained by a skills gap ([25]). Firms across the EU report persistent shortages in the occupations needed to develop, adopt and deploy new technologies effectively, meaning that even firms with access to capital and willing to restructure cannot always find the workforce to do so. Migration, both within the EU and from outside it, can help ease these shortages but has done so only partially. Intra-EU labour mobility remains low (see Labour below), and recruitment of skilled workers from outside the EU is still fragmented, which the EU Talent Pool aims to address (see Avenues below). This also demonstrates the need for far-reaching skills development actions

([24]) European Commission (2026j).

([25]) EIB Investment Survey.

within the EU, as foreseen in the Union of Skills. This includes building a strong foundation in initial education and training; frequent and up-and reskilling of workers, so as to reduce labour shortages and provide business with the necessary skills profiles.

Facing these constraints at home, the firms best placed to displace EU incumbents may be tempted to leave the EU instead, and their productivity gains may then accrue elsewhere. Looking for more attractive financing, better access to markets and lower regulatory complexity, many European startups and scaleups choose to relocate parts of their business outside the EU. Most notably, between 2008 and 2021, almost 30% of the "unicorns" founded in Europe relocated abroad, mostly to the US ([26]). That so much of Europe's most dynamic capital chooses to reallocate itself outside the EU, rather than within it, is perhaps the starkest illustration of the pattern this chapter has traced. These constraints are explored further below, with a focus on expanding exit opportunities, deepening Single Market integration and mobilising capital more effectively

Labour

Reallocation requires workers to move alongside capital and upskill or reskill: churn among firms only raises productivity if the workers freed up by exit or restructuring can reach the firms that need them and have the appropriate skillset. Labour-market and social institutions, such as employment protection and social security, aim to safeguard working conditions. Their effect on reallocation is not clear-cut. They affect both how readily firms restructure and whether workers can afford to move, through pension portability and housing costs but also taking into account other ties to their current location. Constraints related to finding and retaining workers with the right skills, as well as broader labour and skills shortages, also play a role.

Productivity growth depends on a skilled workforce, yet declining educational outcomes and widening skills gaps risk holding back the EU's growth potential. Around one in three 15-year-olds in the EU do not reach the minimum proficiency level in mathematics (33.9%) or reading (31.3%), and 25.9% underachieve in science, while only 4.8% to 6.8% reach top-performer level, depending on the subject. Since 2015, underachievement has risen significantly and the share of top performers has fallen in all three subjects, leaving the EU behind other advanced economies. Contributing factors include digital distractions, persistent teacher shortages, declining parental engagement and the uncritical use of AI ([27]). At the same time, digitalisation and AI are increasing demand for both basic and advanced digital competencies. Beyond technical expertise, the future workforce will need critical thinking, data literacy, cybersecurity awareness and the ability to use AI responsibly.

As the EU's working-age population shrinks, the efficient allocation of labour matters more than ever. In the past, high unemployment and a growing population provided an ample flow of new workers, making misallocation a comparatively minor cost. Even with substantial untapped potential among inactive people, including over 8 million young NEETs (not in employment, education or training), the slack is disappearing. As labour becomes scarcer, every worker stuck in a low-productivity job or unable to move to a better-matched one is a cost the economy can increasingly less afford to bear. As AI changes which tasks, occupations and firms are most productive, gains depend on workers being able to move and retain jobs in sectors where the technology is deployed; a slowly reallocating labour market will capture less of the payoff (see also Chapter 4). Recent research finds that employer-to-employer mobility in the US is higher than in

([26]) Draghi (2024).

([27]) European Commission (2026f).

most European national labour markets, with only the Nordics and Austria approaching US levels (Schoefer, 2025) ([28]). Job-to-job mobility across individual age groups has increased over time in the EU, although aggregate mobility has declined as demographic ageing has shifted the workforce towards older, less mobile workers (Arlia et al. 2025). The distribution of EU jobs (Graph 1.9.a) highlights that jobs held for ten years or more have consistently accounted for around a fifth of total EU employment since 2002, and jobs held five years or longer for roughly 30% — shares that have barely moved across two decades and multiple shocks, including the pandemic and the 2022 energy crisis. Part of this stability reflects ageing, since older workers have longer tenures, but it is also consistent with the EU's low churn being a structural feature of its labour market rather than something that varies mainly with the business cycle. Restricted mobility may limit the productivity gains of creative destruction even where firm-level churn occurs: capital may move to more productive firms while the workers best suited to using it remain elsewhere. Ageing compounds this: beyond shrinking the workforce generally, it reduces the pool of prospective entrepreneurs specifically, since entrepreneurship peaks among 30–44-year-olds and older cohorts are less likely to start new firms (Fedotenkov and Vandeplas, 2026). It may also slow the labour force's adjustment to changing skill demands, including digital and AI skills: older workers tend to participate less in training and have less time to recoup its returns, so a workforce tilted towards older cohorts may adapt more slowly to new technologies (OECD, 2019) ([29]).

Employment protection legislation (EPL) serves important objectives, including employment stability and worker protection, but, if not well-calibrated, can also come with trade-offs for economic dynamism. EU countries maintain considerably more restrictive employment protection than non-EU OECD countries (Graph 1.9.b) and stricter hiring and firing rules have been found to reduce job reallocation (Haltiwanger et al., 2014) and within-industry job-to-job transitions (Bassanini and Garnero, 2012). Stricter protection is also associated with higher cash holdings, lower leverage and slower investment among the most exposed firms ([30]), consistent with firms favouring safer, incremental innovation when failed bets are costly to unwind ([31]). Whether these effects lower aggregate productivity, however, is difficult to establish empirically (Cahuc and Palladino, 2024) ([32]). This does not mean less social protection, but a different focus: protecting workers while facilitating transitions between jobs. Not all forms of employment protection have the same effects: lengthy and unpredictable dismissal procedures can be particularly disruptive, while job protection can also serve efficiency objectives by insuring workers against dismissal risks. The aim should therefore be to avoid unnecessarily impeding labour mobility while preserving adequate protection. Support through income replacement, retraining and help in finding a new job can complement job protection and facilitate transitions (see "Flexicurity" below).

([28]) See also Causa and Abendschien (2021).

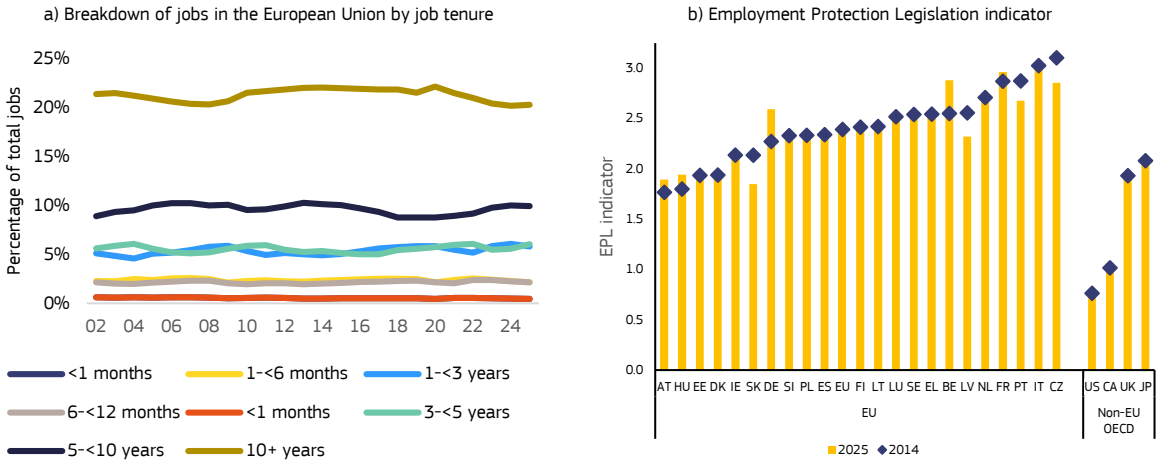
([29]) OECD (2019).

([30]) See also Dolls et al. (2012), Simintzi (2015), Karpuz et al. (2020), Bai et al. (2020), Beuselinck et al. (2021).

([31]) Cross-country evidence points in the same direction: across ten major economies, unicorn creation per capita is negatively correlated with restructuring costs, measured as the months of compensation a large firm pays to lay off staff. The US, Switzerland, Sweden and Denmark combine low restructuring costs with high unicorn creation, while Italy and Spain show the opposite (Wijngaarde, 2026). The correlation rests on a small sample and does not control for other differences between these economies, such as the depth of their venture capital markets.

([32]) Overall, EPL drag on reallocation, and productivity growth is genuinely difficult to measure. See Cahuc and Palladino (2024).

Graph 1.9: **The EU labour market**



Source: Graph a): Labour Force Survey; Graph b): OECD.

Incomplete pension and social security portability, both across and within Member States, raises the personal cost of switching employers, discouraging workers from moving to a better-matched, more productive job even when one is available. Housing costs in the EU's most dynamic regions can compound this friction, particularly for cross-border moves. Because a worker's productivity is generally higher in a better-matched role, provided that they have the opportunity to upskill or reskill if needed, each foregone move can result in a small, uncounted loss of output; multiplied across the workforce, these losses may weigh on labour productivity growth, though the aggregate impact is difficult to establish empirically ([33]).

Avenues to boost dynamism and long-term growth

GDP comparisons understate European living standards. Measured by income at current prices, which also captures relative price effects, EU income per capita has partly converged towards the US level (Graph 1.10.a) ([34]). Moreover, universal healthcare, labour protections, generous leave policies, and dense safety nets mean a given level of output translates into more security and more evenly shared welfare than in many other advanced economies ([35]). Life expectancy has risen steadily in the EU (Graph 1.10.b) and EU Member States have a lower preventable death rate despite spending less on healthcare per capita (Papanicolas et al., 2025). Income inequality is also markedly lower, with the top 10% capturing around 27% of after-tax

([33]) The Fair Labour Mobility Package adopted in September 2026, which includes a European Social Security Pass and a Skills Portability Initiative, aims to address the cross-border dimension of this gap.

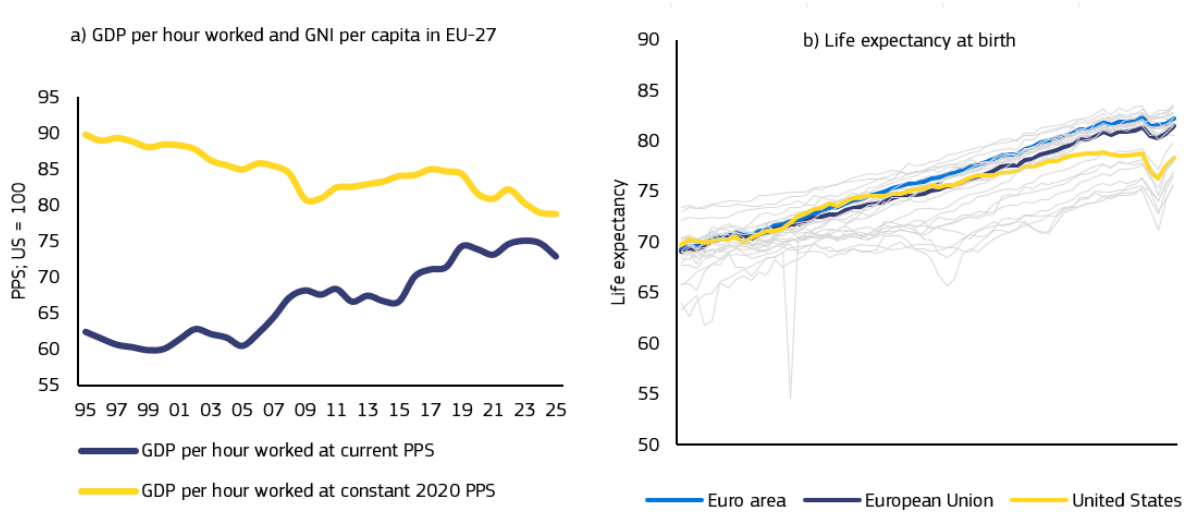
([34]) Much of the recent debate (e.g. Ackerman, 2026; Krugman, 2026a–e) has focused on whether constant or current purchasing power parities (PPPs) better measure the EU-US productivity gap. The two sides answer different questions. Output at constant prices measures productivity, while income at current prices (GNI at current international prices) better reflects living standards, as it also captures relative price and terms-of-trade effects. On the latter basis, the EU-US gap has been broadly stable, and per-capita EU income has partly converged towards the US level. The underlying argument is that productivity gains in sectors whose prices fall on world markets benefit importers as much as producers: the long US lead in ICT coincided with a steep fall in IT prices, limiting the rents the US producers could capture. The implied terms-of-trade gains for Europe are, however, not clearly visible beyond ICT goods, and may partly reflect measurement issues. Nor is the past pattern guaranteed to repeat: if prices of AI services, where the US leads, in relative terms, fall much less than IT prices did, then Europe's relative living standards would suffer, and AI dominance may confer strategic leverage, including dependency risks, that dominance in ICT did not. See also Chapter 4.

([35]) EU Member States continued to converge economically even through successive crisis. See Licchetta and Mattozzi (2024).

national income in the EU, versus 37% in the US (Schnabel, 2026). Based on the latest data ([36]), the Gini index is higher in the US than in any EU Member State.

But closing the European productivity gap is compatible with, and in fact necessary for, sustaining Europe's welfare model. The reallocation frictions diagnosed above do not primarily stem from the objectives of the social model, such as healthcare or income security. They mostly lie elsewhere: in fragmented capital and product markets, a thin supply of risk capital, regulatory complexity, divergent insolvency regimes and slow technology diffusion. Where they do touch social institutions, such as some labour regulations, or pension entitlements, the issue is how these are designed, often for a different economic environment. Adapting that design, rather than withdrawing protection, would ease reallocation. Stronger growth is also what will allow Europe to keep financing its social model as ageing, the energy and technology transition and higher defence spending add to public spending pressures in the years ahead. The policy challenge mirrors the diagnosis: Europe's policy mix has been built to preserve firms, jobs and existing structures, and it now needs to shift towards adaptation, helping capital and workers move to more productive uses while keeping people secure. This is a change in the means, not in the social objectives.

Graph 1.10: **Labour productivity and living standards**



Source: Graph a): European Commission; Graph b): World Bank.

This section sets out three avenues that aim at responding to the weak reallocation and limited creative destruction diagnosed above ([37]): innovation and knowledge (commercialising and diffusing research, skills, and the reallocation of firms and workers through exit, restructuring and mobility); **markets** (the Single Market, regulation, competition and external trade access); and **funding** (risk-bearing private capital, including institutional investors, and public spending where markets fall short). Not all of this can be delivered at EU level, since many of the levers sit with Member States, including, among others, insolvency and labour market design, pension and social security portability, housing, permitting, and justice systems. Moreover, EU initiatives only work if they are implemented nationally. The conformity deficit, the minimum-standards approach of the insolvency directive and the risk of gold-plating all illustrate this

([36]) World Bank Poverty and Inequality Platform (PIP). More broadly, poverty rates in the EU also compare favourably to global benchmarks: an average of 17.3% of the EU population lives below 60% of median income, and extreme poverty is markedly rarer than the global average.

([37]) Labour and innovation/diffusion constraints are addressed mainly under Innovation and knowledge, capital constraints under Funding, and firm-dynamics constraints split across Markets (scale, regulation) and Innovation and knowledge (competition policy).

dependency. These three policy avenues are mutually reinforcing. Market-dynamism reforms raise the returns to financial integration by expanding the set of firms capable of scaling; deeper capital markets in turn fund the innovation and adoption that dynamic markets reward; and pursuing financial, market and innovation reforms together yields more than the sum of each pursued alone. Implementation pace matters as much as design, since creative destruction generates political resistance: its costs are immediate and concentrated, while its benefits are dispersed and often accrue to firms, workers and technologies that do not yet exist (Fernández and Rodrik, 1991).

Innovation and knowledge

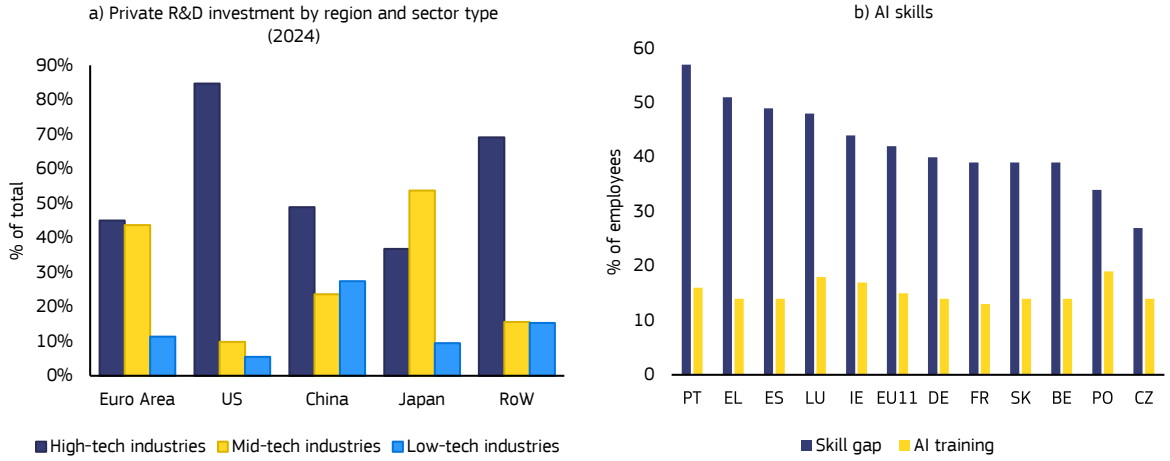
EU policy can lower the cost of adopting new technology and mobilise private R&D. On technology diffusion, the May 2026 political agreement to simplify the AI Act lowers the cost of adopting the technology. On R&D mobilisation (Graph 1.11.a), the European Commission's Startup and Scaleup Strategy (May 2025) and the proposed European Innovation Act aim to strengthen the pipeline from research to market by removing barriers to growth, simplifying access to funding, and making regulation more coherent for high-growth companies (SRIP, 2026). At the same time, the new European Research Area Act aims to further strengthen the broader framework conditions for knowledge creation and circulation. The link between skills and firm-level capacity (Graph 1.11.b) is addressed to some extent in the Union of Skills, and the Apply AI and InvestAI initiatives under the AI Continent Action Plan. This matters. This matters because AI's productivity payoff depends less on access to the technology than on firms' ability to retrain and redeploy their workforce around it, a capacity weakest in the EU (Canton, 2026; Bloom et al, 2012).

On firm dynamism, EU policy is advancing on two complementary tracks: a fast-track regime for young and small firms, and economy-wide harmonisation of insolvency rules. The "EU Inc." proposal, endorsed as a 2026 priority, offers young and small firms a fast, low-cost route to register, restructure or exit. The directive that harmonises certain aspects of insolvency law ([38]), in force since April 2026, addresses core insolvency rules as part of the Capital Markets Union agenda. This is a reform with a double payoff, since insolvency-regime heterogeneity is also one of the drivers of cross-border banking fragmentation ([39]). The directive sets minimum standards only, so substantial national differences will persist even after transposition in 2029. Deeper harmonisation may be needed to remove this barrier to exit and to cross-border lending. Together, these reforms target the creative-destruction channel directly: faster, cheaper exit lets resources tied up in low-productivity incumbents be released for reallocation.

([38]) Directive (EU) 2026/799.

([39]) For a more comprehensive discussion on the drivers of fragmentation in the EU banking sector, see also European Commission (2026d).

Graph 1.11: **Private investment in innovation and AI skills**



Source: European Commission.

Labour mobility remains a structural constraint on reallocation and productivity, and improving pension portability could ease it. Across sectors, workers leaving declining industries ([40]) need retraining and upskilling to move into growing ones. Across borders, mobility is also held back by slow recognition of professional qualifications and high housing costs in the most dynamic regions. Strengthening EU minimum standards on pension and social security portability, building on Institutions for Occupational Retirement Provision (IORP) II, and accelerating the European Labour Authority's cross-border role would directly address this. Legal migration can also help where domestic mobility alone cannot fill shortage occupations fast enough: a more streamlined, harmonised approach to skilled-worker admission, building on the EU Talent Pool,, would widen the available talent base and partly offset the smaller number of prospective entrepreneurs that ageing implies.

Reforming labour market institutions can also make it easier for firms to restructure and for workers to move into more productive jobs, while keeping workers secure. "Flexicurity" (i.e. combining flexibility for firms with security for workers) offers one framework for doing so. Flexicurity reforms aim to preserve workers' employment and income security while lowering the cost of restructuring, for instance through time-limited short-time work arrangements, portable severance and pension entitlements, and earnings-replacement support for workers between jobs (Boeri et al., 2012; Sapir, 2006) as well as up- and reskilling**.** The right mix and sequencing depend on each country's starting institutions rather than following a single template.

On skills, the Union of Skills framework is in place, and implementation is ongoing. Launched in March 2025 with around €150 billion in EU funds over 2021-2027, it includes, a number of initiatives, among which the already adopted a Council Recommendation on human capital in the EU (March 2026), STEM Education Strategic Plan and EU Talent Pool, each targeting a different gap with investment, foundational skills, and shortage occupations. The ongoing Skills Guarantee six pilot projects across the automotive sector aim to set an example of swift relocation of workers and skills towards growing and highly technological sectors. Effective implementation of these actions is important because the technologies driving productivity growth are increasingly skill-intensive, and firms across Europe continue to report shortages in the occupations needed to adopt them (SRIP, 2026). Without these skills, firms cannot adopt new technologies or redeploy

([40]) In recent years, employment declied in often high-productivity industries, such as automotive, while employment grew in lower-productivity activities, such as tourism.

workers towards them, however much capital they can access. The forthcoming Education Package, expected in the fourth quarter of 2026, is intended to strengthen basic skills through dedicated support for learners, cross-border cooperation between schools and further support for teachers.

A more assertive use of competition policy could directly target the weak competitive pressure. Concentrated markets can blunt innovation incentives even where prices remain contained; restoring incumbents' exposure to displacement means calibrating merger control to long-run innovation effects, not short-run price effects alone. In AI-related markets specifically, this means evaluating mergers and acquisitions by incumbents not only based on current markets shares, but also on whether they would foreclose future entry and innovation. It also means considering data-sharing conditions on approved mergers to prevent scale advantages in data and compute from becoming self-reinforcing (Aghion et al, 2021). More broadly, concentrated sectors could be subject to more systematic ex-post review for their effect on entry and innovation, not price alone.

Markets

The Single Market remains incomplete, capping the scale EU firms can reach. Product and services market fragmentation, including regulatory fragmentation, is being addressed through the One Europe, One Market Roadmap. Work is also ongoing on speeding up permitting. In parallel, there is a proposal to extend the application of the '28th regime' for goods to services, which remain more fragmented across national lines, so that firms can further scale across the EU without navigating 27 separate regimes.

Reducing the regulatory burden can also improve business dynamism in Europe. The Commission has made simplification a central pillar of its 2024-2029 mandate. The Competitiveness Compass calls for cutting burdens by at least 25% for all companies and 35% for small and medium-sized enterprises (SMEs), with €37.5 billion in recurring cost savings by 2029. The REFIT programme and twelve simplification "omnibus" packages cover areas from sustainability reporting to the implementation of the AI Act ([41]). At Member State level, the Commission is proposing a Pact against gold-plating, while the European Semester calls for easing restrictions on regulated professions and services, simplifying regulatory frameworks, reducing gold-plating, and lowering administrative burdens on market entry and cross-border activity. In some Member States, justice systems also need to become more effective, notably by reducing case backlogs and shortening court proceedings ([42]).

Affordable and secure access to key inputs of production such as energy and critical raw materials is also important to support European firms' growth. Despite large investments in clean homegrown energy over the past years, EU energy prices remain above those in other major world economies, weighing on competitiveness ([43]). The Commission aims to double the share of electricity in final energy consumption by 2040 and to strengthen the integration of Europe's electricity markets, where the EU's interconnection target of at least 15% by 2030 has yet to be met. The ongoing 2026 review of the EU Emissions Trading System will also consider the role of free allocations and the Carbon Border Adjustment Mechanism (CBAM). In particular, it will focus on

([41]) By mid-2026, twelve such packages had been proposed, delivering an estimated €14 billion in recurring administrative cost savings.

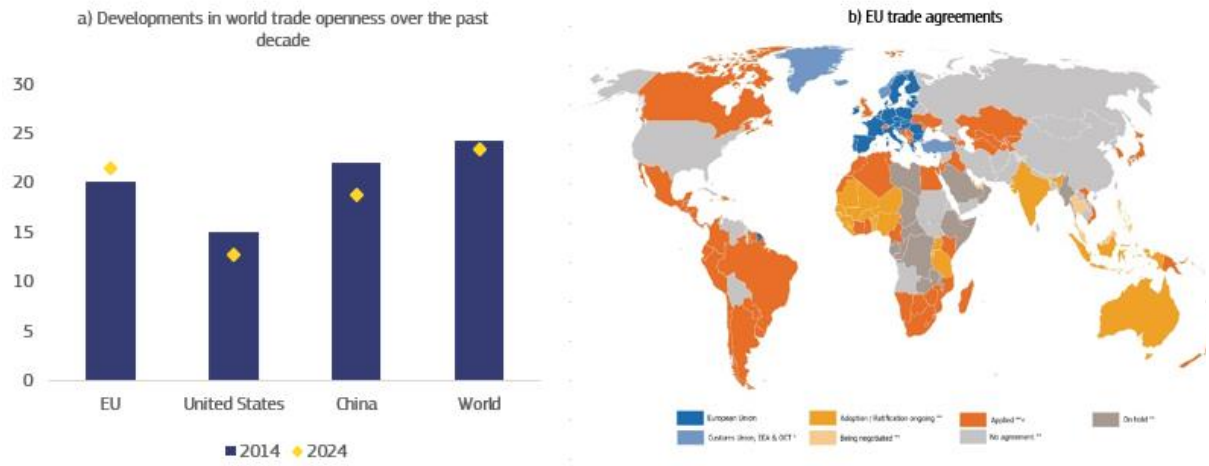
([42]) COM(2026) 200 final.

([43]) Between the start of the conflict in Iran in 2026 and September 2026, it is estimated that imported fossil fuels have cost the EU an additional €90 billion. See speech of EU Commission President Ursula von der Leyen on 16 September 2026 at the European Parliament on the 'State of the Union'.

how these instruments can shield EU energy-intensive firms from carbon-cost-driven competitive disadvantage vis-à-vis third countries, without altering the EU's decarbonisation targets for these sectors. To reduce strategic dependencies, the Commission also plans a new European Corporation on critical raw materials to purchase and stockpile critical inputs for electric vehicles, chips, batteries, clean tech and defence, among others.

Access to external markets also supports the growth of EU firms. Between 2014 and 2024, world trade openness - measured as imports plus exports relative to GDP - declined from 24.3% to 23.5% (Graph 1.12.a). This overall decline marks diverging trends: the EU became more open, while the US and China became less so. To date, the EU has built the largest network of trade agreements in the world, covering 80 countries (Graph 1.12.b), and over the past year this network has moved from negotiation to implementation. This expands the markets EU firms can access without relocating outside the Union, restoring the scale channel. Crucially, the possibility of expanding abroad hinges on an international level playing field. This is why the EU is engaged in a dialogue with China to rebalance its trade relationship. Yet, more work still needs to be done. In a recent European Commission–EIB survey ([44]), EU firms ranked customs procedures and tariffs among their main trade obstacles in 2025, second only to compliance with new regulations. Most respondents now see higher tariffs as a lasting feature of the trade environment rather than a temporary shock. This is a sharp change from 2023, when tariffs ranked among their least important concerns. The Commission President suggested to "work with you [PM Carney] on opening the door for Canada to be the first associate member of the EU" ([45]).

Graph 1.12: **Trade developments**



Notes: Graph b): * European Economic Area (EEA) / Overseas Countries and Territories (OCT). ** Free Trade Agreement (FTA), Deep and Comprehensive Free Trade Agreement (DCFTA), Enhanced Partnership and Cooperation Agreement (EPCA), Partnership and Co-operation Agreement with preferential element (PCA). + The updated agreements with Tunisia, and Eastern and Southern Africa are currently being updated; the updated agreement with Chile is under ratification. The DCFTA with Georgia does not apply in South Ossetia and Abkhazia. Mercosur: The interim trade agreement applies as of 1 May 2026. The interim trade agreement will be superseded by the EU-Mercosur Partnership Agreement, once the latter enters into force.
Source: European Commission.

([44]) European Investment Bank (2026b).

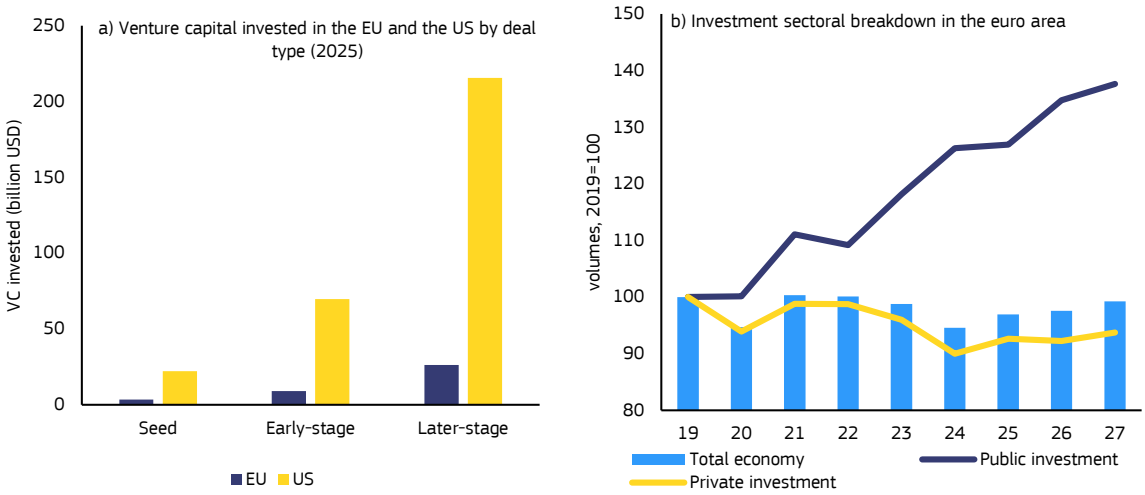
([45]) See European Commission (2026n) for more details.

Funding

In addition to reducing fragmentation within the internal market, an important objective of the Savings and Investments Union (SIU) strategy is to expand the supply of funding to our economy, including growth capital. In 2025, US venture capital investment was around eight times that of the EU (Graph 1.13.a). The EU-US venture capital gap is widest where firms need to scale: in 2025, venture capital invested in the US was 6.5 times that in the EU at seed stage, 7.7 times at early stage and 8.2 times at later stage (Graph 1.13.a). The SIU addresses this gap and the shortfall left by a financial system built around relationship lending, by encouraging institutional investors to to channel a greater share of their assets into venture and growth capital (see Chapter 3). Expanding the domestic pool of pension and mutual funds, discussed above as an underdeveloped source of long-term risk-tolerant capital in much of the EU would create larger pools of investable capital. In addition, the package on market integration and supervision adopted by the European Commission in December 2026, tries to address barriers to the cross-border provision of services that hinder the establishment of a genuine Single Market for capital. These barriers lead to market inefficiencies, limited economies of scale, reduced liquidity in capital markets, increased costs for investors, restricted access to a broader investor base across borders, and higher cost of capital for EU companies, ultimately undermining the productivity and competitiveness of the EU economy.

Public funding for strategic technologies has increased substantially. The EU has channelled around €120 billion of public co-funding into the technologies where the gap with the US is widest, through the Strategic Technologies for Europe Platform (€29 billion), the Chips Act (€80 billion) and EIB financing under the Biotech Act (€10 billion). The Commission's July 2025 proposal for the next EU long-term budget will boost investing in European competitiveness and economic security. The proposed European Competitiveness Fund with a total envelop of € 409 billion (including Horizon Europe) would become a key tool to bolster the competitiveness of European companies and strengthen the EU's industrial base, including by supporting 'made in Europe' technologies, products and services. Horizon Europe's budget would nearly double to €175 billion for 2028-2034, while simplifying access to funding through a single rulebook, extended lump-sum funding and target time-to-grant of around seven months. Yet public spending has not crowded in private investment: in the euro area, public investment has risen by more than a quarter since 2019 and is projected to be almost 40% above its 2019 level by 2027, while private investment remains around 7% below (Graph 1.13.b). Scale is therefore not the only constraint. Public R&I funding is unevenly distributed across Member States and instruments (EU Framework Programmes to R&I, the R&I-specific strand of Cohesion Policy, and national R&D budgets), which affects how well additional resources can be absorbed and calls for stronger cross-policy alignment (SRIP, 2026). More fundamentally, these instruments focus on the supply of research rather than on business underspending and the commercialisation gap diagnosed above. Demand-side instruments, such as public procurement of innovation in Strategic Technologies for Europe Platform (STEP technologies), and tax incentives weighted toward commercialisation-stage activity, rather than only R&D-input tax credits, could target this gap more directly than additional research funding alone.

Graph 1.13: **Venture capital and investment**



Notes: Graph b): The 2026–27 values are EU Commission forecasts.
Source: European Commission.

Even a well-functioning reallocation mechanism would not by itself correct chronic under-investment in sectors where private and social returns diverge. Market signals may not deliver enough investment in the green, digital or security sectors where future growth is expected (Draghi, 2024). Green activities and defence generate externalities that private incentives do not capture, while digital markets combine high fixed and low marginal costs with network effects, favouring concentration and disadvantaging entrants. This is the rationale for targeted public support for strategic technologies, such as the EU co-funding through the Strategic Technologies for Europe Platform, the Chips Act and EIB financing under the Biotech Act, described above.

EU funds have supported investment, and this support is expected to continue with the next Multiannual Financial Framework (MFF). With an envelope of €577 billion, the Recovery and Resilience Facility (RRF) has supported reforms and projects mobilising both public (Graph 1.13.b) and private financing, alongside cohesion policy funds. Although RRF disbursements will end in 2026, an investment cliff edge in 2027–28 appears unlikely. Part of the funding will reach the economy with a lag, via RRF loan and guarantee instruments and capital injections into national promotional banks, while the absorption of outstanding cohesion funds is accelerating and Security Action for Europe (SAFE) is being deployed. As part of the next MFF, the proposed European Competitiveness Fund will mobilise public and private capital at scale. Through a close connection with Horizon Europe, it will support the full investment journey from research and innovation, through scale-up and industrial deployment, to manufacturing.

2. MACRO FINANCIAL VULNERABILITIES

Introduction

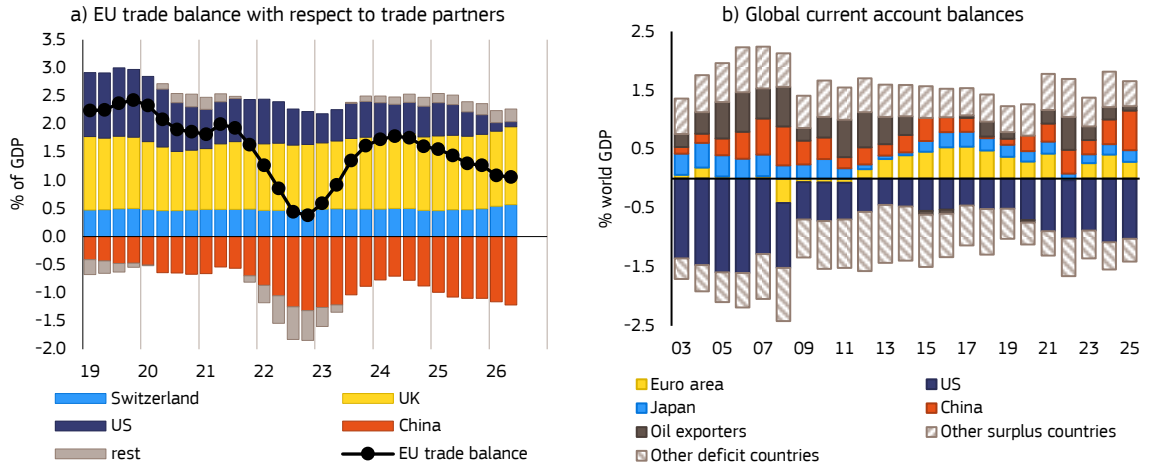
This chapter looks at how the EU's economic vulnerabilities have been developing over the last year and presents their outlook for the near future. It is a complement to the analysis undertaken under the EU's Macroeconomic Imbalance Procedure (MIP) and looks at overall economic developments that frame the country-focused analysis under the MIP. It considers both long-standing vulnerabilities and how they have developed, as well as new developments that could have consequences for economic growth or macro-financial stability in the future. It should not be read as a central scenario for the EU or the euro area; instead, its focus is on risks and developments that may merit a policy response, or closer surveillance.

External sector rebalancing eases EU macro-financial risks, but vulnerabilities persist in some Member States

The EU's external position contributes to the elevated global external imbalances, but much less than China's large surplus and the large US deficit. Global external imbalances - as defined by the IMF and measured as the sum of the absolute value of individual countries' or trading blocks' current account surpluses and deficits - decreased somewhat in 2025 but remained elevated nevertheless and continue to feature prominently on the global economic policy agenda. Among the four largest contributors, China's share increased while the contributions from the euro area and, to smaller extent, the US decreased (Graph 2.1.b). China's share in global surpluses has recently come near its record levels around 2007-2008. The EU's contribution to global surpluses has declined relative to a decade ago and also compared to 2024. The main contributor to the global current account deficit remains the US, accounting for around [three quarters] of the global current account deficit in 2025. The US current account deficit has doubled over the past five years, mainly due to strong domestic demand fuelled by large fiscal deficits.

Recent developments in the trade balance have been mainly shaped by trade with China. After some reduction, following its sharp post-COVID-19 rise, the EU's bilateral trade deficit with China began to widen again in 2024 and continued to increase throughout 2025 (Graph 2.1.a). By 2025, it had nearly doubled relative to its pre-pandemic level, reaching 1.1% of GDP. The magnitude of the China shock stands out among the different shocks that the EU economy is weathering. China's world goods export market shares have increased from less than 4% in 2001, to almost 15% in 2025 at the expense of major developed economies such as Japan, US, and to a lesser extent the EU. As the causes of this shock are deeply rooted in domestic structural issues in China (European Commission, 2026m), they are unlikely to recede any time soon. The implications it might have for the EU could be substantial and constitutes a potential risk in the medium term: lower exports due to lower Chinese absorption capacity, increased competition in third markets and at home, higher imports fuelled by large volumes at competitive prices, and domestic production substitution.

Graph 2.1: **Current account in the EU and the euro area and in other large world economies**



Source: Eurostat and European Commission forecasts and calculations.

While global current account balances widened, the euro area's external surplus has been narrowing. The euro area external surplus narrowed by 0.8 pp of GDP, to around 1.7% of GDP in 2025, and is projected to decline somewhat further in 2026 (Graph 2.2.a). Excluding the energy-shock years 2022–2023, this has been the lowest surplus since 2012, when the euro area moved from a current account deficit to a surplus (Emter et al., 2026). This reduction in the current account surplus does not reflect stronger domestic investment (Graph 2.2.b). Instead, the EU trade balance reflects the difference between output and domestic demand. Output has been stagnating not only due to weak domestic demand but also faltering exports facing intense competition from Asia. Looking at the current account components of the euro area balance in 2025, it is mainly explained by a decline in the primary income balance, which shifted from a surplus of 0.3% to a deficit of 0.3%, and a narrowing in the trade surplus from 3.3% to 3.1% in 2025.

The EU's and euro area's external balance exceeds the level implied by economic fundamentals, although less markedly than in previous years. In 2025, underlying fundamentals, which reflect the EU's relatively high-income level, ageing population and manufacturing specialization, would imply a current account surplus of around 0.4% of GDP. Therefore, the actual surplus at 1.7% of GDP still exceeds the level implied by fundamentals by more than 1 percentage point of GDP. The largest contributors to the EU current account balance are Germany, Ireland, the Netherlands and Denmark (Graph 2.3.b). In case of Ireland, the contribution to the EU and euro area external balance is most likely related to the presence of multinational enterprises. In contrast, the Duch current account surplus seems to reflect, in parts, net savings of small and medium-sized enterprises (SMEs) as well as the presence of multinational enterprises (European Commission, 2025f).

Risks related to the EU and euro area surplus have somewhat reduced, but vulnerabilities persist in some Member States. The narrower current account surplus in 2025 points to a reduction in macro-financial risks at aggregate level compared to 2024. However, as Chapter 3 elaborates, the EU's growing net international investment positions and increasing exposure to the US financial assets (notably in some Member States, see chapter 3) may increase vulnerability to exchange rate movements and abrupt asset price adjustments in the short to medium term, with potentially sizable valuation effects on the accumulated NIIP. At the same time, some Member States continue to record current account deficits, leaving them more exposed to external financing risks, especially where deficits are persistent or financed through more volatile

capital flows. Overall, although surplus-related risks at aggregate level have eased, country-specific external vulnerabilities continue to warrant close monitoring.

Private-sector saving, driven mainly by households, continues to underpin the EU and euro area external surplus. During the pandemic, forced and precautionary saving led to a sharp increase in the household saving rate, reaching 18.3% of gross disposable income in 2020 ([46]). Although this rate declined in 2021–2022, it has risen again since 2023, as consumption growth continued to lag behind income growth. In 2025, it reached 14.5% of gross disposable income, remaining significantly higher than the pre-pandemic average of 11.7%. By contrast, non-financial corporations have made only a limited contribution to net lending in recent years, and their position weakened further in 2025 as investment strengthened, while governments remained net borrowers.

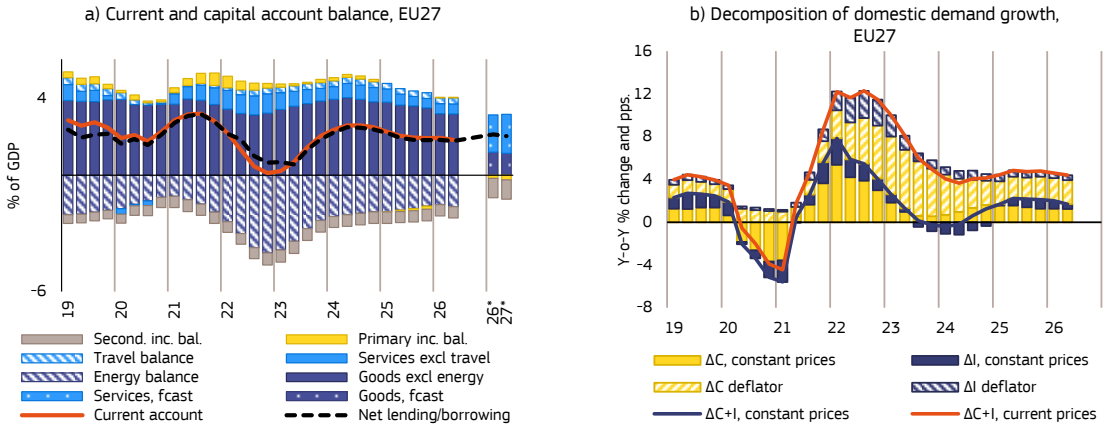
Investment increased slightly in 2025 from 2024 levels, accompanied by a timid return of corporate borrowing, but remains below pre-pandemic levels. In 2025, investment levels slightly increased to 22.2% of GDP in the EU and 22.1% in the euro area but remain still below 2019 levels. In particular, EU non-financial corporations' gross capital formation rose from 13.1% to 13.3% of GDP in 2025 and supported a gradual recovery in credit flows, although these remained below pre-pandemic levels. Against this backdrop, lower net lending by non-financial corporations in 2025 appears mainly due to stronger investment, alongside weaker corporate gross saving. According to the ECB, this points to a greater mobilisation of euro area savings towards domestic investment, with accelerating digital (in particular AI-related) investment in 2025 raising gross capital formation and reducing net lending (ECB, 2026a).

Despite the recent uptick, investment remains too weak relative to the EU's medium-term needs. The external surplus implies that part of domestic saving is still invested abroad rather than financing productive investment within the EU. Since 2015, an average net of more than EUR 300 billion is flowing into foreign assets each year, reaching ca. EUR 362 billion in 2025. According to the Draghi report on the future of European competitiveness, improving Europe's competitiveness and delivering the digital, social and sustainable transitions will require additional investment of around EUR 750–800 billion per year by 2030 (about 4.5% of EU GDP), on top of further needs to strengthen the EU's defence capabilities (European Commission, 2025e).

The euro area has become a net creditor to the rest of the world since 2021 because of external surpluses. The net international investment position (NIIP) increased by 30pps. of GDP, from around –20% of GDP in 2014 to a positive position, reaching around 10% of GDP by 2025. The NIIP reflects the cumulative past current account balances, as well as valuation changes arising from price and exchange rate movements, which have become more important since 2021, and, to a lesser extent, other volume changes. Net liabilities are mainly in non-FDI equity, investment fund shares and other investment, while net assets are concentrated in debt securities, foreign direct investment and reserve assets.

([46]) The gross saving rate of households (including Non-Profit Institutions Serving Households) is defined as gross saving (ESA 2010 code: B8G) divided by gross disposable income (B6G), with the latter being adjusted for the change in the net equity of households in pension funds reserves (D8net). Gross saving is the part of the gross disposable income which is not spent as final consumption expenditure.

Graph 2.2: **Current account and net lending in the EU**

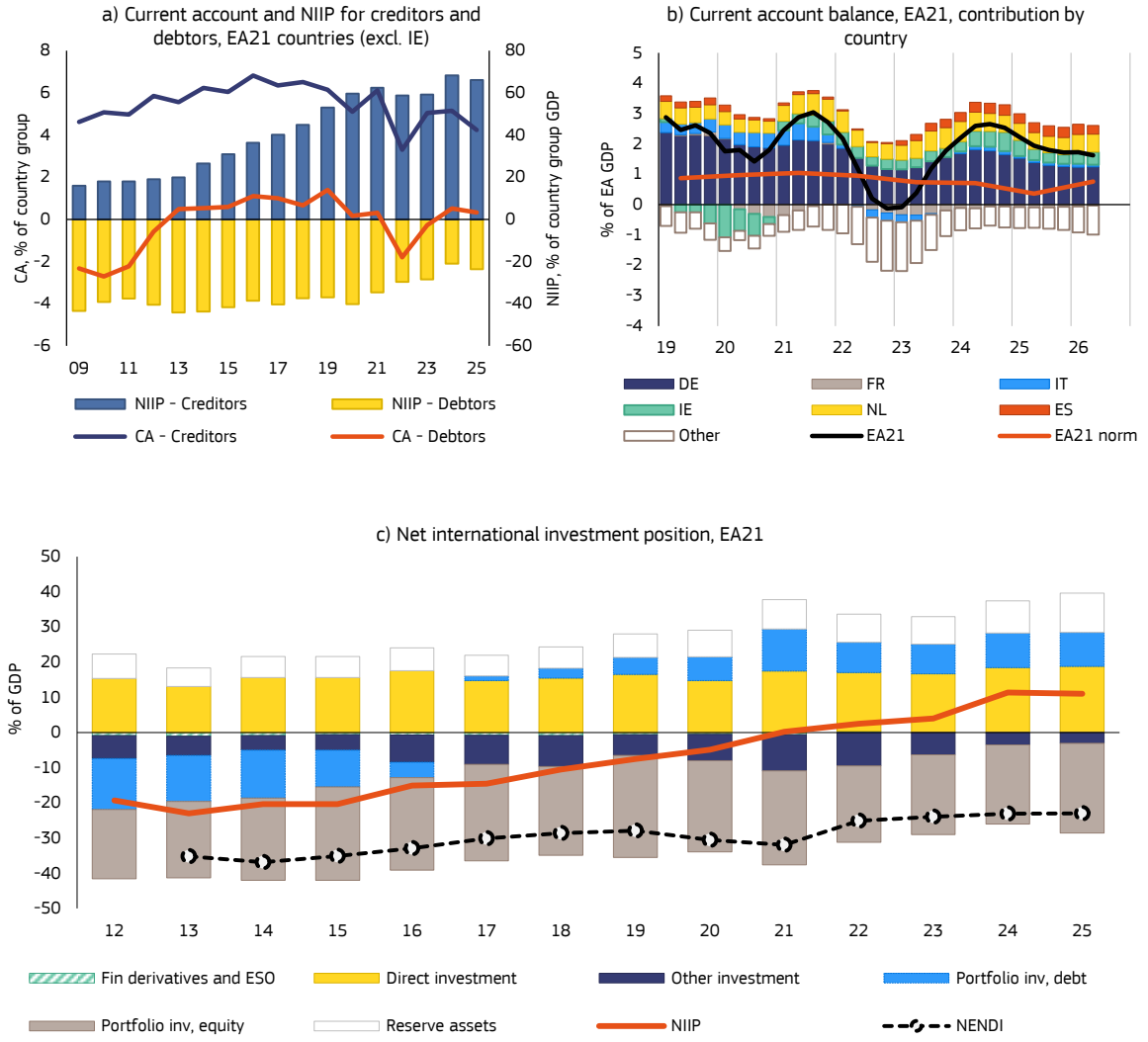


Source: Eurostat and European Commission forecasts and calculations.

External positions continue to differ widely across Member States, although some rebalancing has taken place. In 2025, the gap between creditor and debtor countries in terms of current accounts and NIIPs has further narrowed, with the current account gap between creditors and debtors amounting to about 3.2%, close to 3 percentage points below their level in 2019 (Graph 2.3.a). In the case of the NIIP-to-GDP ratios, valuation changes, and to a lesser extent investment income and nominal growth, have been the main driver behind the narrowing gap between creditor and debtor countries. However, the remaining gap in current account balances is set to drive the stock positions further apart, as nominal GDP growth is expected to slow from 2025 on.

Heterogeneity in external positions across the EU reflects the different situations of debtor and creditor countries. In 2025, some Member States, such as Romania with a current account deficit of around 8.4% of GDP and Cyprus, Bulgaria or Greece with deficits exceeding 5.5% of GDP, face elevated external financing needs, while others record large surpluses, reaching around 12.3% of GDP in Denmark and about or close to 8% in Ireland and the Netherlands. The latter two Member States, together with Germany, are also the largest contributors to the euro area current account balance (Graph 2.3.b). Countries with sizeable deficits can become vulnerable if market sentiment shifts and therefore should reduce their borrowing needs over time. Addressing these imbalances typically requires demand-restraining measures in high-deficit economies and, conversely, policies that support domestic demand, in particular investment, in surplus countries.

Graph 2.3: **Current account and NIIP**



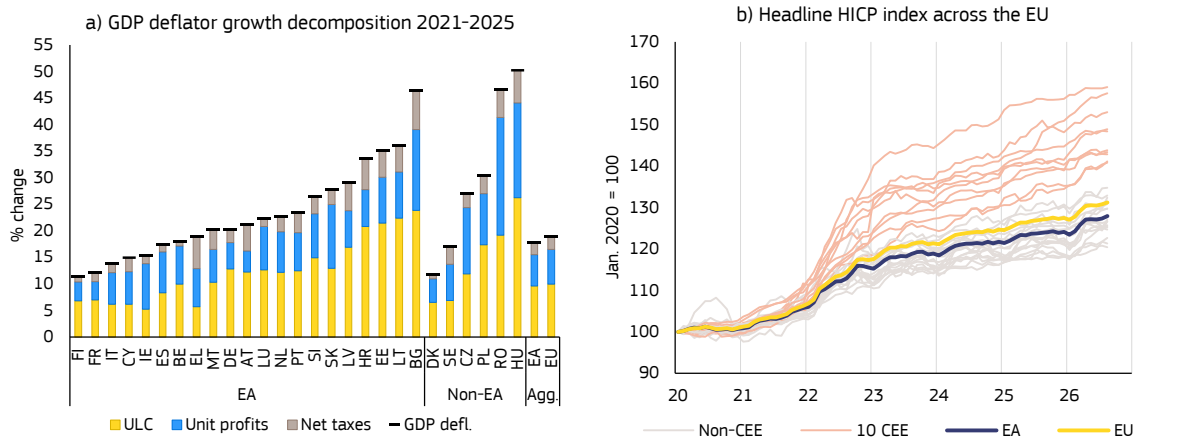
Source: Eurostat and European Commission forecasts and calculations.

Competitiveness challenges reignite with countries in central and eastern Europe more exposed

In 2025, inflationary pressures stemmed more from labour cost developments than firms' profits. Last year, price pressures as measured by the GDP deflator, continued to cool down in both the EA and the EU, advancing by 2.5% and 2.7% respectively, with the largest contributions coming from unit labour costs (ULCs), at 1.7 pps. for both EA and EU. Only in a handful of countries these labour cost contributions reflected the catch-up of real wages. Price increases were strongest in Bulgaria, Hungary, Romania, and Croatia. For almost all countries, the largest contributions came from ULC. Cumulated unit profits since 2021 seem rather limited in Austria, Germany, and Denmark (Graph 2.4.a). Excessive increases in ULC can weigh on companies' profit margins, which in the long run could have a negative impact on investment and consequently productivity. Contrary to the general trend, profits contributed the most to GDP deflator increase in Romania and Sweden in 2025. In Romania, net taxes also made a noticeably contribution.

Inflationary pressures have reappeared with the conflict in the Middle East, just as inflation rates were returning to the target following previous shocks. In 2025, HICP inflation averaged 2.1% in the euro area and 2.5% in the EU, although the dispersion among Member States remained high at 4 pps. for EA and 5 pps. for the EU. With the energy shock triggered by the conflict in Iran in February 2026, the disinflationary process was interrupted. The direct impact of higher energy prices started to show up almost immediately in the HICP. By September the energy component added 1.7 pps. to HICP inflation in both the EA and EU, pushing it to 3.8. While there is no strong evidence of indirect and second round effects, the full impact of the energy shock, which is still ongoing, may still be incomplete. As it persists, there is a risk that higher input and production costs are gradually passed on to consumers. Nevertheless, as indicated in Chapter 1, the current energy shock seems to be considerably less impactful than the one suffered in 2021-2022.

Graph 2.4: **Cumulated GDP (income) deflator and HICP inflation**



Source: DG ECFIN and Eurostat.

Despite a lower overall impact, some Member States appear more affected. The 2026 energy price shock seems to have a non-negligible impact on the 10 central and eastern European (CEE) ([47]) economies, affecting them disproportionately more compared to the other MS (Graph 2.5.a), owing also to their, energy mix, higher energy intensity and greater energy component weight in the consumption basket. Central and eastern European Member States ([48]) had already come out of the previous energy shock more affected than the rest, as their cumulated increases in price levels were considerably larger (Graph 2.4.b), posing a risk to their external balances and convergence process (Výškrabka & Bodea, 2026).

Past cumulated inflation amid tight labour markets led to strong nominal compensation increases in some cases. In 2025, the EU unemployment rate remained close to historical lows, at 6%. Nevertheless, it advanced quite strongly in a few Member States compared with the long-term pre-pandemic average: Finland (to 9.7%) and Sweden (to 8.8%) registered the highest unemployment rates in the EU in 2025, alongside Spain (10.5%), Greece (8.9%), and France (7.7%). A more comprehensive indicator of the labour market tightness, the labour market slack ([49]), registered 11.8% in the EU, some 1.3 pps. below the 5-year average, suggesting still tense labour

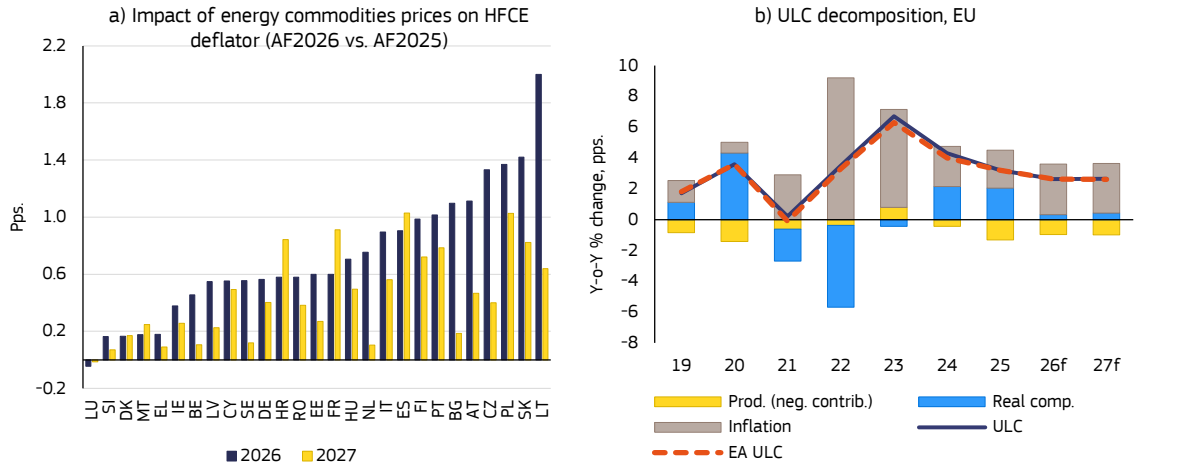
([47]) Impact assessment obtained from running the European Commission Autumn Forecast 2026 set of energy price assumptions on an input-output model. Expressed as difference to Autumn Forecast 2025 results for private consumption deflator annual growth.

([48]) The 10 referred CEE MS are: Bulgaria, Czechia, Estonia, Croatia, Hungary, Latvia, Lithuania, Poland, Romania, and Slovakia.

([49]) It includes unemployment as defined by the EU Labour Force Survey (EU-LFS) and the following 3 groups: i) underemployed part-time workers, ii) people seeking a job but not immediately available to work and iii) people available to work but not seeking. See Labour market slack - employment supply and demand mismatch - Statistics Explained - Eurostat

markets, with Malta, Poland, Bulgaria, and Slovenia, recording the lowest values. Amid still tight labour markets and high cumulated inflation in some Member States, the nominal compensation per hour worked increased visibly in 2025, jumping by about 10% in Croatia, by 9% in Lithuania and by more than 8% in Poland and Hungary. However, the level of nominal compensation of employees per hour worked in these economies remain well below the EU.

Graph 2.5: **HFCE deflator growth and ULC decomposition**



Source: Eurostat and European Commission. Note: HFCE = households final consumption expenditure.

Unit labour costs increases have been heterogenous across the EU. Unit labour costs increased by 3.2% in the EU in 2025 (Graph 2.5. b), as real wages added 2.1 pps., inflation 2.5 pps., while productivity subtracted 1.3 pps. Heterogeneity across the EU remains, with strong ULC growth in Hungary and Croatia, marginal drop in Sweden and mild increases in Denmark, France, Denmark, and Cyprus. For 2026 and for the EU as a whole, real wages are expected to stagnate, productivity gains to be around 1% and inflation to become the main driver in ULC growth, which is set to reach 2.6%, a more moderate increase than seen in the recent past.

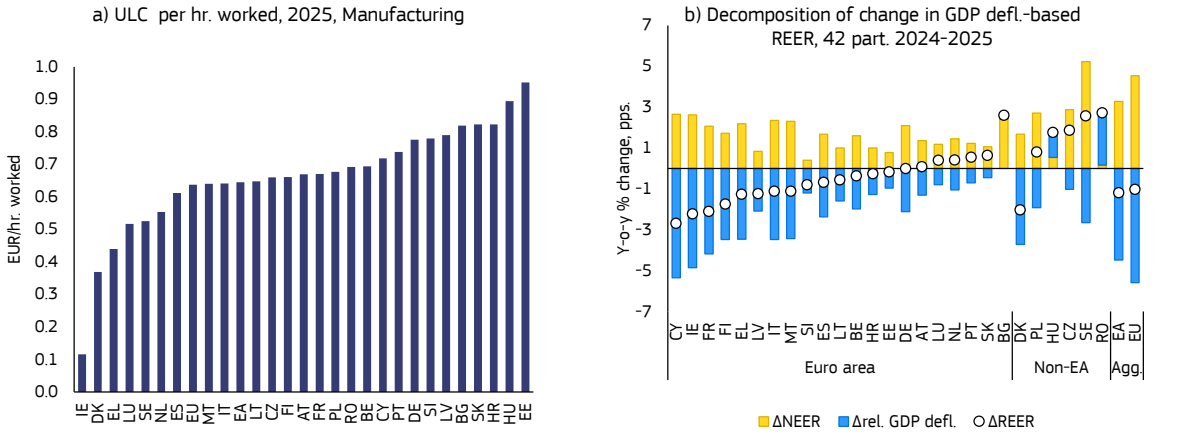
When adjusting for productivity levels, labour costs look relatively high in Central and Eastern European Economies. Despite the large increases seen lately in CEE, nominal compensation of employees in manufacturing in 2025 ([50]) was still very much below the EU value (29 EUR/hr), with less than 12 EUR/hr in Bulgaria, Romania, Poland, and Greece. These values reflect nevertheless the relatively low sectorial productivity in these economies. When accounting for the productivity levels (i.e. compensation of employees/hr to productivity/hr ratio), Estonia, Hungary, Croatia, and Bulgaria stand out as the MS with the highest ULC/hr in levels (Graph 2.6.a), implying a rather high labour cost in manufacturing, weighing down on the export prospects of this tradable sector in these specific economies.

Real effective exchange rate depreciated for the EU and the EA overall, despite strong nominal gains. The EUR rallied strongly against the USD after the imposition of tariffs and several other policy decisions in the US, adding considerably to the nominal effective exchange rate (NEER) appreciation of the EA in 2025. NEER strengthened across all EU economies except for Slovenia, and Romania, where they stayed flat. Nevertheless, negative inflation differentials in several MS weighed considerably on the real effective exchange rate (REER) appreciation, like in Cyprus, Finland, Sweden, and Greece (Graph 2.6.b). However, in Romania, and Hungary, inflation in excess of trading partners added considerably to the GDP deflator-REER appreciation. Overall, EA's and EU's REER depreciated by 1.1% and 1% respectively in 2025. By the second half of 2026, REER

([50]) To ensure horizontal consistency, the data reported in this paragraph refers strictly to the manufacturing sector (NACE code C).

dynamics have already started to turn. The Hungarian forint appreciated strongly adding some 13 pps. to the REER appreciation, other European currencies, except the leu, remained on a strong footing. Inflation differentials added upwards pressures in a few countries like Romania and Croatia. By the second half of 2026, EU's REER appreciated by almost 1pp.

Graph 2.6: **Unit labour cost in manufacturing and GDP deflator-based REER**



Source: Eurostat and European Commission.

EU's cost competitiveness challenges are multiple and overlapping. Higher energy prices than in other major exporting economies, tariffs, and euro appreciation add to competitiveness pressures on the exports side. The recent energy shock, despite being more evenly distributed globally and estimated to have a lower impact than the previous one, adds to already large, cumulated cost and price increases particularly in those Member States that were hit stronger by the previous inflationary shock. The surging Chinese exports coupled with a weak Chinese domestic demand represent a particularly relevant shock, with possibly long-term consequences that could lead to domestic output substitution and exacerbate strategic dependencies and external vulnerabilities.

Housing pressures have intensified amid persistent supply constraints and worsening affordability, while macro-financial risks remain contained

House price growth strengthened across much of the EU in 2025, while financing conditions began to tighten again in 2026. In the EU as a whole, prices increased by 5.5% in 2025 and by 4.7% in 2026-Q2 (Graph 2.7.a). The strongest price increases were observed in parts of southern, central and eastern Europe, notably in Bulgaria, Croatia, Hungary and Portugal, while some larger markets and countries that experienced earlier corrections continued to record more moderate developments, with Finland still recording an outright price decline (Graph 2.7.c). Rising prices were accompanied by a rebound in housing transactions in 2024 that continued in 2025. Mortgage lending recovered gradually during 2025, but remained moderate, with the annual growth rate of euro area loans for house purchase rising from 1.2% in January 2025 to 3.0% in August 2026, though in some Member States such as Bulgaria, Croatia, Estonia, Hungary, Lithuania, Malta and Portugal mortgage credit growth exceeded 10%. Mortgage interest rates remained broadly stable during 2025 but increased slightly in 2026 as monetary policy continues to respond to renewed inflation pressures. In 2026-Q2, euro-area banks reported tighter housing-loan standards, and slight tightening ahead is still expected.

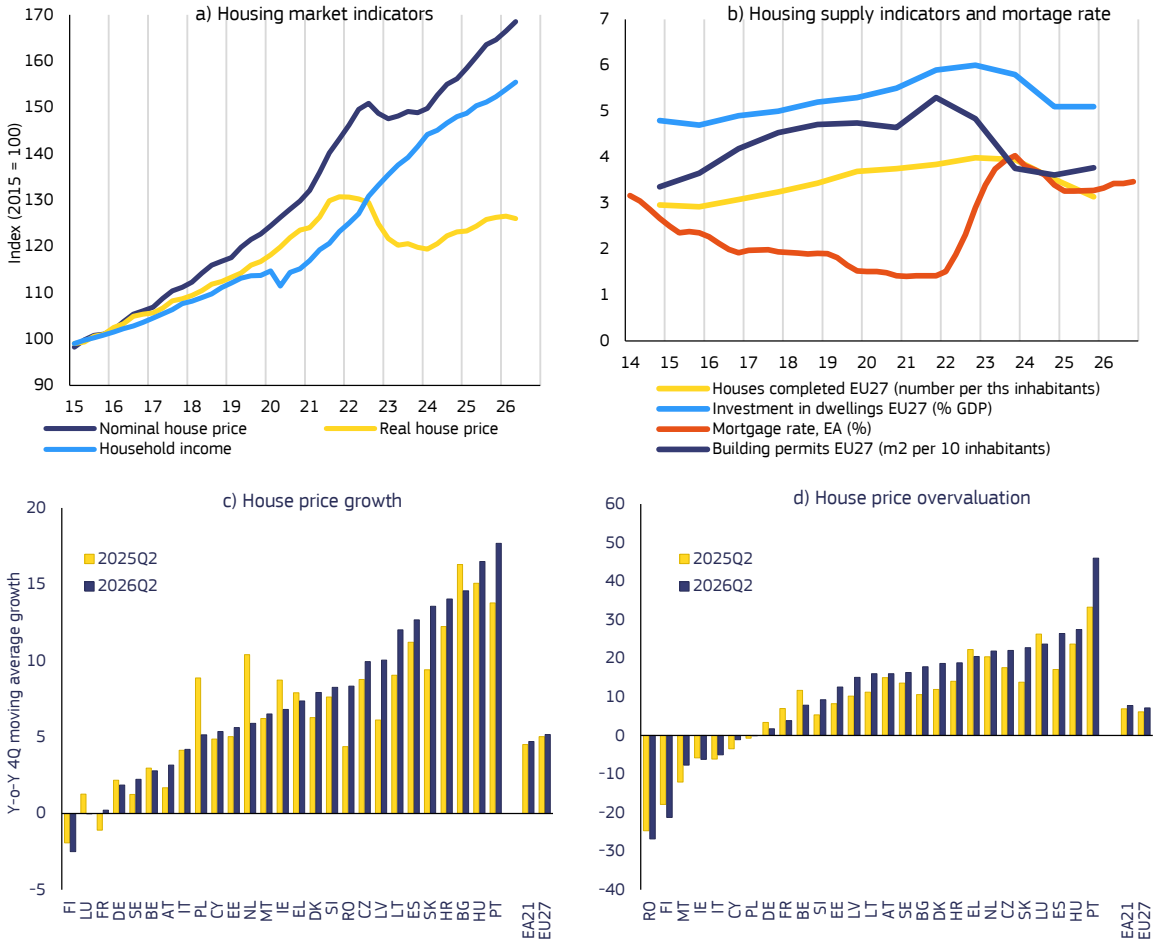
Investment in dwellings kept declining in 2025, and weak residential construction remains a major factor behind persistent house price pressures in the EU. The strength of recent house price growth, despite only a limited recovery in household borrowing capacity, suggests that persistently weak supply continues to play an important role in housing market developments. Investment in dwelling (as % of GDP) increased until 2022, reaching 6%, although part of this investment reflected the increasing importance of renovation activity rather than new construction. Since 2023, investment in dwellings has declined, falling to 5% of GDP in 2025, with prolonged declines recorded notably in Germany. Building permits, which have also been falling in the last years, showed signs of a modest recovery in 2026 (Graph 2.7.b). The supply response continues to be constrained by a combination of labour shortages, skills mismatches, constrained access to finance, planning and permitting bottlenecks, regulatory constraints and, in some markets, limited land availability, although construction costs pressures have stabilised in recent years. Against this backdrop, the supply response has remained weak relative to housing demand and is expected to stay subdued in the foreseeable future, sustaining upward pressure on house prices.

Housing affordability remains a major macroeconomic and social issue in many Member States, amid renewed signs of house price overvaluation. Valuation indicators suggest that the correction following the monetary tightening cycle that started in 2022 was relatively shallow and that house prices are again above fundamentals in several countries. The Commission's overall valuation gap estimate, which combines model-based estimates with deviations of price-to-income and price-to-rent ratios from their historical averages, points to renewed overvaluation in several Member States, with strongest indication of overvaluation in Portugal (Graph 2.7.d). Price-to-income ratios, which had improved during the 2023-2024 housing market adjustment, rose again in most Member States in 2025, and remain more than 10% above their 2015 levels (at the EU level). Moreover, these aggregate indicators conceal substantial variation across regions and cities. For prospective homebuyers, the combination of high house prices, mortgage rates that remain well above recent historic lows, and relatively restrictive borrowing conditions continues to pose a significant barrier to homeownership. Renewed inflationary pressures and weaker real income growth in 2026 could further exacerbate affordability constraints. According to Eurobarometer, lack of affordable housing appears as a significant problem for about 40% of EU citizens.

In many Member States, rental markets remain relatively small, while policy and tax settings that discourages long-term rental housing, together with persistent constraints on new supply, hamper their expansion, reducing their capacity to provide a viable alternative to homeownership. While official rent indicators have generally increased more slowly than house prices, available evidence suggests that rents for newly signed leases have risen considerably faster and, in many markets, at rates comparable to house prices ([51]). High rent levels compared to income can be found mainly in capital cities of central and eastern Europe, but also in many coastal areas where tourism and second-home ownership have pushed up rental levels (ESPON, 2025). Despite rising rents, rental yields remain relatively low in many EU capital cities, limiting incentives for new investment and expansion of the rental housing stock. These incentives may be further affected by the design of rental-market regulation and by legal or regulatory uncertainty. Against a backdrop of weak residential construction and only a modest recovery in building permits in 2026, these factors, together with land scarcity, planning constraints and slow housing delivery, suggest that shortages of rental housing in many urban markets are likely to persist.

([51]) Harmonised rent indicators understate the burden faced by new tenants, as they include mainly existing contracts and adjust only gradually to changes in rents on newly signed leases.

Graph 2.7: **House prices and housing supply**



Source: Eurostat, ECB, and European Commission calculations.

By mid-2026, the build-up of a credit-driven house price boom appears limited in the EU, although renewed price pressures warrant close monitoring. Housing booms fuelled by rapid mortgage credit expansion have historically been among the most damaging sources of macro-financial instability, as their unwinding can entail sharp corrections in household wealth, losses in the financial sector and prolonged downturns in economic activity (Jordà et al., 2015 and 2016). The current episode of persistent house price increases that continue in 2026, however, differs from past boom phases in important respects. Prices are rising in an environment of relatively elevated mortgage rates and tight borrowing conditions and appear to be driven primarily by persistent supply constraints rather than by strong mortgage credit growth. This limits the risk of an abrupt, credit-driven price correction. Moreover, compared with the period prior to the Global financial crisis, EU banks hold stronger capital buffers and aggregate non-performing loan ratios remain low, increasing the resilience of the financial sector should housing-related risks materialise.

Beyond macro-financial risks, rising housing costs can hinder labour mobility and the efficient allocation of labour, with adverse consequences for productivity and growth. Housing affordability pressures are particularly acute in urban areas, where economic activity and employment opportunities are concentrated, but where land scarcity, tight rental markets and supply constraints are often most severe. High housing costs can therefore limit access to economic opportunities by discouraging workers and students from relocating to dynamic regions

([52]). More broadly, deteriorating housing affordability can reduce labour mobility, , constrain access to employment and higher education opportunities, and increase the risk of housing exclusion, particularly among younger households, lower-income groups and other vulnerable groups. Housing affordability is therefore not only a social concern but also a macroeconomic challenge with implications for productivity, inclusion and long-term growth.

Private sector deleveraging continues albeit at a slower pace

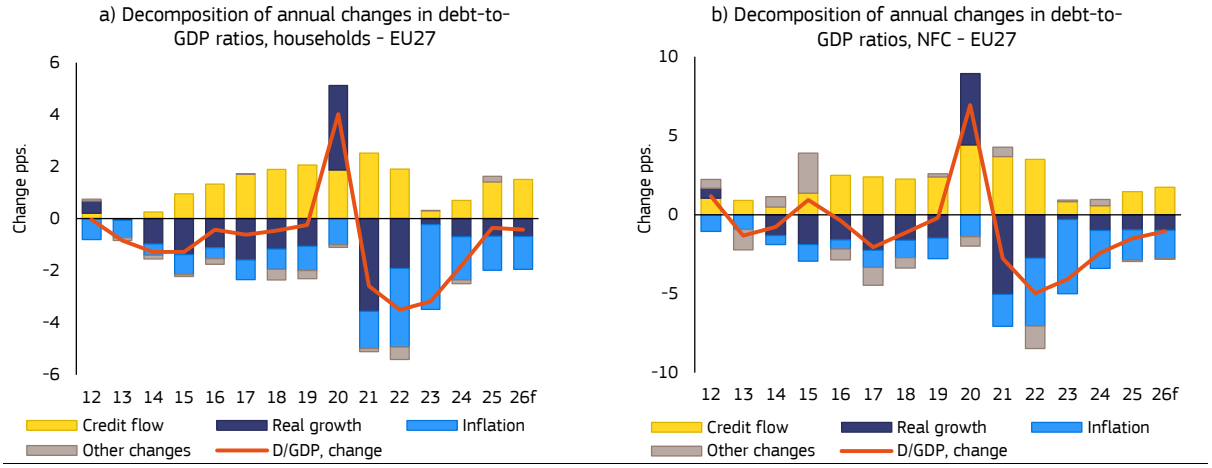
A significant reduction in private debt ratios has taken place over the last 5 years against the backdrop of relatively high nominal GDP growth, although deleveraging has slowed recently. The EU average household debt-to-GDP ratio has decreased from 58% in 2021 to 49% in 2025, while the NFC debt-to-GDP ratio has dropped from 83% in 2021 to 70% in 2025. These significant reductions took place against the backdrop of the inflationary shock, which provided strong denominator effects, while credit flows were muted amid tighter financing conditions, especially after 2023. However, credit flows to the private sector have increased since 2024 amid significant declines in the cost of borrowing and some recovery in economic activity in real terms. Therefore, more dynamic credit flows, coupled with lower nominal growth due to easing inflation have brought about a slower private sector deleveraging in 2025. In 2026, with credit flows being only slightly higher amid rising borrowing costs, further private sector deleveraging will crucially depend on nominal GDP growth in a context of rising inflation.

Household finances remain relatively sound. Real income has recorded strong growth recently, and employment continues to stand at historically high levels. Moreover, household saving rates remain above pre-pandemic levels. Nevertheless, negative or very low saving rates in some Member States, including Greece, Romania, and potentially Bulgaria, remain at levels that warrant monitoring. In turn, household non-performing loan (NPLs) ratios keep improving.

At the euro area and EU aggregate level, household deleveraging has continued, albeit at a slower pace. In 2025, credit flows have recently gathered momentum for the euro area and the EU aggregates, whereas nominal GDP has decelerated while remaining the key contributor to the deleveraging (Graph 2.8.a). However, some cross-country heterogeneity can be observed, with debt ratios starting to trend up in some Member States with low household indebtedness. At the same time, high credit growth is mainly observed in low or very low-debt countries, although its dynamics warrant monitoring in some cases, especially in the Netherlands, Malta, Portugal and Slovakia, where the household debt ratio is higher. By contrast, net credit growth remains relatively contained in countries with high household debt ratios. In 2026, household debt in the euro area and the EU is set to keep declining gradually, as nominal GDP growth in a context of rising inflation is expected to outpace broadly stable credit flows.

([52]) For example, in Austria, regional differences in rents and the availability of subsidised housing create lock-in effects that impede the movement of jobseekers towards vacancies in some regions, while in Greece, seasonal and critical workers struggle to secure affordable accommodation at their place of assignment (European Commission, 2026a and 2026b).

Graph 2.8: **Decomposition of changes in private debt**



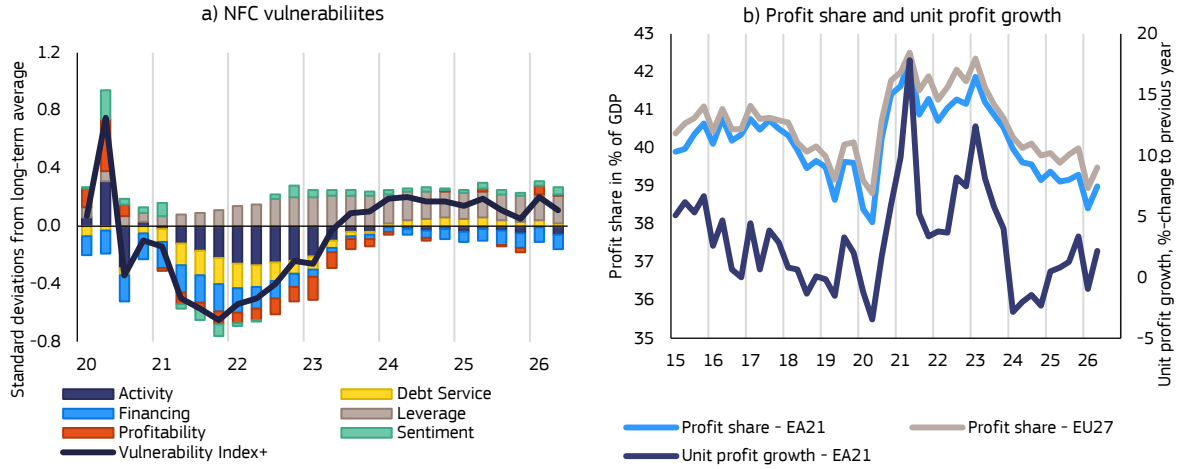
Source: Eurostat and European Commission calculations.

Corporate indebtedness kept declining in 2025 amid more dynamic credit flows and somewhat lower nominal GDP growth. Corporate debt ratios have declined steadily since 2020, driven by both high nominal GDP growth in 2021 and 2022 and muted credit flows in 2023 (Graph 2.8.b). Thus, the EU non-financial corporations (NFC) debt-to-GDP ratio has dropped from 86% in 2020 to 74% in 2023. However, the pace of corporate deleveraging has lost momentum in 2024 and 2025 in that credit growth, in line with economic activity in real terms, started to recover, increasing from 1.5% in 2024 to almost 3% in 2025, whereas nominal growth slowed down due to the fall in inflation (Graph 2.8.b). In 2026, with slightly higher growth of credit flows and in a context of higher nominal GDP growth, the corporate debt-to-GDP ratio is expected to decline further.

Overall, corporate financial vulnerabilities fell in 2025 with respect to 2024 (Graph 2.9.a), mainly due to sentiment indicator remaining muted against a backdrop of elevated uncertainty, overall stable profitability indicators, a rebound in economic activity, decline in borrowing costs and continued deleveraging. After a sharp improvement in 2022, profitability indicators deteriorated sharply in the second half of 2023 and in 2024. However, over 2025, unit profit growth started to strengthen and profit margins as well as profit shares started to increase (Graph 2.9.b). In turn, after a sharp rise in 2022 and 2023, financing costs have shown a pronounced decline over the last two years. Against this backdrop, firms' interest coverage ratios increased in 2025.

More recent data point to a loss in momentum among NFCs. Borrowing costs edged up in the final quarter of 2025, credit conditions tightened, and industrial production growth slowed at the start of 2026. The gap between business bankruptcies and new firm registrations has widened, pointing to an uneven adjustment across firms and sectors. In turn, financial vulnerabilities have risen in the first half of 2026, mainly due to a decrease in profitability and the deterioration of the economic sentiment stemming from increased uncertainty.

Graph 2.9: **Non-financial corporations finances: evolution of profits and vulnerabilities**



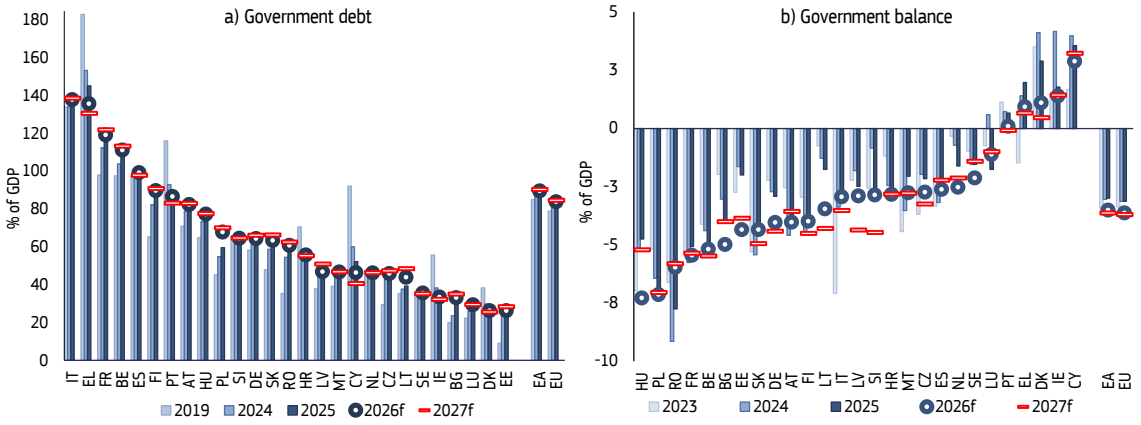
Source: Eurostat, ECB, and European Commission calculations.

Government debt is on the rise in several countries against mounting spending pressures and higher borrowing costs

Government debt is increasing in most Member States, and debt dynamics are becoming more challenging, thereby raising concerns about resilience to cushion future shocks. Falls in government debt ratios have become less frequent and more limited in size. Government debt remains elevated and above its pre-pandemic level in several EU countries, as well as for the euro area and the EU aggregates (Graph 2.10.a). In 2025, government balances worsened somewhat in most EU countries, although many of the largest deficits narrowed. The outlook points to even more widespread and larger deteriorations in fiscal balances at least this year (Graph2.10b). In addition, denominator effects have also become less supportive of deleveraging, as nominal GDP growth moderated. In parallel, in some countries, debt-increasing stock-flow adjustments contribute to higher debt ratios. Looking ahead, the negative differentials between interest rates and nominal GDP growth are expected to narrow further and may even turn positive in some cases, thereby compounding the challenges for debt dynamics (Graph 2.11.a). Overall, the government sector will have less room to cushion possible shocks affecting the wider economy.

Financing government debt has become more expensive. Interest rates on government debt have increased in the euro area and the EU and in all other major economies in 2026. Spreads between euro area long-term government bond yields widened after February, especially since spring, in particular for some of the most indebted cases, after having narrowed since 2022 (Graph 2.11.b). In non-euro area EU countries, recent sovereign yield dynamics have been more heterogeneous and, in some cases, risks are compounded by external vulnerabilities, especially for Romania. The budgetary impact of higher interest rates is expected to strengthen progressively as debt is rolled over at less favourable financing conditions, although no clear impact on the average maturity has been observed yet. In addition, beyond direct risks for public finances, financing conditions for governments matter for the private sector too as changes to borrowing costs for governments can transmit to firms and households.

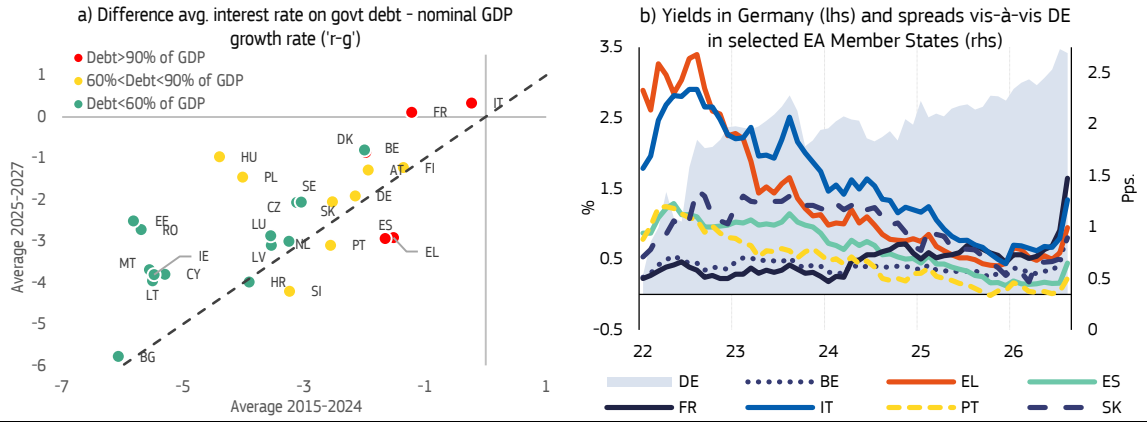
Graph 2.10: **Government debt and balance across the EU**



Source: European Commission.

In addition to higher interest rates, various factors point to a demanding expenditure outlook. Member States are expected to face sustained pressures to increase defence spending in response to the deterioration in the geopolitical environment. In addition, the twin digital and green transitions are likely to require sizeable additional investment, including from the public sector. Demographic developments are also set to intensify expenditure pressures, notably through higher age-related spending on pensions, healthcare, and long-term care. Additionally, some governments adopted fiscal measures to cushion the increase in energy prices, although the scale and design of those measures differ substantially across countries (see Chapter 1). Against this background, medium-term fiscal strategies will need to reconcile rising expenditure needs with the fiscal adjustment required to preserve debt sustainability.

Graph 2.11: **'r-g' conditions across the EU and yields on government debt in some EA members**



Source: European Commission.

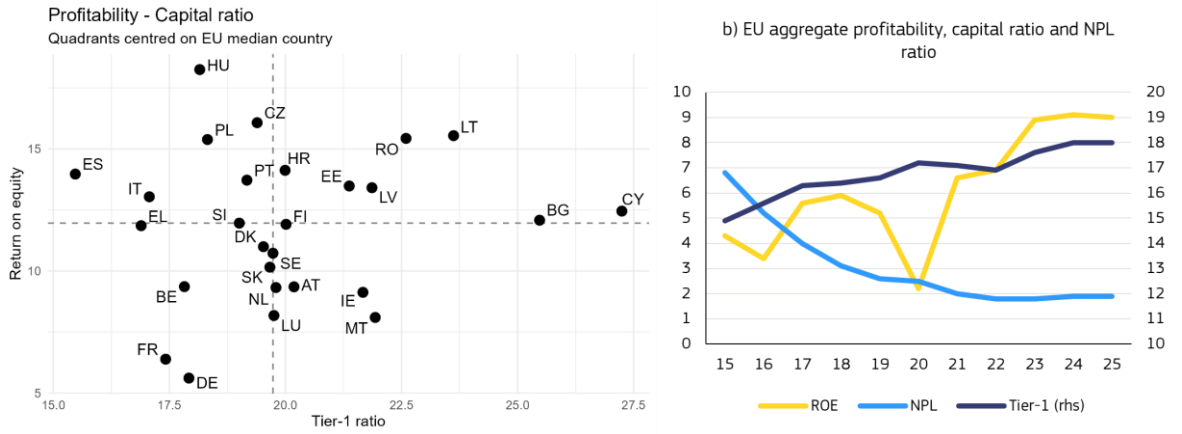
The EU financial sector has remained resilient, but risks have increased amid a weaker economic outlook, tighter liquidity conditions, growing interconnectedness and risks originating outside of the financial system.

Since the beginning of 2026, financial stability risks have somewhat increased amid a weakening economic environment. The conflict in the Middle East has triggered a strong increase in oil prices, high volatility in equity prices, and a reassessment of inflation and interest rates

expectations. Against this background, financial stability risks have increased, with equity valuation returning to high levels despite a more muted economic outlook, tighter financing conditions, and still high market concentration related to the performance of the US large technology firms. The EU financial sector has remained resilient in the face of this new shock, but risks warrant close monitoring.

The EU banking sector has remained sound, supported by steady profitability, robust capitalisation and ample liquidity. The aggregate return on equity of EU credit institutions remained stable at 9.3% in 2025, as lower net interest income was offset by higher fees and commissions (Graph 2.12). The common equity Tier 1 ratio of EU credit institutions remained high, increasing slightly to 16.4% at the end of 2025. Significant institutions also reported a lower share of stage 2 loans and stable liquidity ratios in 2025, although they recorded a slight decline in the common equity Tier 1 ratio and in liquidity ratios in the first quarter of 2026. Overall, banks' asset quality remained stable. The aggregate NPL ratio of EU credit institutions stayed at a low level, at 1.97%, despite limited increases in some Member States compared with the end of 2024. At the same time, rising default rates among SMEs in certain Member States point to a possible deterioration in asset quality going forward.

Graph 2.12: **Banking sector: profitability, capital ratios and asset quality**



Source: ECB.

Non-bank financial intermediaries' sector (NBFI) ([53]) **has also been resilient but faces increasing risks.** The insurance and occupational pension sectors have maintained robust capitalisation and liquidity positions despite heightened market volatility, while benefitting from strong investment returns in the context of favourable market performance. At the same time, insurers and pension funds remain vulnerable to trade disruptions, geopolitical shocks, market corrections and interest rate risk. While fixed-income assets continue to be the dominant asset class for insurers and pension funds, higher exposures to equity and alternative investment can support portfolio diversification and provide long-term financing to the economy, but increasing exposure to less liquid assets also constitutes a source of vulnerability if not adequately managed (EIOPA, 2026). Furthermore, liquidity mismatch in open-ended funds, which allow investors to redeem their shares at short notice, and liquidity risks arising from the use of derivatives, notably margin calls, are a vulnerability for NBFIs. High leverage of some investment funds can further amplify market stress because even modest losses may force them to sell assets quickly (ESRB, 2025).

([53]) Non-bank financial intermediaries (NBFIs) comprise different types of financial institutions, including insurance corporations and pension funds, central counterparties (CCPs), investment funds, money-market funds, and financial vehicles. They are heterogeneous in terms of business models, risk profiles, regulation and supervision.

The interconnectedness between financial institutions can amplify and transmit shocks across the financial system. The links among NBFIs and between NBFI and the banking sector continue to be a potential channel through which adverse developments could be transmitted to the real economy. The recent episode of stress in the US private credit market has highlighted vulnerabilities related to liquidity mismatch, asset concentration and leverage. The euro area financial sector has limited direct exposures to private credit but a stress in this market segment could still affect it indirectly by prompting investors to reassess risks more broadly, leading to lower asset prices and tighter financing conditions. Exposures are concentrated in a small number of institutions, particularly insurers and pension funds. In a severe shock, they could face material indirect losses through broader revaluations of leveraged loans, high-yield bonds and equities. Such spillovers could tighten market-based financing conditions for affected borrowers and, if sufficiently large, weaken credit provision to the real economy (ECB, 2026b).

The commercial real estate (CRE) sector stabilised in 2025 as financing conditions improved, but vulnerabilities remain. Non-performing exposures linked to CRE are still elevated, and inflows of NPLs continue in some Member States. Transaction volumes rebounded from the lows seen in 2023–2024, supported by lower interest rates, stabilising asset valuations and stronger investor sentiment. However, market activity remains below pre-2022 levels. The recovery has been uneven across market segments. Residential rental assets in portfolios of commercial real estate companies have continued to perform comparatively well, underpinned by persistent housing shortages and robust demand in many urban areas. By contrast, lower-quality office segment remains under pressure, reflecting structural changes in workspace demand. Although EU banks' aggregate exposure to CRE is smaller than their exposure to residential mortgages, it is still significant in certain Member States and, in some cases, large relative to banks' capital. CRE exposures therefore remain sensitive to refinancing risks, valuation uncertainty, weak market liquidity and a worsening economic outlook.

The financial sector is increasingly exposed to risks originating outside the financial system. Climate-related risks are becoming more financially material, as physical hazards and the transition to a low-carbon economy can affect asset valuations, underwriting losses and credit quality, including through exposures concentrated in carbon-intensive sectors or climate-vulnerable regions. Cyber threats remain a major concern as the financial system becomes more digitalised and interconnected, increasing vulnerability to operational disruption, data breaches and contagion across critical infrastructures. Furthermore, demographic ageing can create structural-financial vulnerabilities by slowing potential economic growth and changing saving and investment patterns. It also increases the long-term liabilities of pension funds and life insurers, which may make their balance sheets more sensitive to low returns and asset-price shocks. Ageing may also intensify sovereign-financial linkages as rising age-related public spending, including on pensions, health and long-term care, can worsen fiscal pressures and debt sustainability concerns, with potential spillovers to banks, insurers and other investors exposed to sovereign debt.

3. GLOBAL FINANCIAL FLOWS, EXPOSURES, AND IMBALANCES

Introduction

European savings exceed domestic investment, and this surplus is therefore invested abroad. This matters not only for the euro area and EU's external position, but also for its domestic economic performance. Large outward financial investment reflects, in part, the limited capacity of European capital markets to channel savings into productive investment within the EU. Understanding where these savings go, in which instruments they are invested, and how the associated risks are distributed across Member States is therefore central to assessing the resilience of the EU economy and the case for deeper financial integration.

The EU and the euro area remain large net exporters of capital, with their external portfolios increasingly concentrated in US assets, especially equities. Over the past decade of positive current account balances, the allocation of cross-border savings has been attributed more markedly also towards the US, particularly through equity holdings. This shift has supported valuation gains for European investors during periods of strong US market performance, but it has also increased exposure to risks of asset-price and exchange-rate adjustments. At the same time, the persistent attractiveness of the US economy assets reflects not only cyclical return differentials, but also structural features of the US financial system, including market depth, liquidity, scale, innovation capacity and the supply of high-yielding financial assets.

These trends matter for the EU economy as they reflect fragmentation of EU capital markets but also heterogeneity among EU Member States. First, sustained outflows into non-EU assets point to persistent challenges in the EU's own financial architecture, limited supply of liquidity stemming from deep equity markets and insufficient allocation of savings across European borders. Second, the benefits and vulnerabilities associated with foreign asset income and valuation effects are unevenly distributed across Member States, with large exposures concentrated in a small number of financial centres as well as large EU economies.

These patterns are in particular shaped by the increasingly complex role of financial intermediation activities in EU financial centres, such as Ireland, Luxembourg, and the Netherlands (ECB, 2024). However, available data do not permit a precise identification of the ultimate owners of assets held in these Member States, and their importance should be interpreted with caution. In many cases, these activities include holding companies and special purpose entities linked to multinational enterprises, which channel substantial amounts of capital through financial hubs rather than into domestic productive investment. As a result, these EU financial centres account for a very large share of recorded euro area holdings of US assets (close to 80%), although this does not necessarily reflect the location of the ultimate investors.

This chapter examines the evolving structure of EU and euro area external portfolios, with particular attention to US exposures, and assesses their implications for risk, resilience and policy. Section 2 builds on the findings presented in last year's EMR and documents the development in the external asset allocation of the EU and euro area, focusing on composition, destination and valuation effects. Section 3 zooms in Member States' heterogeneity

and the concentration of exposures. Section 4 reviews the changing preference of European investors for US assets, being more granular on the shift from debt to equity. Section 5 analyses the main drivers of this reallocation. Section 6 discusses the associated risks, including those related to exchange-rate, policy and market-correction. Section 7 concludes with a policy discussion centred around the need for a decisive deepening of the Single Market.

EU and euro area external asset allocation in the context of global imbalances

Following two years of consecutive widening, global current account balances remain marked in 2025, mainly driven by China's largest surplus increase in over 20 years, while US and the euro area current account balances narrowed in 2025 (IMF, Research Dept., 2026). As a result, the US remain the economy with the largest external deficit, and China becomes the world's largest surplus economy, with the euro area ranking second (Graph 3.1.a). The US, running persistent current account deficits, experienced a significant widening from -2.1% of GDP in 2019 to -3.6% in 2025, and has become increasingly reliant on net foreign borrowing, mainly via debt securities, to finance its investment needs ([54]). By contrast, China's current account surplus remains underpinned by persistently elevated private saving and, more recently, by a weakening in investment (Alcidi & Freo, 2026). The euro area's current account surplus continues to reflect subdued investment. Investment fell in 2024, as heightened geopolitical tensions and policy uncertainty weighed on consumer and business confidence, before recovering somewhat in 2025, contributing to a narrowing of the current account surplus in the euro area (see chapter 2). As a result, the euro area remains a global capital exporter, although its external portfolio allocation remains unevenly distributed: asset holdings are increasingly concentrated in the US, while financial exposures vis-à-vis China remain limited despite deep trade interdependence.

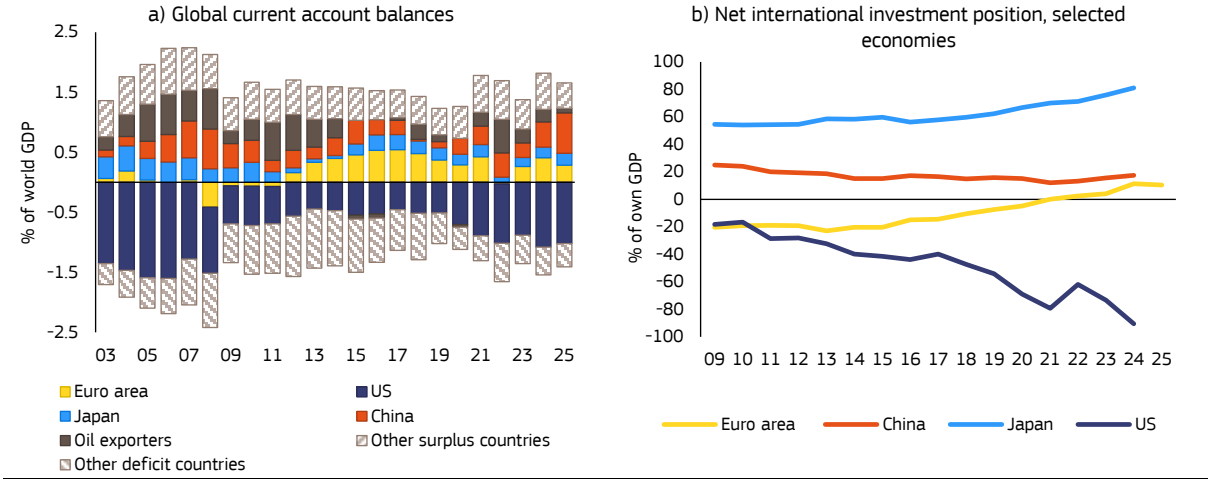
Higher private savings in EU and euro area than in the US drive a savings gap reflected in the external balances. In the EU and euro area, savings exceed domestic investment, resulting in current account surplus close to 1.7% and 1.9% of GDP, respectively, in 2025. Private sector savings, particularly those of households, have increased markedly since the pandemic. As a result, the EU's and euro area's net lending position in 2025 is well above its pre-pandemic average, despite higher, though slightly moderating, government borrowing (European Commission, 2025a). By contrast, the US' external deficit is mainly driven by sustained public borrowing, while private savings remain relatively low.

From a stock perspective, these current account balances have translated into an increasing gap between net international investment positions. Since 2021, the euro area is a net creditor to the rest of the world, shown in the built up of a positive net international investment position (NIIP), reflecting the cumulative effect of sustained current account surpluses and valuation changes (price and exchange rate effects). At the same time, the US has seen its already negative NIIP deepen further. In addition to the accumulated current account deficits, the rise in US stock prices also contributed to pushing the US NIIP further into negative territory, reaching around 70% of GDP by the end of 2025. China and Japan have remained a large net creditors throughout, generating sizable external asset positions. Together, these patterns underscore that global imbalances are now as much about distribution of previously accumulated

([54]) Such a steady rise in US net external liabilities, together with higher interest rates, has erased the surplus in the US investment income balance, which turned negative in 2024. In the past, the U.S. earned more investment income from Europe than vice versa, even though European residents hold more U.S. assets. One reason is due to the US multinationals shifting profits to low-tax jurisdictions such as Ireland and the Netherlands through trade invoicing practices and the relocation of intellectual property https://www.brookings.edu/articles/the-return-of-global-imbalances-the-us-case/

external assets and liabilities, as about current account flows, with the euro area exhibiting an increasingly high positive position already surpassing 10% of the euro area GDP, but remaining lower than that of China (20% of China GDP) and well behind Japan at around 80% of GDP (Graph 3.1.b).

Graph 3.1: **Global current account balances and selected net international investment positions**



Notes: (b) Data for 2025 were not available for US, China and Japan at the cut-off date of this report.
Source: IMF and European Commission forecasts and calculations.

The euro area's external balance sheet has increased substantially over the past decade, in both gross size and in complexity. Gross foreign assets and liabilities have reached close 270% of and close to 260 % of GDP in 2026Q2 respectively, also reflecting the current account surplus, portfolio diversification and the growing role of investment funds and other non-bank intermediaries. Within this broader expansion, the share of US financial assets in euro area's foreign asset holdings has increased. Compared to pre-pandemic levels, the allocation of external assets held by the euro area has mainly shown a stronger increase of its exposure vis-à-vis the US from 25% to 30% of the total, while decreasing its direct exposure to the UK from 20% to 16% of the total in 2025 (Graph 3.2.a). The regional distribution of the external liabilities remained relatively stable, with largest exposures also being the US (ca. 21% of the total external liabilities) and UK (15%). Within the euro area exposure, the relative shares of Luxembourg and Ireland financial claims vis-à-vis the US have also shifted, with Ireland gaining more relevance in the direct exposure (Graph 3.2.b) ([55]).

Despite strong trade ties, the euro area's financial exposure to China remains limited, especially when compared with the US. While China is a critical trading partner for the euro area and the EU, bilateral financial exposure remains limited and asymmetric. Chinese investors hold more financial assets in the euro area, primarily portfolio investments, than euro area investors hold in China (Graph 3.2.a). China's investments in the euro area consists mainly of Chinese holdings of foreign exchange reserve assets in the form of euro area debt securities (Chari et al., 2025), whereas the euro area's largest exposure to China continues to be in form of FDI. In stock terms, China's net portfolio holdings in the euro area declined from around 6% of euro area GDP in 2015 to less than 4% in 2025 Q3, while the euro area's net FDI position vis-à-vis China remained broadly stable at around 1% of GDP (Graph 3.2.c). By contrast, FDI positions vis-à-vis the US have remained broadly balanced, and turned positive in 2023, with euro area FDI investments in the US exceeding US FDI in the euro area. By mid-2026, this net FDI positive position had reached

([55]) The conventional balance of payments/ international investment position data shows the residency (not nationality) of economic actors and do not allow a precise assessment of European investors' ultimate exposure.

around 3% of GDP (Graph 3.2.d). This relatively limited financial interdependence contrasts sharply with the euro area's much deeper exposure to US financial markets, where equity-heavy portfolio allocations have increased sensitivity to valuation changes and exchange rate movements.

This asymmetry in bilateral financial exposures explains why the US warrants particular attention in the analysis of the euro area's external asset allocation. The US is not only the euro area's single largest external financial counterpart, but also the market where euro area investors are currently most exposed to valuation risk, given the large and rising share of portfolio equity in bilateral holdings. This matters because the recent increase in US exposure has been closely linked to the exceptional performance and high concentration of the US technology sector, which has lifted equity valuations but also increased sensitivity to potential market corrections. Focusing on the US therefore helps assess how a large bilateral exposure, combined with elevated equity prices and sectoral concentration, can amplify the impact of asset price and exchange rate movements on the euro area's external position.

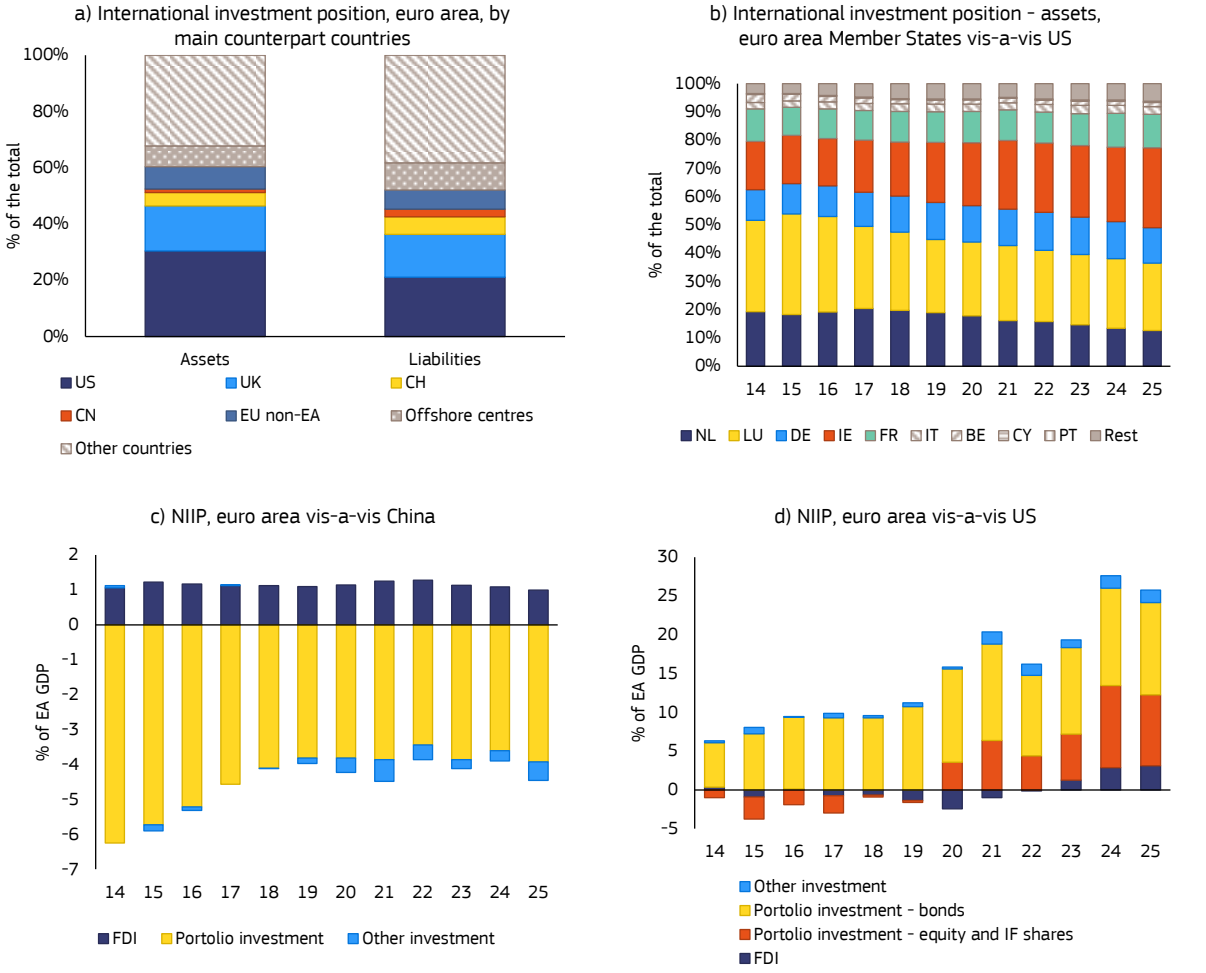
The rise in euro area's US exposure has been driven primarily by portfolio investment and has made its external claims allocated more into equity. Overall, the composition of euro area claims on the US has shifted away from fixed-income assets (debt securities) towards higher-return equity instruments, increasing expected returns but also sensitivity to market repricing. These changes appear to have been driven in important part by valuation effects, which increased the weight of equity instruments relative to debt securities in the US asset holdings (Graph 3.2.d) ([56]). This shift has been most visible in portfolio investments of bonds, non-FDI equity and investment fund shares (Graph 3.2.d), with the strongest increase coming from equity instruments. Euro area investors have benefited from the strong performance of US equity markets, particularly since early 2023, when artificial intelligence emerged as a central driver of returns. According to the ECB, these gains have been especially concentrated in large US technology companies, notably the so-called "Magnificent 7" companies: Their share of S&P 500's market capitalisation increased from approximately 33% in 2023 to around 40%, as they have played a dominant role in the market's rise ([57]). In this context, euro area investors have participated in the AI boom mainly as portfolio investors, increasing their exposure to US tech stocks (ECB, 2026a). Overall, the composition of euro area claims on the US has shifted away from fixed-income assets (debt securities) towards higher-return equity instruments, increasing expected returns but also sensitivity to market repricing. These changes appear to have been driven in important part by valuation effects, which increased the weight of equity instruments relative to debt securities in the US asset holdings (Graph 3.2.d) ([58]).

([56]) The pick-up of AI debt financing via bond markets and the contribution from European investors is not yet reflected in the recent data developments, cut-off data 25/09/2026.

([57]) The Magnificent 7 firms include Alphabet (Google), Amazon, Apple, Meta Platforms, Microsoft, NVIDIA and Tesla. For more information on the methodology, see Chart 11: Performance of US and European AI-related stocks since January 2023 https://www.ecb.europa.eu/press/key/date/2026/html/ecb.sp260323_1~1e06784a89.en.html

([58]) The pick-up of AI debt financing via bond markets and the contribution from European investors is not yet reflected in the recent data developments, cut-off data 25/09/2026.

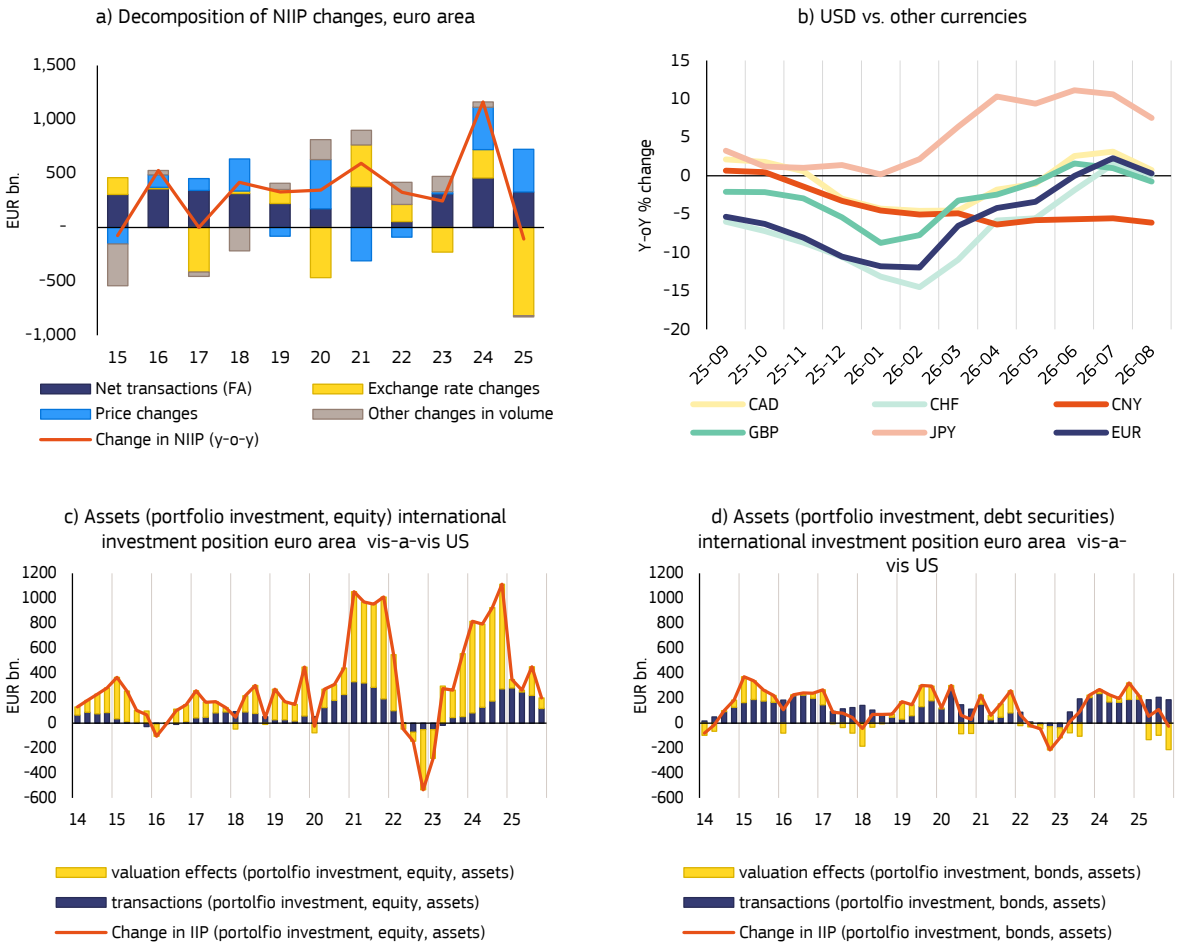
Graph 3.2: **International investment position of the euro area - geographical breakdown**



Notes: 3.2.a "EU non-EA" includes the non-euro area EU Member State and EU institutions that are considered as being outside the euro area (European Commission, European Investment Bank). The 'other countries' include Brazil, Russia, India, Australia, Canada, Norway as well as all countries and country groups not listed as well as unallocated positions. 3.2.c no split of the portfolio investment instruments is available.
Source: ECB and Eurostat.

Valuation effects including exchange rate changes have become key drivers of the euro area's external position, alongside traditional current account dynamics. When analysing the increase in the EU and euro area assets abroad, it is important to disentangle the nominal impact associated with valuation effects due to price and exchange rate changes from that of current account balances. While the euro area's aggregate net external position remains shaped by current account surpluses and resulting constantly increasing stocks, valuation changes have become an even more important driver of year-to-year changes; particularly in 2025, where the euro area's exposure to the US played a decisive role (European Commission, 2026m). On the one hand, euro area investors profited from valuation gains of nearly EUR 400 billion from price effects vis-à-vis the rest of the world (Graph 3.3.a), mainly reflecting strong US equity performance in 2025 (Graph 3.3.c) and partly offset by losses on US debt securities as rising US interest rates depressed bond prices (Graph 3.3.d). On the other hand, the euro area recorded strong losses, exceeding EUR 800 billion EUR, in exchange rate changes. This mainly reflects the depreciation of the US dollar against the euro (Graph 3.3.b). These developments were partly offset in early 2026.

Graph 3.3: **Decomposition of change in the euro area's international investment position**

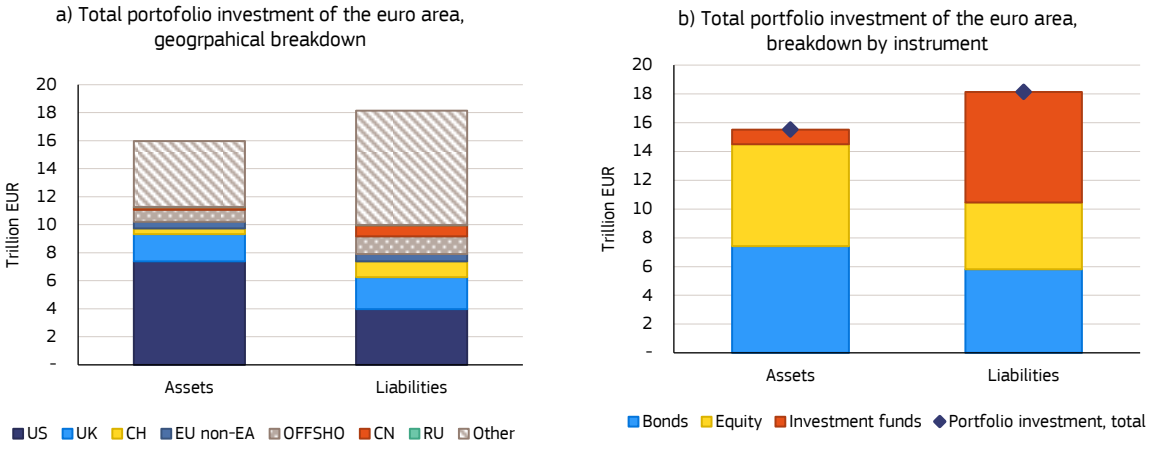


Notes: The decomposition of valuation effects into exchange rate changes and price changes is only available for the euro area aggregate vis-à-vis the rest of the world, while bilateral exposures (for example the US) are not available.
Source: Eurostat and DG ECFIN calculations.

Member State heterogeneity: concentration of exposures and the role of financial hubs

At the aggregate level, the euro area's portfolio investment position reveals several important patterns. In 2025, close to 50% of portfolio investment holdings by euro area investors were issued in the US (Graph 3.4.a). Looking at the underlying instruments (vis-à-vis all debtors), these holdings were distributed broadly equally between bonds and equity, which together accounted for the majority of the portfolio (Graph 3.4.b). It is also notable that euro area portfolio investment liabilities exceeded assets by around EUR 2.8 trillion in 2025. A key reason for this is the prominent role of the euro area investment fund sector in attracting funds from abroad: in 2025, 42% of portfolio investment liabilities consisted of investment fund shares held by non-euro area investors, followed by bonds (32%) and equity (26%). However, the bilateral exposure data suggest that a large share of these liabilities was not held directly by the United States, the United Kingdom, or other major counterparts on the asset side.

Graph 3.4: **Portfolio investment of the euro area**



Source: Eurostat.

Aggregate EU and euro area data mask substantial cross-country heterogeneity, both in extra-EU and intra-EU financial linkages, especially those related to financial hubs. Understanding exposures, specifically vis-à-vis the US, requires accounting not only for direct external positions, but also for intra- EU financial intermediation. Large US exposures are heavily concentrated in a number of Member States, namely Germany, France, Italy, Ireland, Luxembourg and the Netherlands. This reflects differences in financial sector size, institutional investor structure, saving patterns and the presence of multinational enterprises and fund-management (investment funds and/or other financial intermediaries like captive financial institutions or holding companies) activities (Graph 3.5). While financial hubs like Ireland, Luxembourg, and the Netherlands play an important role in intermediating both intra-EU and external financial claims, large share of EU capital invested abroad also originates from EU net-creditors such as Germany and Italy ([59]). To better understand how 'financial savings' (financing) are allocated within and outside the EU economy, the Commission's Finflows ([60]) dataset provides the basis for this macroeconomic analysis by comparing funding sources with the allocation of financial assets both within the EU and internationally.

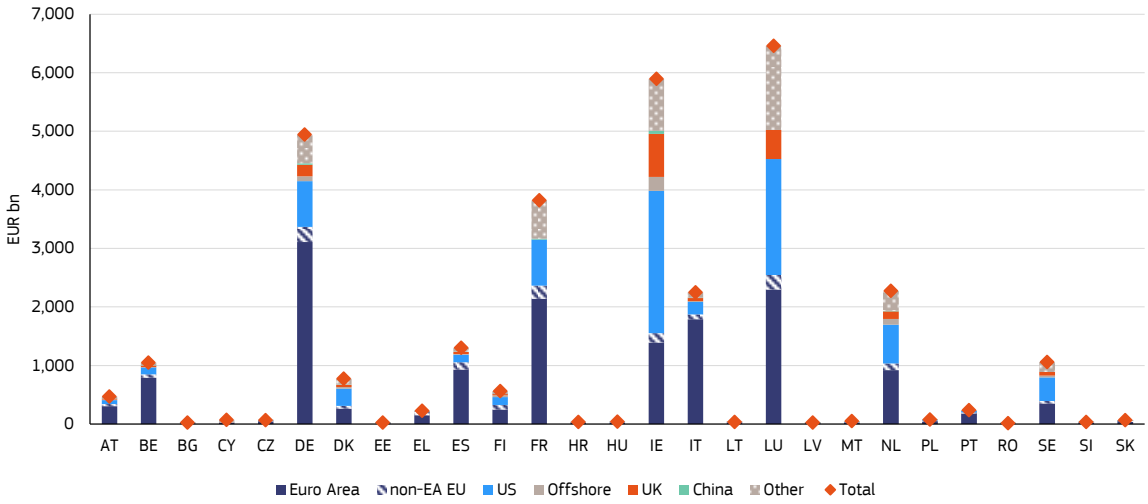
In Ireland and Luxembourg, large financial claims vis-à-vis the US mainly reflect financial intermediation, far exceeding what would be implied by their domestic economic size. Hosting major financial centres, cross-border fund domiciles or multinational corporate groups, Ireland and Luxembourg constitute two of the EU's main financial intermediation hubs, with portfolio investment holdings (non-FDI equity, investment fund shares, debt securities) of around EUR 6 trillion each in 2025, and excluding intra-EU holdings, reaching around EUR 4 trillion each in 2025 (Graph 3.5). This reflects their central role in channelling intra-EU and transatlantic capital flows, rather than domestic saving behaviour. Their external exposures are characterised by a high concentration of cross-border portfolio investment positions, including

([59]) It is, however, important to emphasize that this analysis is based on residency-based statistics which enables to distinguish between immediate exposure, while the final exposure may differ.

([60]) To better understand the financial linkages, the European Commission's revamped "Finflows" dataset is used in this analysis. It provides a harmonised quarterly framework for analysing financial stocks and flows within the EU, across Member States, and between the EU and major global economies. On cross-border exposures, Finflows covers the functional categories Direct Investment, Portfolio Investment, Other Investment and Reserve Assets. By combining domestic sectoral accounts with bilateral cross-border data in a coherent "who-to-whom" structure, it offers a much more complete picture of financial linkages than existing sources taken separately. This makes Finflows particularly valuable for macroeconomic surveillance, spillover analysis and risk assessment, as it helps identify creditor-debtor relationships by sector, instrument and counterpart country, trace the transmission of shocks through domestic and international channels, and detect vulnerabilities stemming from concentrated exposures or cross-border dependencies. For a full description of the dataset, see Aruqaj et al. (2026): https://publications.jrc.ec.europa.eu/repository/handle/JRC148482

exceptionally large intra-euro area links such as Germany–Luxembourg (around EUR 1.1 trillion in 2025), Italy–Luxembourg (around EUR 0.8 trillion in 2025) and Germany–Ireland (around EUR 0.6 trillion in 2025), which are large relative to typical real-economy investment relationships (Graph 3.6). Large intra-euro area portfolio investment links also reflect the importance of the euro area investment fund sector—particularly funds resident in Luxembourg and Ireland—whose shares are held extensively by EU and euro area insurance companies, pension funds and households, as well as non-euro area investors (Philip R. Lane, 2024). Ireland stands out both as a major recipient of EU portfolio investment and as a reinvestment centre, with substantial holdings in France, Germany and the Netherlands; it is also the only Member State whose exposure to the US (EUR 2.4 trillion) exceeds its intra-EU exposure (EUR 1.56 trillion). Together, Luxembourg and Ireland account for more than half of euro area portfolio assets held in the US, also underlining their importance in mediating transatlantic investment flows. Ireland, Luxembourg, and the Netherlands do not appear to merely receive funds from other EU countries and pass them directly to the US. However, the close alignment between large financial flows from the EU and outward US exposures suggests a strong intermediary function in reallocating European capital towards global markets.

Graph 3.5: **Portfolio investment holdings of EU Member States by major counterpart economies in 2025**



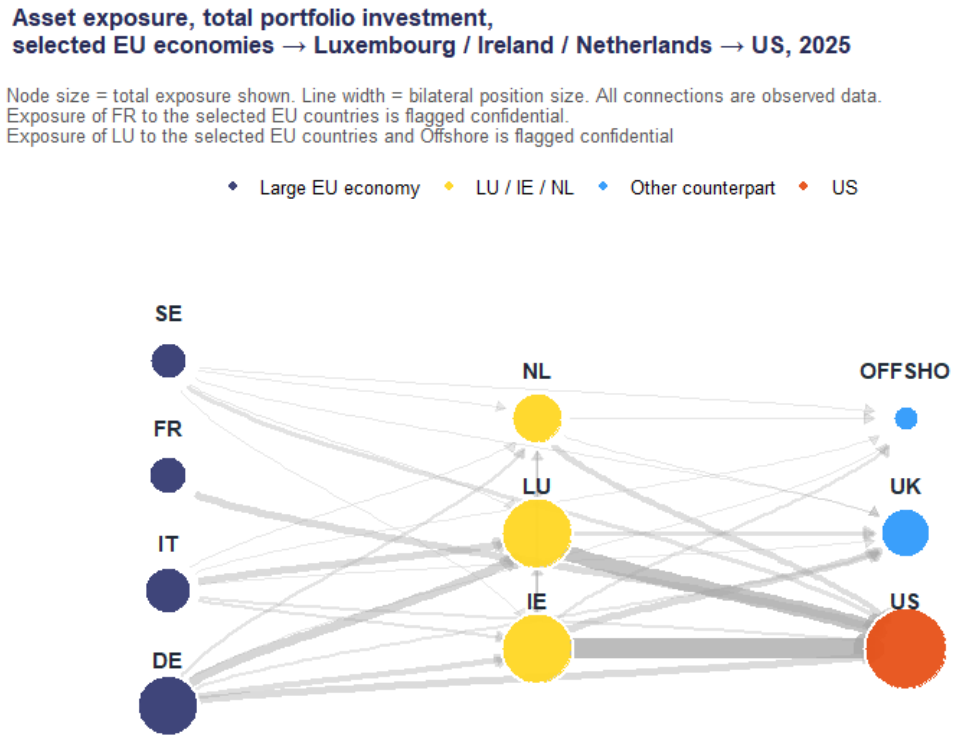
Notes: Portfolio investment include debt securities, non-FDI equity and investment fund shares. Offshores are defined according to Eurostat's Balance of payments Vademecum, November 2025 version. Data for the assets held by France vis-a-vis UK and Offshore, and Luxembourg vis-a-vis China excl. Hong Kong and Offshore is flagged as confidential and therefore not available.
Source: Finflows (Aruqaj et al, 2026).

Alongside these indirect exposures via financial hubs, larger Member States, such as Germany, France or Italy, also maintain immediate financial exposure to US assets, which may be more linked to domestic saving behaviour. Some economies with large household financial wealth and sizeable institutional investor sectors tend to hold greater foreign portfolio assets, including US equities and investment fund shares. In these cases, like in Germany, France or Italy within the euro area, and Sweden and Denmark as non-euro area EU Member States, the reallocation towards the US might be more closely linked to domestic savings behaviour and the portfolio strategies of institutional investors ([61]). By contrast, many smaller, domestically

([61]) The bilateral portfolio investment exposure of France vis-à-vis Luxembourg is flagged as confidential.

oriented economies, like Austria, Belgium, Portugal or Greece, foreign asset positions remain broadly within the euro area, and the direct exposure to the US is less pronounced (Graph 3.5).

Graph 3.6: **Selected bilateral asset exposure**



Notes: Portfolio investment include debt securities, non-FDI equity and investment fund shares. Offshores are defined according to Eurostat's Balance of payments Vademecum, November 2025 version. Data for the assets held by France vis-a-vis UK and Offshore, and Luxembourg vis-a-vis Offshore is flagged as confidential and therefore not available.
Source: Finflows (Aruqaj et al, 2026).

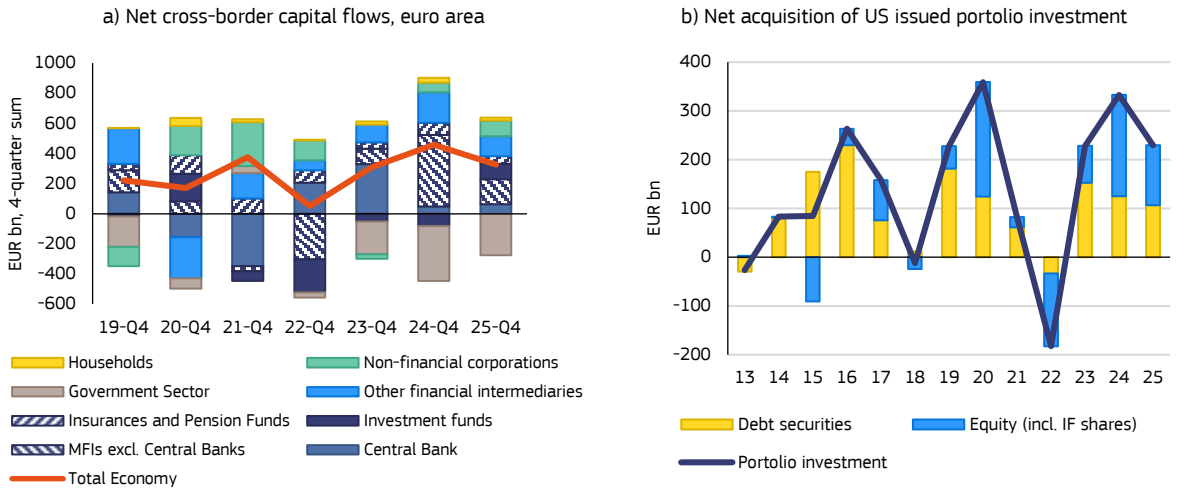
This points to a multilayered structure of euro area financial exposure. Large euro area Member States such as Germany, France and Italy are exposed to the US not only directly through their own external portfolios, but also indirectly through their financial claims on EU hubs such as Ireland, Luxembourg and the Netherlands, which themselves hold substantial US assets. Hence, assessing European exposure on the basis of bilateral positions alone would understate the role of intra-EU intermediation (Graph 3.6): part of the EU's US exposure is effectively embedded in cross-border claims within the Single Market. Financial hubs therefore both concentrate and redistribute exposure across Member States.

US asset allocation: from bonds to equities

Recent developments point to a growing tilt of European external asset holdings towards US equities, increasing the sensitivity to valuation effects. A large part of the increase in the EU and euro area net external position reflects rising US equity prices, especially since 2023, as discussed earlier. At the same time, European investors have contributed by purchasing US debt securities, including Treasuries, and debt inflows have remained an important

source of financing for the US current account deficit (Chari & Milesi-Ferretti, 2026). However, 2025 was the second consecutive year that European investors purchased more US equity (around 123 billion EUR) than US debt securities (around 106 billion EUR) ([62]). Purchases of US equity have become increasingly important, both reinforcing the portfolio shift towards equity and amplifying the role of valuation gains driving the rise in external asset stocks (Graph 3.7.b).

Graph 3.7: **Net capital flows by sector**



Notes: The euro area net acquisition of US issued portfolio investment is adjusted for the portfolio investment liabilities, based on the International Transactions data by the Bureau of Economic Analysis (BEA).
Source: Finflows, DG ECFIN calculations based on Eurostat, BEA.

The reallocation towards US assets has occurred alongside a more prominent role of the banking sector. In 2025, across all euro area investors, the net acquisition of foreign financial assets was mainly in portfolio investment equity and debt securities. Banks, insurance corporations and pension funds, investment funds and (most likely high-net-worth) household portfolios have all contributed, directly or indirectly, to rising foreign financial exposures. In 2025, banks (Monetary Financial Institutions excluding Central Banks) were the dominant source of net capital outflows, accounting for around 50% of total capital exports of ca. EUR 330 billion (Graph 3.7.a). The volume of total capital outflows via banks was nevertheless lower than in 2024, which could partly be explained by stronger credit growth within the euro area. In addition, it is important to highlight that, given banks' broader role as financial intermediaries, these outflows do not necessarily reflect a direct portfolio choice between lending domestically and investing abroad. Part of the increase may also reflect market intermediation activities, including repo, foreign exchange and other wholesale-market transactions (European Commission, 2026d). Available sectoral data suggest that insurers and pension funds have consistently allocated capital abroad over time, with comparatively less fluctuation than other financial investors, and at lower levels (Graph 3.7.a).

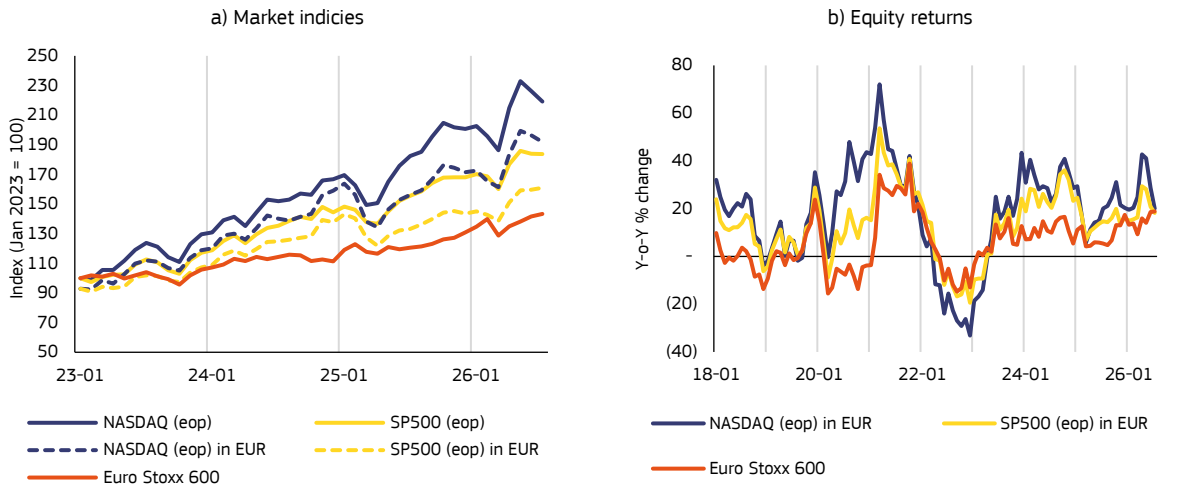
Why European savings continue to flow to the US

Yield and return considerations remain important to explain the sustained reallocation of European portfolios. Since 2023, US equity indices (NASDAQ and S&P 500) have outperformed the Euro Stoxx 600 (Graphs 3.8), with the largest US tech companies recording exceptionally strong gains (Grothe et al., 2025). This 'outperformance' does not appear to be purely

([62]) In 2017 and 2020, European investors also bout more US equity than US debt securities, but these were considered outliers.

cyclical As Chapter 1 demonstrates, the productivity gap between US and the EU is largely structural; this underlying efficiency advantage also contributes to the higher profitability observed in US companies. Chapter 4, meanwhile, documents the rapid advancement of the US technology (particularly in AI applications), which has translated into higher corporate profitability in the US tech sector (especially AI-related activities). This happens against the background that these persistent return gaps are most likely also linked to broad structural features of US capital markets, such as deeper liquidity and a broader investor participation. Consequently, the recorded portfolio allocation shift might reflect not only a search for higher returns, but also deeper institutional and market structures that make US equity more appealing.

Graph 3.8: **EU and US equity returns**



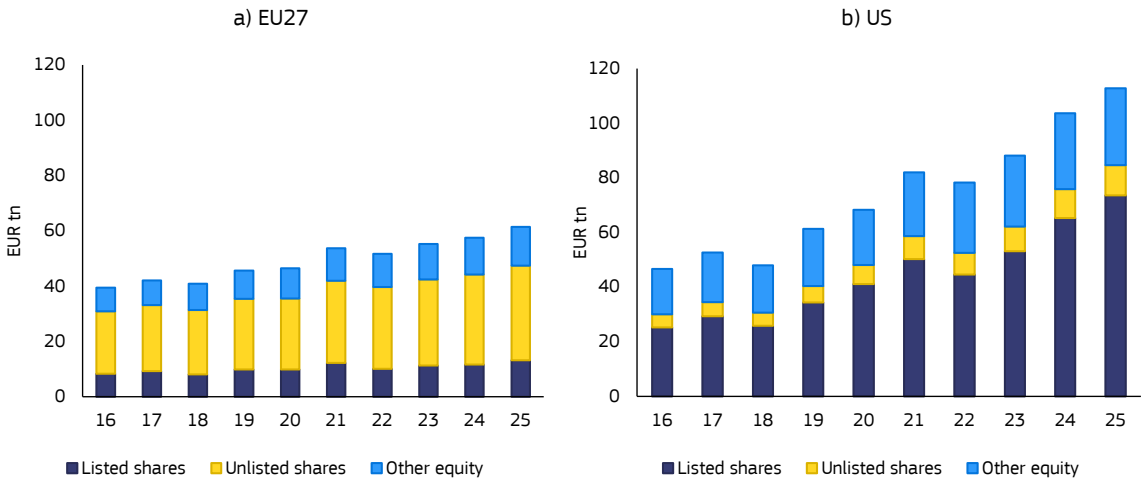
Notes: 3.6.b shows the year-on-year returns of NASDAQ, S&P500 and Euro Stoxx 600 indices.
Source: DG ECFIN calculations based on FRED St. Louis and Macrobond.

First, the scale and liquidity of US capital markets remain unmatched by any single European market. The US government bond market anchors global asset supply, even as the composition of demand for US treasuries has shifted over the last 10 years: The share held by official/ public investors has declined, mainly due to weaker reserve accumulation and larger Federal Reserve holdings, while foreign private investors have continued to expand their holdings of US debt securities (Chari & Milesi-Ferretti, 2026). Meanwhile US corporate bond and equity markets provide liquidity depth. For large institutional investors, this matters not only for expected return, but also for transaction costs, hedging strategies, market access and the ability to adjust portfolios quickly without materially affecting prices.

Second, the US also offers a stronger ecosystem for risk capital and high-growth firms, especially in innovative sectors. Deep venture capital markets, broad analyst coverage, large benchmark indices and growing listed firms result in a much higher level of investment by firms in the US, and therefore larger equity and bond issuance. As a result, US listed shares reached levels of 73.6 trillion EUR in 2025, more than the total equity financing of the EU (61.4 trillion EUR) (Graphs 3.9). By contrast, Europe's traditional reliance on relationship-based financing, in which firms maintain close links with banks and private investors (ECB, 2025) and the lack of alternatives for market-based equity financing, result in more reliance on un-listed equity and other equity markets (Graph 3.9.a). However, this reflects not only differences in financial structure. Firms in the EU also face a range of bottlenecks that can hinder their ability to scale, including skill shortages, administrative burden, legal and regulatory fragmentation, and broader barriers within the Single

Market ([63]). The large share of un-listed and other equity financing also reflects the central role of small and medium-sized enterprises, including limited companies, in the EU economy, which often depend on equity financing outside public markets and bank loans. As a result, European equity markets remain more fragmented, with fewer high-growth listed firms and a smaller supply of equity instruments suited to long term institutional portfolios.

Graph 3.9: **Equity financing by type of instrument**



Notes: Based on financial accounts data. 'Unlisted shares' include unquoted shares are equity securities not listed on an exchange, 'other equity' comprises all forms of equity other than those classified in sub-categories listed shares and unlisted shares, such as equity in limited liability companies. OECD financial accounts was used for the US.
Source: Eurostat, OECD.

Third, the legal, institutional and informational infrastructure of US capital markets further reinforces their global attractiveness. Standardisation, disclosure, corporate governance arrangements, market-making capacity and the global role of the dollar all reinforce the appeal of US assets to global investors. In contrast, EU financial markets remain persistently fragmented along national borders and lack comparable depth, limiting firm growth, innovation and cross-border risk sharing. European commission and IMF analysis show that this is in part due to policy barriers, including differences in banking regulation, deposit insurance arrangements, insolvency regimes, all of which impact cross-border lending and hinder venture capital development (European Commission, 2026d). The result is a less integrated market that falls short of the scale that underspin US capital market dominance (Brandão-Marques et al., 2026).

At the same time, persistent fragmentation within the EU continues to limit the capacity of the Single Market to retain European savings. European investors still face structural barriers along national borders within the EU. Capital markets remain segmented along national lines; insolvency, taxation and securities frameworks differ across jurisdictions; and retail participation in market-based instruments remains uneven. The result is a lower supply of investable pan-European assets and weaker cross-border opportunities for mobilising savings into productive investment within the Union. Taken together, these factors indicate that the EU's external portfolio tilt is not merely a cyclical response to temporary return gaps. It is likely exacerbated by unfinished integration within the Single Market and still limited progress in building a capital market capable of retaining a larger share of European savings.

([63]) See also the Commission's aim to tackle 'Terrible Ten' Single Market barriers: https://ec.europa.eu/commission/presscorner/detail/en/ip_26_901

Diversification motives also matter. Holding US assets allows European investors to diversify geographically, by sector and by currency. Yet the diversification benefit may be smaller than it appears in systemic stress episodes, when global correlations rise and dollar funding conditions tighten. This vulnerability may be amplified by changes in the investor base for US sovereign debt. Whereas public sector investors dominated in 2008, their role has declined over the past decade as private investors have become more important, especially in the acquisition of US treasuries (Chari & Milesi Ferretti, 2026): Unlike public investments, which were largely tied to central bank reserve accumulation, private investors are likely to be more price sensitive and risk responsive. Although the US generally remains a destination for safe-haven flows, demand for US assets may be less stable and US assets prices could be more exposed to shifts in risk sentiment or geopolitical shocks (ibid.).

Risks from concentrated US exposure

The increasing concentration of EU portfolios in US assets creates vulnerabilities that could materialise through several potentially simultaneous channels: exchange-rate, policy impact, market price and ultimately financial stability. Before the pandemic in 2020, total exposure to the US stood at around 25% of foreign financial assets; since 2020, it has increased by around 5 percentage points, driven by stronger equity investment and recorded valuation effects. In addition to the growing equity investments, the euro area and EU continue to acquire US Treasuries. The growing weight of US assets in EU and euro area portfolios creates vulnerabilities that could materialise through several interrelated channels.

Exchange-rate movements remain a major source of valuation risk for euro area and EU investors. Additional depreciation of the US dollar against the euro would reduce the euro value of dollar-denominated foreign assets and could generate sizeable negative valuation effects, as seen in 2025 (Graph 3.3.a). The magnitude of the impact could further depend on hedging practices, asset composition and the persistence of exchange-rate movements.

EU investors are also increasingly exposed to changes in US economic and regulatory policy. Changes in fiscal, trade, tax, financial or regulatory policy can alter the expected return and risk profile of US assets. A reassessment of US fiscal sustainability, changes in corporate taxation, tighter restrictions affecting foreign investors or abrupt policy uncertainty could trigger repricing across Treasury, corporate bond and equity markets. Because EU portfolios are increasingly exposed to these markets, the spillovers could be material even in the absence of direct trade effects.

High and concentrated US equity valuations raise the risk of a sizable US stock market correction with potentially significant spillovers to European investors. A third risk is a market correction: The strong rise in US equity valuations, especially in highly concentrated technological sectors (especially AI-related activities as illustrated earlier), might continue, but also raises the possibility of a sharp repricing if earnings expectations weaken, interest rates remain high for longer, or risk appetite reverses. Such a correction would affect European investors through direct wealth losses, though potential spillovers to other sectors might depend on whether the price correction occurs in equity and/or debt instruments. As shown by European Commission, a relatively small number of EU banks play an important role in US Dollar funding, repo and foreign exchange swap intermediation, including vis-à-vis non-bank financial institutions (European Commission, 2026d). A US market correction could therefore transmit not only through valuation losses, but also via tighter dollar funding conditions, deleveraging, and stress in linkage between banks and non-bank financial institutions.

Uneven exposure to US assets means that both valuation gains and losses are likely to be distributed asymmetrically across the EU. Broadly, as illustrated earlier, two distinct exposure patterns can be distinguished: one linked to financial intermediation (mainly Luxembourg, the Netherlands, and Ireland), where large cross-border positions reflect conduit functions within international financial networks, and another linked more to domestic saving (for example in Germany, France, Italy), where holdings more closely mirror the portfolio choices of households and institutional investors. These distinctions matter because potential shocks are likely to be transmitted through different channels in each case. In 'intermediation'-based cases, global shocks may result in balance-sheet adjustments for financial intermediaries and only indirectly for ultimate owners([64]). In domestic-saving-linked cases, the transmission might operate through direct asset valuation, income, and wealth effects on resident investors. This creates potential vulnerabilities, as common global shocks may have uneven macroeconomic effects across the Member States.

Large and persistent outflows into non-EU assets also entail macroeconomic opportunity costs for the EU economy. Persistently large outflows into non-EU assets imply that European 'financial savings' (financing) are not being fully directed towards domestic investment needs, including the decarbonisation and digital transitions, defence, infrastructure and innovation. This may weaken the EU's long-term growth potential, as highlighted in recent strategic initiatives such as the EU competitiveness compass and the Draghi report (see Chapter 1).

These vulnerabilities underscore the costs of potentially excessive reliance on foreign market depth. The policy challenge is to make domestic investment opportunities more attractive by deepening the EU capital market and reducing market fragmentation, while preserving international diversification. This would ensure more investment opportunities for firms and a lower cost of capital, and allow European financial savings to be allocated more efficiently within the Union, so that external exposures are better balanced.

Policy implications

The concentration of external exposures strengthens the case for deeper and more integrated European capital markets. As shown in this chapter, the high concentration of external exposures underlines the need for caution when interpreting euro area and EU aggregates because they can mask two distinct patters: First, the 'channelling' of cross-border investment through financial centres, such as Ireland, Luxembourg, as well as the Netherlands; second, the large scale of EU 'financial savings' that often finance external markets, notably the US. Although sizeable portfolio exposures within the EU illustrate that capital is being channelled through European hubs, the current large outward financial investment also suggests that a significant share of 'financial savings' is ultimately allocated outside the EU rather than to domestic financing needs. A more integrated EU financial system would help broaden access to diversified financing and investment opportunities while reducing the reliance on foreign capital markets as the main outlet for European 'financial savings'.

The policy priority is to make the EU a more attractive destination for its own and foreign savings while increasing resilience to external financial shocks. This means strengthening the capacity of the EU financial system to offer diversified investment opportunities across the EU capital market in order to finance productive projects within the EU, including for the

([64]) Inter alia this means that price shocks would not necessarily affect residents in the Member States where financial intermediaries are located.

decarbonisation and digital transition, defence, investments in infrastructure and innovation. It also requires building more robust channels for market-based financing so that corporations in the EU, including SMEs and 'start up' companies, can access deeper pools of risk capital, and an appropriate pipeline of investable projects. One essential tool is through the creation of a '28th regime', as announced in the Competitiveness Compass. For investors, such a framework could improve transparency, standardisation and predictability, making it easier to deploy capital across borders and to build larger, more liquid pools of financing within the EU. For firms, it could shorten the path from start-up to scale-up. More broadly, a well-designed 28th regime would support the objectives of the Savings and Investments Union.

Deepening and integrating EU's banking and capital markets remains essential to reduce fragmentation and expand the supply of investable European assets. Further progress on the Banking Union and Capital Markets Union is essential to this effort. A more complete Banking Union would strengthen financial integration, enhance private risk-sharing, support more efficient cross-border intermediation within the EU, and help banks channel savings towards productive investment across the EU. As shown by the European Commission, regulatory and supervisory obstacles, including constraints on cross-border allocation of capital and liquidity, national gold-plating, and divergent supervisory practices, hinder banks from operating on a genuinely EU-wide basis (European Commission, 2026d). At the same time, deeper and more integrated capital markets would broaden funding sources for firms and expand the supply of investable European assets, especially equity and venture capital, in line with the Savings and Investments Union's objective, see Chapter 1.

Deeper Single Market integration and targeted EU budget tools complement capital market reforms by increasing the scale and quality of investment opportunities within the EU. Barriers that limit scale opportunities, innovation and cross-border business expansion reduce the opportunities for European firms. In addition, EU budget instruments like the EUR 15 billion reallocated to competitiveness and STEP under the mid-term review of cohesion policy and the proposed European Competitiveness Fund (ECF) could play a catalytic and de-risking role. The ECF would facilitate access to funding and finance, including for corporations such as SMEs, start-ups and scale-ups. The Recovery and Resilience Facility (RRF), alongside other EU budget instruments, has already shown how targeted public support can crowd in private capital, particularly where high upfront costs, long payback periods or policy uncertainty would otherwise deter investors.

4. MACROECONOMIC IMPACTS OF ARTIFICIAL INTELLIGENCE

Introduction

The macroeconomic impact of AI now tops the policy agenda as governments weigh both its growth potential and adjustment costs([65]). Productivity growth in the EU continues to lag that of the US and China (see Chapter 1), reflecting weak ICT specialisation and scale-up constraints for young firms. The EU Competitiveness agenda, including the Competitiveness compass ([66]), has placed innovation at the centre of efforts to revive productivity growth. With the AI Continent Action Plan ([67]), Europe set the vision of becoming an AI Continent by focusing on key dimensions including computing infrastructure, high-quality data, skills and talent, regulatory simplification and adoption. As a direct follow-up to the action plan, the Apply AI Strategy ([68]) aims to make European businesses more competitive and spark AI innovation by focusing on specific measures to support adoption of AI in European strategic sectors, such as the public sector. This reflects Europe's uneven position: AI adoption is advancing, whereas AI creation lags both the US and other global leaders.

Without stronger efforts to attract private investment and reduce fragmentation between Member States, the EU will fall further behind the US and other global powers in AI capabilities. EU firms are adopting AI tools at a comparable pace to US peers. However, EU private and venture capital investment in AI has stayed essentially flat while US investment has nearly tripled between 2024 and 2025. Available estimates put Europe's share of global AI compute capacity at around 5% in 2026, rising only marginally by 2031 despite substantial planned expansion and remaining well below the US share ([69]). Realising AI's potential, however, depends not only on closing these gaps but on whether AI adoption triggers firm-level productivity gains and reallocation toward the most productive adopters (see Chapter 1).

Much of the debate treats AI primarily as a technology to adopt, overlooking the cost of not producing it. AI production (the compute, models and cloud infrastructure on which adoption depends) is concentrated in a small number of US and Chinese firms, whose combined R&D spending now exceeds the public R&D budgets of most states and whose infrastructure is increasingly dual-use, feeding directly into military and intelligence capabilities. This leaves adopters dependent on infrastructure and standards they do not control. Moreover, it may further increase the attractiveness of the US as a destination for outward investment from the EU. Closing

([65]) This chapter focuses on a number of macroeconomic issues. It does not attempt to elaborate on other relevant questions, like the impact that the diffusion and adoption of AI may have on political debates, misinformation and erosion of trust, bias and discrimina tion, cybersecurity risks, criminal misuse or even human dependence on the technology, etc.

([66]) European Commission, (2025c).

([67]) European Commission (2025a).

([68]) European Commission (2025b).

([69]) Martens and Schenk (2026), drawing on Europe2031.ai. Figures cover wider Europe, including non-EU countries, and are based on an incomplete inventory of existing and announced AI data centres.

the EU's adoption gap with the US solves only part of the problem: economic security depends as much on who controls the underlying technology stack as on how fast it is adopted.

The EU has a strong research base, but turning this strength into commercial scale has been difficult. Both the EU and the US saw a steady increase in the top 1% cited AI-related research from 2005 to 2024. However, the distribution of publications reveals a marked shift in research leadership, with China overtaking both the EU and the US between 2017 and 2019, remaining in the lead thereafter. Improving frontier and generative AI capabilities will require, among other things, using the Savings and Investments Union to mobilise Europe's large savings into risk capital through integrated markets and appropriate investment instruments, on top of public funding. It will also require reducing fragmentation of the internal market to facilitate scaling up. Action needs to consider skills, flexibility, and rules, while ensuring that the regulatory framework is conducive to innovation and adoption. That said, Europe may be able to leverage its competitive advantage in manufacturing to develop industrial AI applications, which EU firms can develop with their in-house stack, and which do not require frontier-like model capabilities. These lighter models can be immensely capable and as transformative when deployed in research and industry as frontier models themselves, helping reap some of the macro-dividends from AI creation.

This chapter focuses on the macroeconomic impacts of AI and does not address its governance or ethical aspects. It also does not provide a sector-by-sector assessment: the analysis relies mainly on economy-wide and cross-sector estimates**.** Sector-specific impacts, such as in healthcare, are therefore only partly captured ([70]). It addresses four main questions. First, how large is the AI opportunity in terms of productivity and employment. Second, where does the EU currently stand relative to the US and China, not only in adoption, but in the capacity to produce and control the underlying technology? Third, what are the economic prospects for the EU under different AI development paths, and what if the EU fails to keep pace? And fourth, which policy levers are most likely to determine whether the EU closes the gap with the US and China, in both AI adoption and AI production, and what risks could undermine progress regardless of policy choices.

Macroeconomic impact

AI and labour productivity

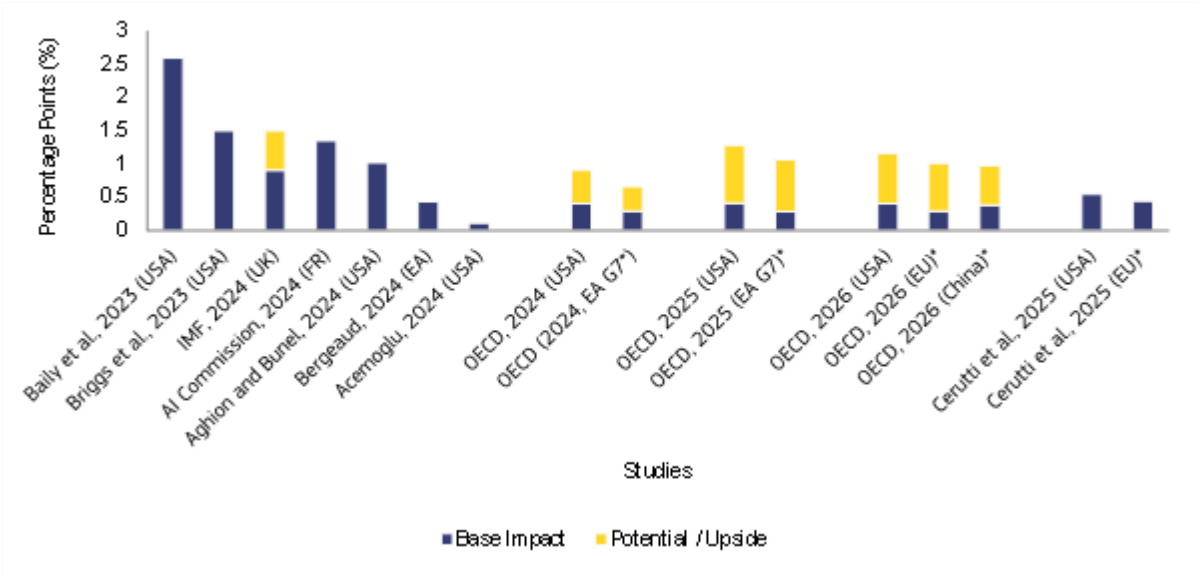
AI progress over recent years has been impressive. Predictive AI models (helping, for instance, with the profiling of customers) have been in use since the early 2010s, but it is only with the recent generative AI models which help solve problems that a user formulates (e.g. by generating code or text), that the potential of this general-purpose technology is becoming evident to the public. This creates conditions for a major increase in computing power (more powerful chips, larger data centres, larger datasets to train new models), which in turn enables further modelling progress. These positive feedback-loops underpin very large and persistent productivity

([70]) This chapter does not cover all sectoral impacts of AI. Healthcare is one example: EU health expenditure was equivalent to around 10% of GDP in 2023, and a recent study by DG CNECT (European Commission, 2026k) estimates that AI-based clinical decision support systems could generate cumulative net cost avoidance of €71–252 billion over ten years in the EU27 (up to about 1% of total EU healthcare expenditure), and automated medical image analysis €126–192 billion (up to about 0.8%), depending on the implementation scenario. These estimates measure cost avoidance in the health sector and are not directly comparable with the economy-wide productivity estimates discussed in this chapter.

improvements in processing information, similar to those seen during the ICT innovations over the past decades ([71]).

AI has the potential to substantially raise productivity growth. The recent literature mainly focuses on productivity gains emanating from AI adoption, though the size of these gains is a subject of debate. AI can, however, also boost the innovation process, by making information processing more efficient and by helping to generate new ideas, notably by recombining existing knowledge. It could therefore increase the ability to innovate (e.g., Aghion et al., 2018) ([72]). Although this is not explicitly modelled in the recent economic literature, this means that AI may lift both productivity levels upon adoption and also raise the underlying productivity growth rate if it keeps fuelling innovation (e.g. Aghion and Bunel (2024) discuss this possibility but deliberately exclude it from their quantitative estimates) ([73]).

Graph 4.1: **Predicted increase in annual labour productivity growth over a 10-year horizon due to AI (in percentage points) – ex ante results from literature**



Source: See references at the end of the paper; for IMF (2024) the underlying reference is Cazzaniga et al. (2024); for OECD Notes: (*) The G7 EA / EU results are are GDP-weighted average of the countries for which results are available. G7 EA = DE, FR, IT. EU = 22 largest EU economies. When the source presents a range of estimates as the main result, the lower and upper bounds are indicated by striped areas. In cases where predictions are made for total factor productivity, predicted labour productivity gains are obtained by assuming a standard long-run multiplier of 1.5 regarding the adjustment of the capital stock (Acemoglu 2024, Aghion and Bunel 2024, Bergeaud 2024 and OECD). The estimates refer to the countries shown in brackets (EA = Euro Area, JP = Japan).

Model-based estimates of the productivity impact of AI are highly uncertain. Micro-level evidence suggests substantial productivity gains in specific workers' tasks, but firm-level evidence is less clear-cut, and generative AI is too recent to show up in macroeconomic productivity data. As a result, estimates of future productivity effects rely on model-based estimations, which are surrounded by substantial uncertainty (Graph 4.1). Model-based estimates suggest AI could add

([71]) Productivity improvements characterising ICT innovations in the past decades has been linked to feedback loops between increasingly sophisticated ICT solutions and increasingly powerful semiconductors, following the so-called Moore's law. The power of AI tools has been estimated to double every six months. This is much faster than Moore's law (capacity of computer chips doubles every 2 years), which, alone, is claimed to explain 10 to 20% of the productivity growth observed over the period 1960-2019. See, e.g., Azar (2022), Moore's Law and Economic Growth, Federal Reserve of New York staff reports, 970.

([72]) Aghion, et al. (2018).

([73]) Aghion, and Bunel (2024).

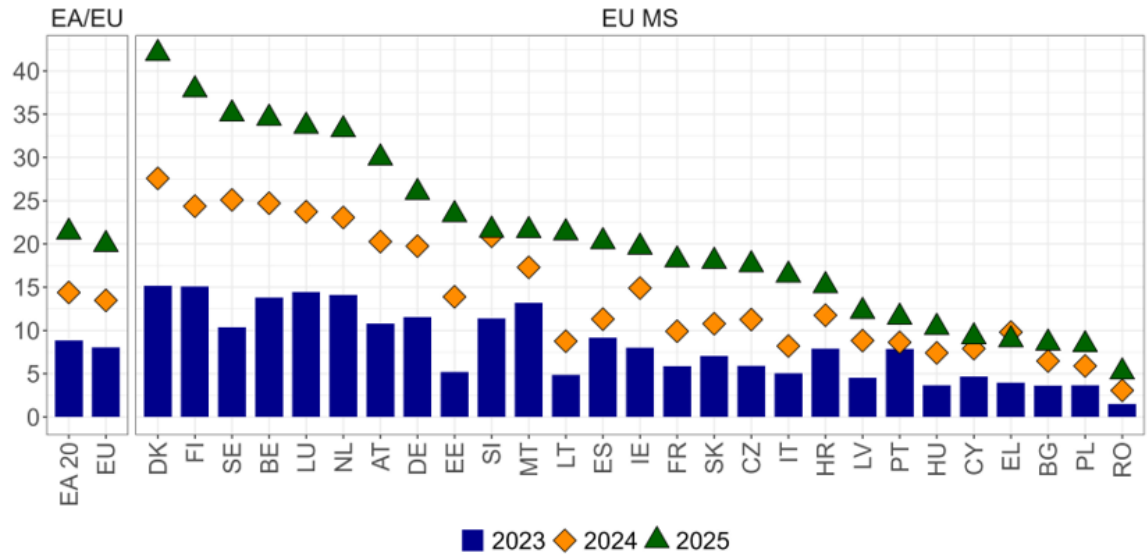
between 0.4–1.1 percentage points per year to US productivity growth over the next decade, with EU gains estimated to be lower, ranging between 70% and 90% of US gains. This is linked, among other factors, to deeper adoption and more a favourable composition of the economy.

Ex post evidence suggests substantial productivity gains in certain tasks. AI is characterised by highly efficient learning and more autonomy (e.g. AI agents) and integrating AI solutions can speed up some tasks and automate others. In this respect, AI can be valuable for identifying and predicting patterns, performing calculations, automating routine tasks, or assisting with drafting and translating. At task level, Brynjolfsson et al. (2025) estimated productivity gains of about 30% after 3 months in customer service occupations. Other task-level estimates range, for example, from 55% for coding, to 12% for drivers, and 6% for writers ([74]).

AI adoption among businesses and households

European businesses are adopting AI at a growing pace, converging with the US. The number of EU enterprises using AI increased from 8% in 2023 to about 20% in 2025 (Graph 4.2) ([75]) and survey-based evidence indicates AI adoption rates across EU firms closely track those in the US (Maslej et al, 2025) ([76]). This however masks a widening divide between countries: adoption is highest in the Nordics, Benelux and Austria (30–42%) and lowest in Romania, Poland, Bulgaria and Greece (5–9%). Adoption is also uneven across firm types, being higher in the ICT sector, professional services and some high-tech manufacturing industries and among larger firms.

Graph 4.2: **Share of enterprises (with at least 10 employees) using at least one AI technology**



Source: Eurostat survey (2025) on ICT usage in enterprises [isoc_e]

Several factors hold back adoption. A lack of relevant expertise is the main obstacle (Graph 4.3.a), pointing to a clear training need. Legal concerns and worries about data privacy violations rank almost as high, followed by the limited availability or quality of data and the incompatibility with existing hardware and software. This expertise gap has deep roots: across EU countries, a substantial share of the population scores low on adaptive learning, the ability to acquire and apply

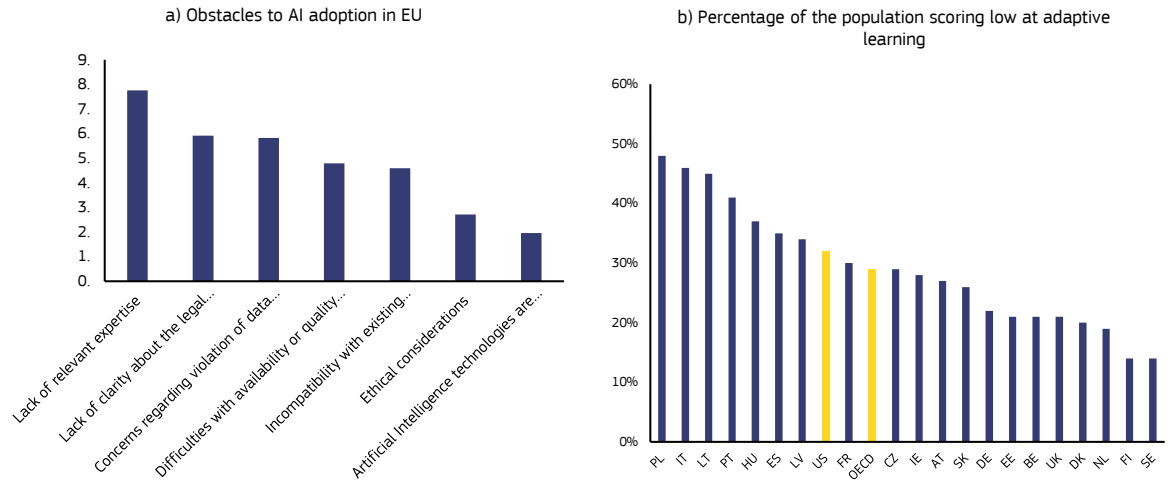
([74]) Misch et al. (2025).

([75]) AI use is defined as using at least one of these technologies: autonomously moving machines, natural language generation, image recognition, speech recognition, machine learning for data analysis, text mining and robotic process automation.

([76]) See Maslej et al. (2025), Allen (2026), EIB Investment Report (2026a).

new skills, with wide variation between Member States (Graph 4.3.b). In 2025, the share of adults in the EU who had at least basic digital skills ([77]) stood at 60%, far below the 80% target by 2030. The AI Act, the EU's regulatory response, aims to build trust in AI, though firms still report compliance complexity as a contributor to the legal concerns weighing on adoption ([78]).

Graph 4.3: **AI adoption's obstacles**



Notes: Data for EU. % of companies with 10 persons employed or more.
Source: Eurostat

Over half of Europeans use AI, though adoption varies across countries. According to the European Business Cycle Indicators AI survey, around 54% of Europeans use AI ([79]), slightly less than in the US ([80]). Use is higher among employed Europeans, but work-related use is still below personal use ([81]).

A vast majority of European AI users say AI speeds up their work, improves the quality of their output, and makes their workload more manageable ([82]). Employed AI users estimate that AI saves them an average of 7.4 hours per month, amounting to an estimated 0.9% gain in TFP from current AI use. Countries differ widely, but on average these amounts to time savings of 4.6% for AI users and 1.5% for all employed Europeans, users and non-users combined. In comparison, the share of total work hours saved in the US is 2.2%, reflecting the higher work-related AI use among employed people.

Many workers however fear AI's impact on their jobs. Two in five Europeans using AI report fears of losing their jobs or becoming redundant due to AI. These concerns are stronger among

([77]) Skills for the digital age - Statistics Explained - Eurostat.

([78]) Among firms who don't adopt AI, EIB (2026) shows that the main reason is that firms don't need AI or don't see the benefit of adoption.

([79]) See European Commission (2026e). The survey gathered 25433 responses in 22 European countries and was conducted during February-March 2026.

([80]) The values come from the Real-Time Population Survey deployed in February 2026, published in GenAI Adoption Tracker: Harvard Project on Workforce, Bick and Blandin (2026).

([81]) The non-employed population includes the unemployed, retired and disabled people, but also students, military personnel, and individuals performing training or unpaid work. The work-use of AI reported by the group of the non-employed reflects its usage in job-searching, learning or work-related activities, particularly for those in the two later groups.

([82]) See European Commission (2026e).

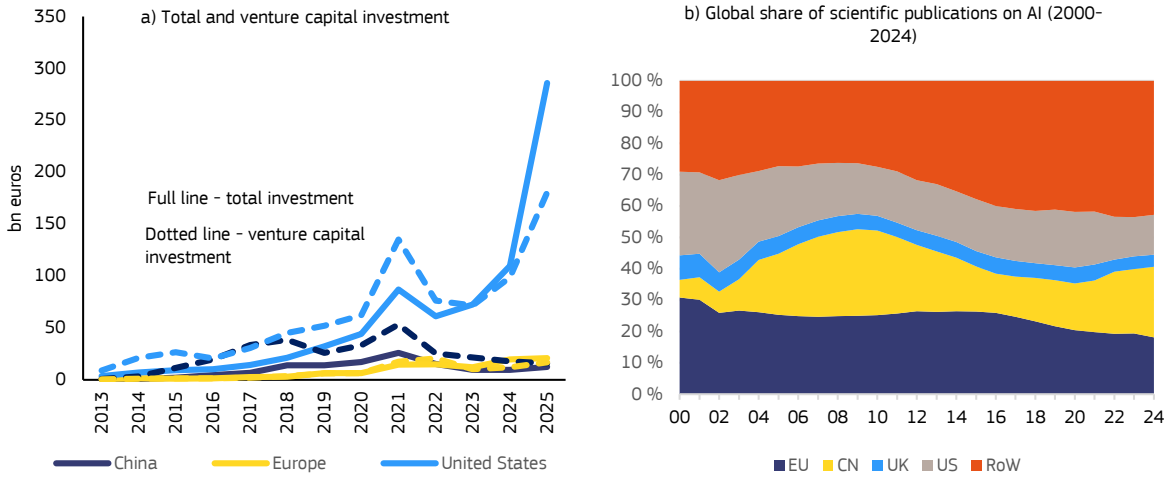
younger, less-educated people and those in lower-skilled occupations, the same groups that report the largest productivity gains ([83]). However, the share of Europeans declaring those fears seems to be decreasing as AI adoption increases. More than eight in ten Europeans (82%) say protecting workers' privacy would be important in addressing risks and maximizing the benefits of digital technologies, including Artificial Intelligence, in the workplace ([84]).

AI investment

Private investment in AI has grown rapidly, and the US has captured most of this expansion. Between 2010 and 2025, the US accounted for the largest share of global investment in AI startups, corresponding to around 80% of global AI investment in 2025. In dollar terms, total private AI investment in the US remained modest through the mid-2010s before accelerating sharply, reaching approximately $110 billion in 2024 and almost tripling to nearly $300bn in 2025 (Graph 4.4a). By contrast the EU, China, and the UK saw flat private investment trajectories with minor fluctuations over the same period. EU AI investment amounted to around 5% of global AI investment in 2025 ([85]).

Venture capital investment in AI tells a broadly similar story (Graph 4.4.a). The US experienced a sharp increase around 2021, reaching approximately $130 billion, before a correction and then a renewed surge to around $180 billion in 2025. China grew faster than the EU through much of the period to 2022, but Chinese venture capital in AI has since declined sharply, while EU investment has remained stable at modest levels.

Graph 4.4: **Total and venture capital investment and global share of scientific publications on AI (2000-2024)**



Source: a) OECD ; b) CEPS and AI World (https://aiworld.eu/) based on OpenAlex (2025; as of May).

Patent data tell a different story from private investment: China's position here is not flat but rising fast. China experienced a rapid increase in AI patent applications from the mid 2000s onwards and accounted for about 30% of global patent activity in 2022. This gain came

([83]) See European Commission (2026e), data collection February/March 2026.

([84]) Artificial Intelligence and the future of work - February 2025 - - Eurobarometer survey.

([85]) For the purpose of data comparability, these figures, capture external private equity and VC funding, including funding rounds for frontier labs and startups. Including the big 4 US cloud giants, the US figure is closer to USD 900bn, while the EU figures would be unchanged.

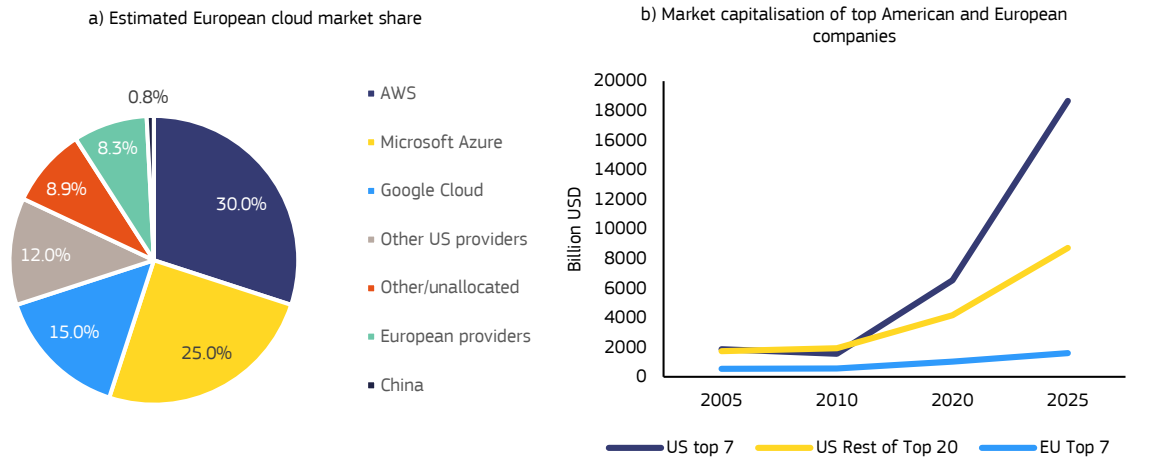
mostly at the expense of the US, whose share fell from more than 50 % in 2000 to around 29% in 2022. The EU's share declined from around 20 % in 2000 to 12% in 2022. The same pattern shows up in the world share of scientific publications on AI where China saw a sharp rise from 6% in 2000 to 23% in 2022. (Graph 4.4.b).

These financing gaps sit within a broader pattern: EU R&D and venture capital lag behind the US across the economy, not only in AI (see Chapter 1). What is specific to AI is where that shortfall bites hardest: in the capital-intensive foundational models and computing infrastructure described above, where the EU's narrow slice of the value chain (Table 4.1) is a direct consequence of this wider financing gap. AI spending is set to become the primary driver of growth in technology spending by enterprises (Tillett, 2026) and is already concentrated in knowledge-intensive sectors: finance, professional services, and IT and programming each exceed $40 billion in AI spending in 2025. Pricing has shifted from flat-rate access toward per-token usage, a change that may add pressure to corporate AI budgets, raising the stakes of who controls the underlying infrastructure. The rapid uptake of AI is also raising data centres' electricity demand, with the EU already lagging in both computing capacity and, potentially, power availability (see "Risks from AI" and Box 4.1).

Valuations, credit exposure, and concentration all leave the euro area exposed to an AI repricing. Equity markets remain stretched by historical standards (Graph 4.5.b), with corporate bond risk premia compressed globally. At the same time, AI company valuations are growing faster than aggregate equity indices, and high and increasing concentration risk amplifies the potential impact of a revaluation. A disappointment in AI earnings expectations could trigger broader repricing, not confined to the tech sector. A growing share of AI infrastructure investment is funded through private credit, which could expose euro area pension funds and insurers to material second-round losses if AI-related returns disappoint. Euro area investors are directly exposed, since asset valuations are particularly high in the technology and AI sectors, where they hold significant positions.

Production gaps create strategic dependence for the EU. As supply chains for AI hardware and infrastructure remain geographically concentrated and vulnerable, concerns about economic security are increasing. Private and venture capital investment in AI, and the data centres that host it, are heavily concentrated in the US. As a result, the EU remains dependent on a small number of foreign suppliers for critical AI infrastructure, with US companies alone accounting for over 80% of the European cloud market against an 8.3% share for European providers (Graph 4.5.a). The limited availability of competitive European alternatives in several critical areas continues to constrain substitutability, increasing risks related both to security of supply and to exposure ofkey infrastructures and services to external vulnerabilities.

Graph 4.5: **European cloud market share and market capitalisation of top American and European companies**



Source: a) European Parliament report (2025) b) Bloomberg

The EU has kept pace in adopting AI in physical systems and applications (see above), but lags in developing foundational models and computing infrastructure that underpin them. The market is dominated by a small number of US firms, with EU providers occupying a comparatively narrow slice of the value chain (Table 4.1). This echoes a broader pattern: the same US firms (Amazon, Alphabet, Meta among them) now also rank among the world's largest corporate R&D spenders, a position that the EU's largest firms, still led by decades-old automotive incumbents, have not come close to matching (see Chapter 1, Table 1).

Table 4.1: **The AI Value Chain and the position of EU**

Layer	Global Leaders	EU Position
Semiconductors	NVIDIA, TSMC, ASML	It hosts a critical supplier (near monopoly) enabling the production of advanced chips
Cloud infrastructure	AWS, Microsoft Azure, Google Cloud	Highly dependent
Foundation Models	OpenAI, Anthropic, Google	Emerging challengers (Mistral, Cohere)
Applications	Diverse global players	Competitive
Industrial AI	Siemens, Bosch, SAP	Strong

Source: Author's elaboration.

AI and employment

Artificial intelligence (AI) can complement workers, thus boosting labour productivity growth, create new tasks and jobs but also displace others. According to recent academic literature[1], several mechanisms are at work. First, machine learning and robotics enable a new wave of automation capable of performing both cognitive and manual tasks, and routine as well as, increasingly, non-routine ones, with affected workers requiring reskilling for new roles[2]. Second, deploying AI requires advanced technical specialists, such as machine learning engineers, and gives rise to new tasks and roles. Third, the most common effect identified is that of job

transformation. Current evidence suggests that rather than simply replacing a position, AI is expected to increasingly change the task content of a job.

Existing evidence suggests a neutral or positive impact of AI adoption on aggregate employment. Initial AI diffusion is likely to generate demand for workers developing and deploying it. Several studies suggest that these effects outweigh displacement effects in the early stages of adoption, leading to positive employment effects (Albanesi et al., 2023; Hayton et al., 2023; Guarascio and Reljic, 2025). Other studies (Marguerit, 2025; Jaumotte et al., 2026) find increased demand for AI skills has had no significant impact on aggregate employment ([86]).

While some studies point to potentially negative effects for the employment of junior workers, evidence remains inconclusive Generative AI may reduce demand for junior workers both by automating tasks traditionally done by less experienced staff and by raising the productivity of senior employees ([87]). Recent US studies point to possible negative effects for junior workers in AI-exposed occupations ([88]). However, this evidence is subject to important identification challenges. In particular, it is difficult to disentangle the effect of AI adoption on early-career hiring from that linked to remote work practices (Lambert and Schindler, 2026) ([89]). Additionally, these findings may also reflect other factors such as broader hiring caution and longer-term structural trends predating generative AI. For the EU and Member States, the evidence is still limited and does not allow firm conclusions at this stage.

Like other IT innovations, AI is "skill biased", reshaping skills demand. AI raises relative demand for some workers with digital and AI-relevant skills, and generating demand for new roles and skills. This is visible in vacancy data: in the US, AI skills appeared in fewer than 1% of job postings before 2015 but in almost 5% by 2025 (Jaumotte et al. 2026) ([90]). While data on the availability of AI skills in the EU is scarce, a 2024 survey by Cedefop in eleven Member States provides some insights on the existing AI skills gap and the participation of workers in AI-related training([91]). On average, 42% of surveyed workers reported that they think to have large or some skills gap in using AI tools and systems for their jobs, whereas only 15% participated in training to develop skills for using AI tools. AI training participation mirrors existing inequalities in general and digital skills development

([86]) See also European Commission (2026i).

([87]) AI has not been integrated in the EU's Commonly Agreed Methodology for estimating potential output (EUCAM) due to the enormous uncertainties on AI diffusion, adoption, productivity lags, an evolving balance between capital and labour, uncertain net effects and measurement challenges. For an outline of how AI is implicitely captured in the EUCAM framework, see Autumn 2026 forecast.

([88]) Stanford Digital Economy Lab (Brynjolfsson et al., Aug. 2026); Anthropic

([89]) See also OECD Employment Outlook 2026.

([90]) Jaumotte et al. (2026).

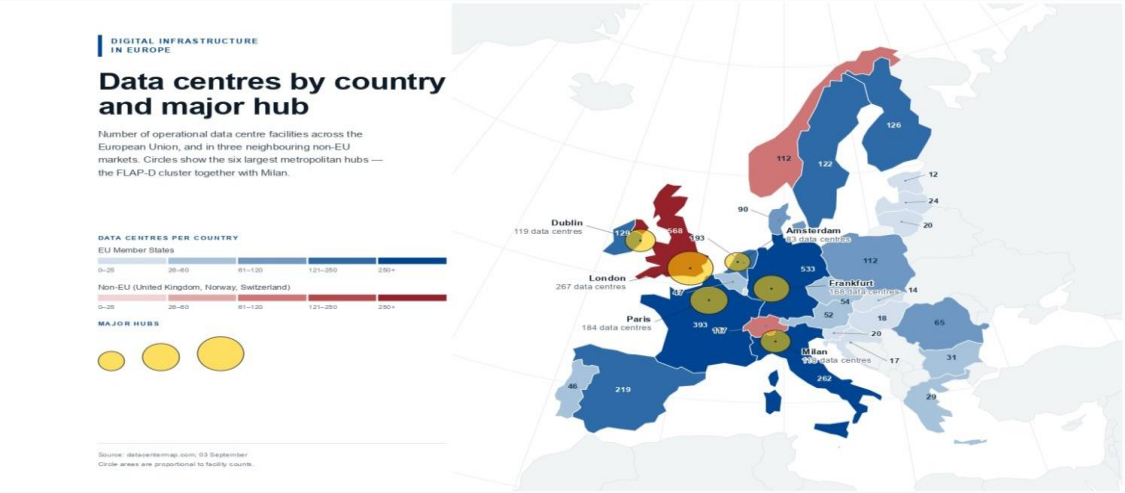
([91]) Cedefop, Skills empower workers in the AI revolution – first findings from Cedefop's AI skills survey, Publication Office of the European Union, 2025.

Box 4.1: ***The energy implications of AI and data centres.***

Global electricity demand of data centres is set to roughly double by 2030, with AI as the main driver. Data centre electricity demand grew by 17% in 20252, compared to a 3% increase in global electricity demand ([1]). IEA's latest projection sees consumption increasing from 485 TWh in 2025 to around 950 TWh in 2030, with electricity consumption from AI-focused facilities tripling ([2]). Europe's position has weakened over the past decade. The region accounted for more than 25% of global data centre capacity in 2015 but declined to 15% in 2024, having grown at around half the worldwide average rate over that period ([3]). EU data centre installed power ([4]) is expected to rise from around 12 GW in 2025 to around 28 GW by 2030, while the Commission's stated policy objective is to triple capacity within five to seven years. For Europe, the IEA projects data-centre electricity consumption to grow by more than 45 TWh (around 70%) between 2024 and 2030 ([5]). At global level, data centres are expected to account for less than 10% of electricity-demand growth in the period up to 2030. For the EU specifically, IEA modelling puts the share of data centres in overall electricity demand growth by 2030 at around 10% ([6]).

Aggregate EU figures conceal strong geographic concentration. Germany, France, the Netherlands and Ireland account for nearly two-thirds of EU data-centre energy use, with national shares of electricity use ranging from 0.4% to 18%, against an EU average of 2.2% (2022) ([7]). In Ireland, data centres' share of metered electricity consumption rose from 5% in 2015 to 23% in 2025, with consumption up 10% in a single year compared with 2% for all other users ([8]). Data centres, and thus the related electricity demand, are currently clustered around Frankfurt, Paris, Amsterdam and Dublin, while capacity is also growing in Spain, Italy, Belgium, Poland and the Nordics ([9]). Clustering reflects connectivity, proximity to users, low latency (i.e. near-instantaneous response times), existing infrastructure and skilled labour. It persists even where grid connections are constrained. Most announced capacity in Europe is still planned for existing hubs despite constrained grid connections, although delays are beginning to push investors towards regions with more grid capacity.

Graph 1: ***Data centres by country and major hub***



Going forward, the most important constraint appears to be the availability of grid connections and timely grid access in the desired locations. Connection requests for data centres are rising sharply, with

([1]) International Energy Agency (2026), Electricity 2026
([2]) International Energy Agency (2026), Key Questions on Energy and AI, World Energy Outlook Special Report.
([3]) International Energy Agency (2025), Overcoming energy constraints is key to delivering on Europe's data centre goals (commentary, November 2025)
([4]) European Commission (2026), Strategic Roadmap for Digitalisation and AI in the Energy Sector, COM (2026) 501 final.
([5]) International Energy Agency (2026), Electricity 2026
([6]) International Energy Agency (2025), Overcoming energy constraints is key to delivering on Europe's data centre goals (commentary, November 2025)
([7]) European Commission, Joint Research Centre, Kamiya, G. and Bertoldi, P. (2024), Energy Consumption in Data Centres and Broadband Communication Networks in the EU, JRC135926.
([8]) Central Statistics Office, Ireland (2026), Data Centres Metered Electricity Consumption 2025.
([9]) European Commission (2026), Strategic Roadmap for Digitalisation and AI in the Energy Sector, COM (2026) 501 final.

(Continued on the next page)

Box (continued)

individual sites requiring capacities comparable to major industrial installations ([10]). The IEA estimates that grid constraints could delay around 20% of global data centre capacity planned for construction by 2030, and construction of new transmission lines can take four to eight years in advanced economies ([11]). Wait times for critical grid components such as transformers and cables had doubled over the three years to 2025. The Commission has issued guidance on grid connections, network charges and anticipatory investment, while the European Grids package aims to accelerate permitting ([12]). Grids are not the only strategic assets needed to integrate data centres sustainably into the energy system. Access to clean energy supply, solutions for data centre flexibility and improving energy performance, such as waste heat recovery, are also important dimensions. The Strategic Roadmap for Digitalisation and AI in the Energy Sector addresses grid integration, clean energy supply, flexibility and energy performance together, including through instruments specific to data centres ([13]). The main challenge is timing: data centres can be built in one to two years, whereas grids and generation often take can take five to ten years in many jurisdictions and new transmission lines four to eight years in advanced economies, while the EU aims to triple data centre capacity within five to seven years.

Data centres require highly reliable power but can also help provide limited flexibility to the electricity system. Electricity demand is high, constant, and must be uninterrupted, so operators rely on on-site storage and backup generation. These are designed for resilience but can also support the grid: a Microsoft data centre in Dublin already uses its backup batteries to help balance grid frequency ([14]). While AI can help optimize energy system operations and, as such, free up grid capacity, data centres can also participate in market mechanisms remunerating flexibility, like balancing or ancillary services and congestion management markets, when they meet the technical conditions. However, uptake remains limited. ENTSO-E considers that it could be further exploited ([15]). Less time-sensitive workloads, such as AI training and batch analytics, can be shifted or moved. An estimated 30-50% of workloads are delay-tolerant, and IEA puts the global technical flexibility potential provided by data centres at around 50 GW by 2035, around half of which could come from managing cooling loads rather than from shifting computing. Flexibility would come from limited adjustments during grid stress, not regular curtailment ([16]).

Apart from electricity, data centres also need water for server cooling. Many modern facilities rely on closed loop systems, including direct-to-chip and immersion cooling, which reuse the same coolant, although water may still be needed to release heat from the facility. Nevertheless, air-based cooling, which is traditionally used in moderate density facilities, is more water-reliant. Reporting by Member States under the EED points to direct on-site water input of 5.7 bn litres in 2024, based on a partial sample ([17]). Estimates including all data centres across the EU suggest a larger annual consumption of about 76 bn litres of water in 2025, around 14% of global data centre water consumption, but only about 0.04% of EU fresh-water abstraction ([18]). The forthcoming EU rating scheme for the sustainability of data centres will cover water efficiency alongside energy efficiency, clean energy use, waste heat reuse, and flexibility ([19]).

Electricity prices are important, but only of several factors that determine the EU's ability to attract AI infrastructure. Despite falling from their 2022 peaks, average EU electricity prices remain well above those in the US and China: in the fourth quarter of 2025, retail prices for industry were about twice as high ([20]). Moreover, following the geopolitical developments in the Middle East, the gap widened in the first half of 2026. Within Europe, prices and generation capacity differ considerably. However, location decisions also depend on other factors, such as grid access, reliable electricity and water supply, broadband connectivity, available land, permitting and skills ([21]). If managed well, data-centre expansion can anchor demand for clean energy generation and contribute to flexibility; managed poorly, it risks aggravating grid congestion and local price pressures in concentrated hubs ([22]).

([10]) European Commission (2026), Strategic Roadmap for Digitalisation and AI in the Energy Sector, COM (2026) 501 final.
([11]) International Energy Agency (2025), Energy and AI, World Energy Outlook Special Report.
([12]) European Commission (2026), Strategic Roadmap for Digitalisation and AI in the Energy Sector, COM (2026) 501 final.
([13]) European Commission (2026), Strategic Roadmap for Digitalisation and AI in the Energy Sector, COM (2026) 501 final.
([14]) International Energy Agency (2025), Energy and AI, World Energy Outlook Special Report.
([15]) ENTSO-E (2026), Data centres and the power system: expected trends, challenges and opportunities, May 2026
([16]) International Energy Agency (2025), Energy and AI, World Energy Outlook Special Report.
([17]) European Commission, European database on data centres (Energy Efficiency Directive, Article 12), 2024 reporting period, figures updated 04 August 2026.
([18]) European Commission, CADA Impact Assessment Report, SWD (2026) 502 final
([19]) European Commission (2026), Strategic Roadmap for Digitalisation and AI in the Energy Sector, COM (2026) 501 final.
([20]) Draghi, M. (2024), The Future of European Competitiveness; Eurostat, Electricity prices for non-household consumers (nrg_pc_205); US Energy Information Administration, average retail price, industrial sector.
([21]) International Energy Agency (2025), Energy and AI, World Energy Outlook Special Report.
([22]) European Commission (2026), Strategic Roadmap for Digitalisation and AI in the Energy Sector, COM (2026) 501 final.

Beyond aggregate employment effects, AI is also likely to reshape how any gains are distributed across workers. Its impact on income distribution may differ from that of previous waves of technological progress, although considerable uncertainty remains about how these effects will unfold:

- As for previous innovations, AI is likely to erode in the short term the relative - and possibly absolute - earnings for workers with routine occupations as automation expands.

- At the same time, AI may improve the relative position of some lower-skilled workers. Unlike previous waves of digitalisation, generative AI has the potential to complement lower skilled workers, enabling them to perform more complex tasks without fully replacing them. This may narrow productivity differences across occupations, improving the relative earnings of some lower skilled workers (Brynjolfsson et al., 2023) ([92]).

The evidence on the impact of AI on wage inequality is mixed. Workers in occupations with high AI exposure but low complementarity may experience modest wage declines following AI adoption, whereas wage effects are generally insignificant in occupations where AI is more likely to complement workers (Jaumotte et al., 2026) ([93]). AI adoption may indeed contribute to labour market polarisation by placing downward wage pressure on middle-income occupations characterised by routine cognitive tasks. Evidence from Denmark however suggests no significant effects on workers' earnings or hours, despite substantial changes in tasks and work organisation following the introduction of generative AI (Humlum and Vestergaard, 2026) ([94]). Several studies find that AI has the potential to reduce productivity differences – and hence reduce wage inequality between workers within the same occupation as lower-performing workers are expected to benefit disproportionately from AI ([95]).

The long-term impact of AI on the labour share depends on the balance between automation and complementarity. **I**f productivity gains from automation increasingly substitute for human labour, AI could place downward pressure on the labour-income share. A larger proportion of national income may then flow to capital owners who own AI systems, data, and computing infrastructure. On the other hand, AI may complement workers and hence raise the demand for labour in occupations and sectors where such complementarity is possible. If AI improves worker productivity, creates new occupations, and increases overall economic growth, wages could rise and offset the decline in labour's share. The direction and pace of AI development and its distributional effects can be steered by policy.

The overall fiscal implications of AI remain uncertain and will depend on the effect of AI on economic growth, employment and the income distribution. Faster economic growth stemming from AI would improve the budget outlook of the government. However, rising inequality, greater job churn, large-scale permanent job displacement and a rapidly growing capital share of income may require a rethink of the tax system. A higher capital share and a lower labour share in value added could substantially reduce tax revenue because labour income is typically taxed more heavily than capital income. The exact effect would depend on whether AI replaces workers, complements them or creates new jobs, and on whether governments adapt their taxes in response. Although uncertainty about the impact of AI on tax bases is high, flexible discretionary

([92]) Brynjolfsson, et al. (2023). Research on the use of AI models in call centres found a 14% productivity increase on average, with the greatest impact on novice and lower-skilled workers, and minimal impact on experienced and higher-skilled workers.

([93]) Jaumotte et al. (2026).

([94]) Humlum and Vestergaard (2025).

([95]) See Brynjolfsson et al. (2023), Choi and Schwarcz (2023), Haslberger et al. (2023), Noy and Zhang, (2023), Peng et al. (2023).

fiscal policy may be needed to address the erosion of the labour tax base and address societal pressure for a fair distribution of AI gains (IMF 2024, Dynan et al. 2026).

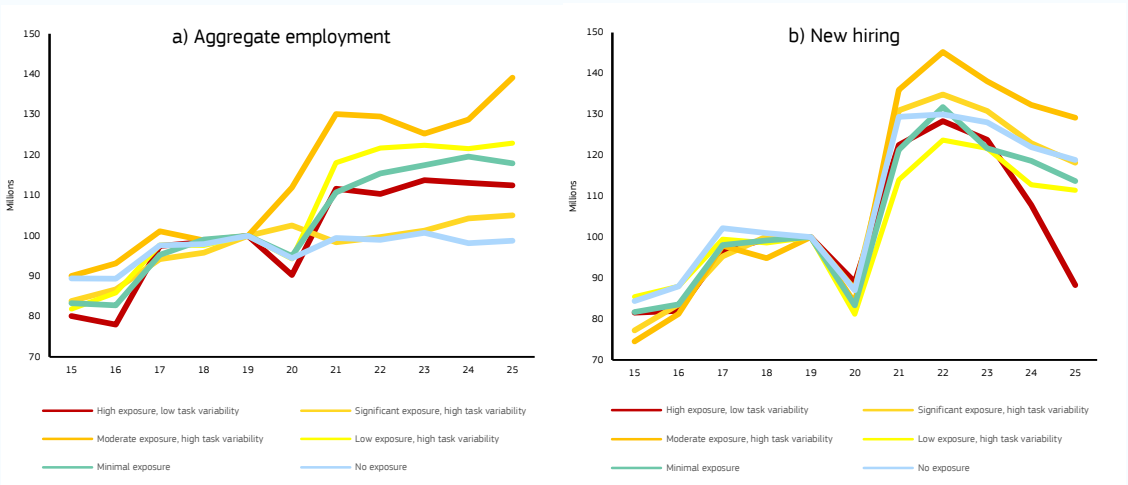
Box 4.2: **AI exposure and employment in the EU**

Occupations combining high exposure to AI with strong complementarity may see productivity gains and employment growth, while occupations dominated by routine tasks may face stronger adjustment pressures. This box combines Labour Force Survey (LFS) data with the ILO's 2023 Global Index of Occupational Exposure to GenAI (Gmyrek et al., 2025) to track employment trends across occupations with different AI exposure levels. This index combines occupational task exposure to generative AI with a measure of task variability, distinguishing occupations with standardised tasks from those with a more diverse range of activities ( ). The index captures potential exposure to AI rather than actual job displacement, as occupations differ along many other dimensions that shape employment developments, such as demand trends, technological change unrelated to AI, institutional factors, and business cycle sensitivity.

The distribution of ILO AI exposure categories in the EU shows that most workers hold occupations with no or low generative AI exposure. Yet, one in four workers is expected to be moderately or highly exposed to generative AI. Most of them, however, are in occupations with high task variability, suggesting that AI is expected to affect some, but not all, of their tasks. A smaller share of these workers (3%) is employed in the highest exposure categories, which are primarily concentrated in clerical and administrative occupations characterised by relatively standardised task profiles. These workers are likely to face a higher risk of job losses from automation.

Aggregate employment increased in all categories following the 2020 decline, although the pace of recovery varied considerably. Graph 2a shows the headcount employment in the EU 27 over the past decade across AI exposure groups (based on the 2025 ILO AI Exposure index). Occupations with moderate AI exposure and high task variability recorded the strongest employment growth over the period, followed by low exposure and high task variability and minimal exposure. Growth was more modest, by contrast, in occupations with high exposure and low task variability, while employment in no exposure occupations remained broadly stable relative to 2019. So far there is no evidence of aggregate job losses, although aggregate trends do not rule out adjustment pressures within specific occupations or worker groups.

Graph 1: **Aggregate employment and new hiring**



Source: Labour Force Survey and ILO (2023)

The impact of AI on newly hired workers remains uncertain as employment dynamics reflect several confounding factors. Across all AI exposure categories, the number of newly hired workers (tenure of less than three months) began to decline from 2022 **(Graph 2b).** This broad-based decline likely reflects cyclical and demographic factors, notably smaller cohorts entering the labour market. Still, it appears more pronounced in occupations with high AI exposure and low task variability, suggesting hiring has slowed most where more tasks could potentially be automated. This is consistent with these occupations' greater sensitivity to AI-related changes. However, the pattern remains descriptive and does not establish causation. Further analysis is needed to disentangle AI exposure from broader

(Continued on the next page)

Box (continued)

macroeconomic conditions, demographic developments, and changes in labour demand and working conditions.

Modelling the impact of an AI led productivity shock

A salient macroeconomic consequence of AI is its potential effect on productivity. Using stylised simulations by the European Commission's QUEST model ([96]), this section revisits the macroeconomic implications of a general increase in *total factor productivity (TFP)* making capital and labour more efficient ([97]). The consequences for Europe depend on how long productivity growth is expected to last, and whether gains are shared globally or concentrated abroad.

The macroeconomic effects of rising productivity depend on expectations about its future duration. To illustrate these differences, we simulate three stylised shock profiles for global TFP. In the first scenario, TFP is expected to ***grow*** over the next 5 years, then settle at a 5% higher level permanently. In the second, TFP unexpectedly jumps to that higher level (front-loaded), and stays ***constant***. Lastly, in the third scenario, the same 5% unexpected jump in TFP proves transitory, from where it gradually ***declines*** back to its original level.

Across the three scenarios, GDP responds positively to higher productivity, although the scale of economic expansion varies. *Expected* gains lead households to consume more, immediately boosting aggregate demand before TFP gains materialise. As actual productive capacity takes time to build up and investment demand rises along with falling saving, the productivity gains act like a demand side shock, raising the equilibrium interest rate ([98]) and labour demand. This leads to inflationary pressure and calls for monetary tightening (Goolsbee, 2026). In contrast, an *unexpected permanent* jump act more like a positive supply shock with disinflationary effects. This is even more so with *temporary* TFP gains, which are largely saved, dampening aggregate demand, moderating output growth, and reducing employment. Then equilibrium interest rates might even decline, prompting interest rate cuts ([99]).

The economic expansion increases fiscal space. Focusing on the case with anticipated TFP growth, a lower interest-growth differential slows down public debt dynamics by the beneficial denominator effects on debt-to-GDP from higher nominal GDP which more than offsets the rise in interest expenditures for the government. Longer average debt maturities initially shield public finances from the productivity-driven increase in interest rates, while the benefits of higher growth are already felt. These gains allow the government to reduce debt and gaining fiscal space.

([96]) QUEST is a New Keynesian open economy business cycle (DSGE) model, which assumes exogenous trend growth, and models fluctuations *around* this trend. As such, the results can give insights about short/medium-run transition dynamics, and trace the transmission channels through which TFP shocks propagate in the macroeconomy. Here we use a 2-region version of the model, including the EU and the rest of the world (RoW), with trade linkages calibrated based on the FIGARO database.

([97]) While AI might also have profound implications for labour markets, income distribution, and production structures (see above), this section focuses on its potential effect on economy-wide productivity.

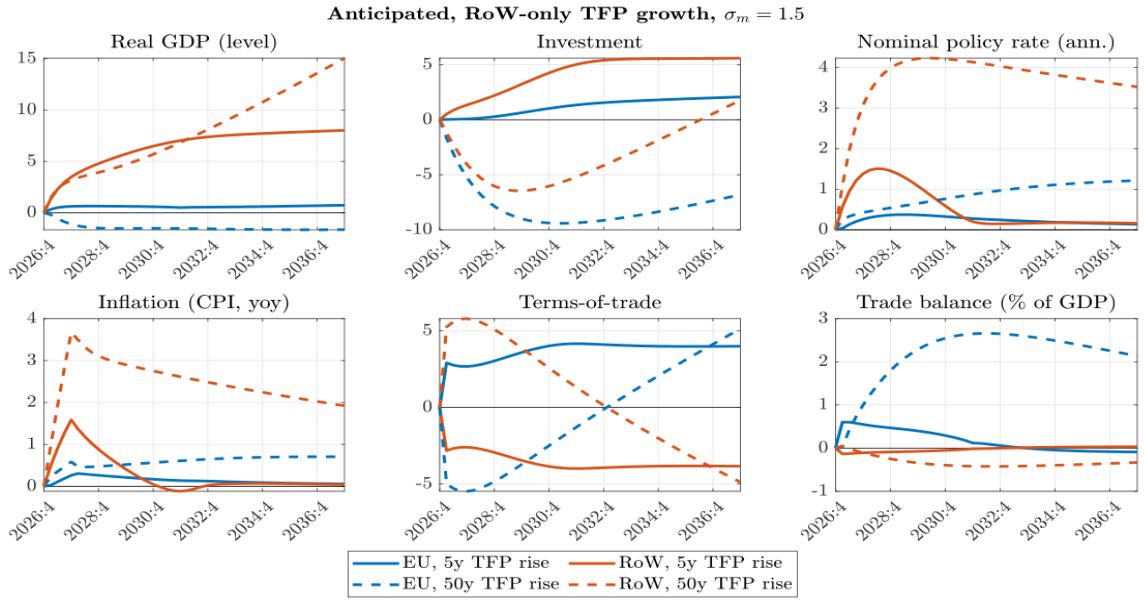
([98]) In an open economy setting, investment spending need not always match domestic saving, as interest rates are influenced by international capital markets, and foreign borrowing is available.

([99]) This distinction is at the centre of a live debate among US policymakers: where some argue that AI-driven productivity gains will prove disinflationary, as Alan Greenspan anticipated of IT in the late 1990s, Chicago Fed President Austan Goolsbee has argued that the anticipatory spending such gains encourage can instead overheat the economy and require higher, not lower, interest rates. Goolsbee (2026), remarks at the Hoover Institution Monetary Policy Conference, Federal Reserve Bank of Chicago, 8 May.

What are the consequences of "missing the train"?

If productivity growth occurs only outside the EU, the EU economy will fall behind in *relative* terms. Graph 4.6 shows a scenario in which only the rest of the world (RoW) experiences higher productivity growth, while the EU does not. Compared with RoW, this leads to Europe's *relative* decline in production volumes (real GDP), but the sign of *absolute* spillovers is ambiguous.

Graph 4.6: **EU vs RoW: The macro effects of an anticipated RoW-only rise in TFP**



Note: Impulse Response Functions (IRF) depict %-deviation of levels from a no-shock baseline in response to an anticipated, gradual and permanent rise in TFP levels only in the rest of the world (RoW). For CPI inflation, the nominal policy rate and the trade balance, lines depict percentage point deviations. RoW TFP growth can be higher for 5 years (solid lines), or for 50 years (dashed lines). Blue lines show EU, and red lines show the RoW.

The spillovers from the rest of the world to Europe depend on the balance between the demand and supply-side effects of foreign productivity growth. TFP growth in the rest of the world (RoW) affects the EU through four channels. First, more efficient production puts downward pressure on the price of foreign goods, raising the purchasing power of European households (a terms-of-trade gain), supporting consumption. Second, stronger foreign consumption and investment benefits EU exporters. Third, the foreign aggregate *demand* boost due to higher expected incomes creates inflationary pressures abroad in the medium run, which worsens Europe's terms-of-trade by pushing import prices up and lowering real incomes. Fourth, higher global interest rates in response to stronger demand and inflationary pressures abroad also tighten financial conditions in Europe, further weighing on EU consumption and investment spending. In our baseline scenario the balance of these channels leads to positive spillovers in *absolute* terms (solid blue line for EU GDP is positive in Graph 4.6). However, the adverse channels might dominate if the increase in foreign productivity growth is long-lasting enough (dashed lines): if RoW productivity growth is expected to be higher for 50 years instead of only for five, then the anticipated increase in future income (the wealth effect) is large enough for demand to dominate and generate negative spillovers for Europe. Due to sluggish capital accumulation, these negative effects can be quite persistent, even after higher interest rates no longer weigh on investment.

Risks from AI

The transition to a more productive AI-driven economy is not without risks:

AI's first-mover advantages risk entrenching a small number of dominant firms and discouraging new entry, unless competition policy adapts. During the US IT boom of 1995–2005, the sector expanded largely unconstrained by merger control, entrenching the position of some incumbents and discouraging new entry, thus leading to a productivity slowdown (Haltiwanger et al., 2014, Decker et al., 2018). Avoiding a repeat requires a shift from static market share tests toward the case for calibrating merger control to long-run innovation incentives rather than current market share alone (see also Chapter 1). Measures such as data-sharing conditions attached to large AI mergers, and support for open-source may reduce the risk of AI-driven concentration, while targeted industrial policy to expand European computing capacity may reinforce rather than substitute for competition policy.

Fierce competition in AI may encourage collective overinvestment, where many companies commit more capital than future returns may justify, leaving the sector financially vulnerable if the expected gains from AI fail to materialise. The scale and speed of today's AI spending boom echo past episodes of overinvestment including canal mania, railway mania, 1920s electrification, and the dot-com bubble. Each episode eventually led to cutbacks, market corrections, and broader economic disruption. Recent analysis suggests the euro area's smaller, less richly valued tech sector provides for a second-mover advantage and limits the risk of a home-grown crash. However, US equity stress has historically also affected euro area stock markets and could extend beyond financial markets to euro area sentiment, financing conditions, and hiring ([100]).

Energy is likely to be the most binding constraint as AI scales in the short-to medium-term, while semiconductor production may also add to bottlenecks in the coming years. The large computing power AI models require also draws on scarce raw materials needed for chips and other hardware production, and on the substantial water requirements to cool servers and other equipment ([101]). The more immediate constraint, however, is not generation capacity but timely grid access: around a fifth of projected data-centre capacity additions worldwide by 2030 are at risk of delay from grid connection queues, and new transmission lines can take four to eight years to build in advanced economies.

Economic security concerns also extend to cybersecurity and model-concentration risk. AI can be misused to identify vulnerabilities, automate attacks, and increase the scale and speed of cyber incidents. Cyberattacks using AI could disrupt vital infrastructure with potentially large economic impacts, and investment into cybersecurity is set to increase sharply in this context, binding capital in non-productive uses. This risk is amplified as financial institutions become increasingly dependent on a small number of shared AI models, creating concentration risk and raising the possibility of common-mode failures, where a single disruption or cyber incident could affect multiple institutions simultaneously. Recent innovations, such as Anthropic's Claude Mythos model, as well as several recent hacking incidents have brought these concerns to the forefront and fostered debate on how AI is amplifying cyber threats that can undermine financial stability, trigger funding strains, and cause market disruptions.

([100]) Andersson et al. (2026).

([101]) The necessary investments to fully exploit AI gains at large scale might also be difficult to achieve, mainly because AI adoption and development require large complementary investments in proprietary data capital that can be hard to acquire to late adopters and new entrants E.g., Corrado et al. (2022).

A key labour market risk is growing inequality in how AI's costs and benefits are distributed. Hiring of young, entry-level and routine clerical workers may weaken although aggregate employment holds up, and AI may increasingly substitute for high-skilled non-routine labour over the medium to long term, though the timing remains uncertain. Whichever groups are most exposed, the balance between displacement, productivity and reallocation effects risks falling unevenly, widening gaps between workers who can move into AI-complementary roles and those who cannot. Further challenges may stem from reduced job quality (associated with work intensification and changes in autonomy), skill atrophy, reduced bargaining power as labour share decreases, and a redistribution of income and wealth from the EU to outside the EU as non-EU AI providers shift related jobs to outside the EU.

Implications for policy

The macroeconomic impact of AI remains uncertain, and that uncertainty is itself a central policy challenge. Uncertainty operates on two main levels. First, does AI reward early adopters, whose advantages in data, users and integration become self-reinforcing, or do late movers benefit more by learning from early mistakes and deploying cheaper, proven technology. The answer matters directly for the EU. Second, if Europe remains primarily an AI adopter rather than a producer, a growing share of high-value digital services will be provided by US firms, with consequences for economic security and data sovereignty. Open-source models could lower this barrier by letting firms build on existing AI systems rather than developing them from scratch. Several Chinese AI developers have moved toward greater openness on this front even as leading US developers move toward more closed models, a divergence some economists see as consequential for who can compete in AI production going forward (Aghion, 2026).

The policy response should operate on three levels. First, skills: unlike other waves of new technologies, which became harder to master as they grew more sophisticated, AI maypose different challenges**.** Education and training systems may help build the digital and AI-specific competencies this chapter has identified as a bottleneck to adoption, alongside the organisational capacity firms need to redeploy workers internally as tasks change. Second, flexibility and support: employees may need support (income replacement and enabling services) to reorient themselves several times over their careers, through better training entitlements and an updated training offer, especially for older and low-skilled workers. Firms may need to invest in transitioning to stable AI-powered workflows. The "flexicurity" model offers one template (see chapter 1). Third, a clear framework could limit the earnings losses this chapter identifies as most likely, for three groups: workers in routine and clerical roles displaced by automation, young and entry-level workers facing weaker hiring, and, over the longer term, high-skilled professionals whose expertise AI makes less scarce.

EU initiatives on AI aim to harness the benefits of AI while mitigating its risks, balancing public trust against the risk of stifling innovation. The EU's approach combines policy initiatives, investments, research and development support, and regulatory instruments, placing increasing emphasis on closing the diffusion gap, including through simplification and support for adoption. On financing, Europe has excellent research, a large Single Market and a growing start-up base, but it still faces a major scale-up gap. EU funds and national policy measures can play a role in providing targeted incentives and the most appropriate financial instruments to mobilise investment and leverage private capital, including through national and regional promotional banks. Completing the Savings and Investments Union is paramount to mobilise capital through integrated markets and investment instruments. On regulation, it is critical to building public trust in AI by

providing a predictable legal framework which is the main objective of the AI Act ([102]). On physical constraints, addressing computing and energy capacity requires investment in clean energy and grids, and a push for efficient AI, so the EU can compete globally while meeting its climate objectives.

Cooperation between countries, including through forums such as the G20, could complement national measures. Areas of cooperation may include assessing supply-chain dependencies, share data and working towards interoperable approaches to AI governance. The EU AI Act provides an example of a risk-based regulatory framework that could inform such discussions, alongside existing international principles. In this context, the Interoperable Europe Act underlines the importance of a common cooperation framework. Ensuring effective collaboration between Member States will be critical to achieving interoperability objectives and strengthening cross-border public administration.

([102]) European Parliament & Council of the European Union (2024).

ANNEXES

ANNEX 1: THE EUROPEAN UNION AND EURO AREA IN THE WORLD

	Population (millions)			Share of World (%) GDP (PPP)			Real GDP per capita (PPP)			Real GDP (y-o-y growth rate %)			Inflation (y-o-y %)		
	2010	2020	2025	2010	2020	2025	2010	2020	2025	2010	2020	2025	2010	2020	2025
Euro area	338.6	345.6	352.6	14.8	12.3	11.7	50097	51811	57517	2.1	-6.0	1.2	1.6	0.3	2.1
European Union	439.9	446.5	452.2	17.6	15.2	14.2	46003	49391	55942	2.1	-5.6	1.5	1.8	0.7	2.5
China	1340.9	1412.1	1404.9	12.7	18.5	19.6	10443	19192	25101	10.6	2.3	5.0	3.3	2.5	0.1
United States	309.7	331.3	341.9	17.0	15.2	14.6	59728	67462	77147	2.7	-2.1	2.3	1.6	1.3	2.7
India	1243.5	1402.6	1463.9	5.4	7.0	8.2	5059	7400	10130	8.5	-5.8	7.8	9.4	6.2	2.0
Japan	127.6	125.8	123.3	5.0	3.8	3.3	41251	43361	48752	4.1	-4.2	1.2	-0.7	0.0	3.2
Russia	142.8	147.7	144.0	3.5	3.3	3.4	33161	36376	42939	4.5	-2.7	1.0	6.8	3.4	8.7
Brazil	194.7	209.2	213.4	2.9	2.4	2.4	17965	17286	19968	7.5	-3.3	2.3	5.0	3.2	5.0
Indonesia	237.6	270.2	284.7	2.0	2.3	2.4	9171	12600	15147	6.4	-2.1	5.1	5.1	2.0	1.9
United Kingdom	62.8	67.1	69.5	2.7	2.3	2.2	48771	48656	56200	2.2	-10.3	1.2	3.3	0.9	3.4
Türkiye	73.1	83.4	85.8	1.5	1.7	1.8	20087	29253	37783	8.5	1.8	3.7	8.6	12.3	34.9
Mexico	114.8	128.2	133.4	2.2	1.8	1.6	20099	19745	21951	5.0	-8.4	0.5	4.2	3.4	3.8
Korea	49.6	51.8	51.7	1.8	1.8	1.6	39698	49529	56138	7.0	-0.7	1.1	2.9	0.5	2.1
Canada	34.0	38.0	41.6	1.5	1.3	1.3	51892	53378	57308	3.1	-5.0	1.9	1.8	0.7	2.1
Saudi Arabia	24.0	31.6	36.0	1.2	1.1	1.3	54912	57421	64802	5.0	-3.8	4.6	3.7	3.4	2.0
Australia	22.2	25.6	27.7	1.0	1.0	0.9	53796	57541	61627	2.4	-2.0	2.0	2.9	0.9	2.8
Argentina	40.8	45.4	47.5	1.0	0.7	0.7	28400	23780	26919	10.1	-9.9	4.5	10.5	42.0	41.9
South Africa	51.4	60.0	63.1	0.7	0.5	0.5	14424	13374	13947	3.0	-6.2	1.1	4.2	3.3	3.2

	Unemployment rate (%)			Total investment (% of GDP)			Current account balance (% of GDP)			Government balance (deficit (-) / surplus (+)) (% of GDP)			Governmnet gross debt (% of GDP)		
	2010	2020	2025	2010	2020	2025	2010	2020	2025	2010	2020	2025	2010	2020	2025
Euro area	10.3	8.0	6.3	20.8	22.0	21.9	-0.3	1.8	1.7	-6.3	-7.0	-3.1	85.7	98.5	88.5
European Union	10.1	7.2	6.0	20.9	22.1	22.1	0.6	2.4	2.4	-6.0	-6.7	-3.1	80.6	91.3	82.0
China	:	5.6	5.1	46.5	42.3	38.9	3.9	1.6	3.7	-0.4	-9.6	-7.2	33.3	69.0	98.6
United States	9.6	8.1	4.3	18.7	21.4	21.6	-2.9	-2.8	-3.8	-11.0	-14.1	-7.1	95.6	132.5	124.4
India	:	8.7	5.0	39.8	28.9	34.9	-2.9	0.9	-0.7	-8.8	-12.9	-7.4	67.7	88.4	84.3
Japan	5.1	2.8	2.5	22.6	25.2	28.1	3.8	3.0	4.9	-9.1	-9.1	-0.7	205.9	258.4	204.8
Russia	7.4	5.8	2.2	20.7	23.5	25.9	4.1	2.4	1.5	-3.2	-4.0	-3.9	10.1	19.2	16.6
Brazil	8.0	13.8	6.0	21.8	16.1	17.1	-3.9	-1.7	-2.9	-3.6	-11.6	-7.4	62.4	96.0	93.3
Indonesia	7.1	7.1	4.9	32.9	32.3	30.6	0.7	-0.4	-0.1	-1.2	-6.1	-2.9	26.4	39.7	40.9
United Kingdom	7.9	4.6	4.9	16.1	17.6	18.8	-2.8	-2.9	-3.0	-9.2	-13.2	-5.3	75.9	105.8	102.1
Türkiye	11.0	13.1	8.3	28.5	34.2	31.7	-5.7	-4.2	-1.9	-3.0	-4.6	-2.8	39.2	38.7	23.7
Mexico	5.3	4.4	2.6	23.3	20.2	22.6	-0.3	2.4	-0.5	-3.8	-4.3	-4.9	40.2	58.5	61.7
Korea	3.7	4.0	2.8	32.8	31.5	28.9	2.3	4.4	6.5	1.6	-2.1	-2.3	28.3	45.9	52.4
Canada	8.2	9.7	6.9	23.5	22.7	23.2	-3.6	-2.0	-0.9	-4.7	-10.9	-1.7	84.0	118.1	113.6
Saudi Arabia	5.5	7.7	3.2	30.9	23.3	31.3	14.1	-3.3	-2.6	4.4	-10.2	-5.8	8.4	29.7	31.8
Australia	5.2	6.5	4.2	26.3	22.5	24.6	-3.7	1.7	-2.6	-5.1	-8.7	-2.9	20.4	57.1	51.9
Argentina	7.8	11.6	7.4	17.7	14.4	13.1	-0.4	0.7	-1.1	-1.4	-8.7	-0.2	43.5	103.8	80.1
South Africa	24.9	29.2	32.4	17.6	12.3	13.9	-1.3	2.0	-0.5	-4.5	-9.6	-5.6	31.2	68.9	78.4

Source: IMF World Economic Outlook Database, October 2025, except for Euro area and European Union data for population, inflation, and unemployment rate which are sourced from AMECO (updated on 17 November 2025) and own calculations.

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