



EUROPEAN CENTRAL BANK

EUROSYSTEM

Financial integration and structure in the euro area

ECB Committee on Financial Integration

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Preface

This is the fourth edition of the biennial report published by the European Central Bank (ECB) on financial integration and structure in the euro area (FISEA). As detailed in the first edition, which was released in March 2020, the report focuses on structural developments in the financial system of the euro area and, in some cases, of the European Union (EU), as well as on related policy issues.¹

It covers (i) developments in financial integration across euro area countries, (ii) changes in financial structure (the mix of financial markets and intermediaries), and (iii) financial development or modernisation (through innovations in the financial system, for example). The preface to the 2020 report defined these three concepts and explained how they relate to Eurosystem tasks and functions.

This report focuses on issues that are relevant for policy discussions on the European banking union, the European capital markets union, the European savings and investments union and the financial aspects of deepening Economic and Monetary Union.

The report is divided into two main chapters.

The first chapter provides analytical material, with a focus on the main trends in financial integration, structure and development, based on a review of the standard set of ECB indicators on financial integration and structure. The indicators and their descriptions are included in an [online statistical annex](#).

The second chapter identifies policy priorities in the light of ongoing policy debates.

The report also includes boxes that examine the following six topics in greater depth.

- Integrated supervision as a pillar of European capital markets
- A harmonised tax area within the EU?
- Euro area household savings allocation and the role of taxation
- Exploring the investor landscape for venture capital
- The role of the Eurosystem in the scaling-up of a tokenised financial ecosystem
- Closing the gap? Gauging the development and integration of Europe's capital markets

The cut-off date for data used in this edition of the report was **9 April 2026**.

¹ [Financial Integration and Structure in the Euro Area](#), ECB, March 2020.

Executive summary

The euro area has seen significant progress in financial integration since late 2022, with several indicators surpassing the historical averages calculated over the period from the start of the Economic and Monetary Union (EMU) to today. This development is reflected in both price-based and quantity-based indicators, which show broad advances across bond, equity and banking markets. The improvement has been driven by key factors including a reduction in the risk premia associated with potential euro area disintegration and EU-level policy initiatives such as the Next Generation EU (NGEU) programme.

While financial integration has strengthened, external financing flows have weakened due to rising borrowing costs and cautious corporate sentiment. Companies, households and governments have increasingly relied on deleveraging and internal funds or preferred safer, short-term debt instruments for their financing. Nonetheless, cross-border intra-euro area financing providers have played a larger role in capital markets, showcasing enhanced intra-euro area integration.

The prominence and role of non-bank financial intermediaries (NBFIs) – specifically investment funds and insurers – in financing the real economy has grown further and has facilitated cross-border risk-sharing. Increased interconnectedness between banks and NBFIs via loan and investment fund share exposures has further diversified the financial system.

The quality and resilience of financial integration have improved. This is particularly true of debt markets, which have benefited from stronger cross-border growth compared with equities. By contrast, equity market integration has declined since 2022, with intra-euro area foreign direct investment dropping to historically low levels. These trends highlight the need for policies that address structural barriers to equity market integration while preserving the resilience of cross-border financing mechanisms.

The European Commission launched the savings and investments union (SIU) initiative in March 2025 with a view to reinvigorating policy efforts to address long-standing inefficiencies in the EU's financial system. Building on the foundation laid by the capital markets union, the SIU initiative aims to unlock the EU's economic potential by channelling financial savings more effectively into productive investments. Despite the EU's economic promise, suboptimal allocation of savings to investments, driven by structural barriers and fragmented markets, has hindered growth and competitiveness. The SIU therefore sets out a road map to transform the financial landscape for institutions, citizens and businesses.

The report goes on to examine selected topics that relate to the SIU priority areas: supervision of financial markets, taxation, retail participation in equity markets, pension systems, the role of private markets (including venture capital) and post-trading infrastructure. These priorities are interconnected and each contributes to the broader goal of fostering economic growth and increasing wealth across the EU.

Financial supervision in the EU is fragmented across Member States, resulting in material differences in supervisory practices and enforcement outcomes. This makes it harder for market participants to carry out cross-border activities, creates a non-level playing field and increases the risk of regulatory arbitrage. The complexities of the current supervisory set-up support the case for targeted reforms to centralise supervision of large cross-border firms and inherently cross-border financial sectors at EU level, while acknowledging market specificities. Integrated supervision of EU capital markets and further progress on supervisory convergence are necessary steps to removing existing barriers to capital market integration, which should go hand in hand with the adoption of EU regulations.

More harmonised corporate tax rules across the EU could facilitate cross-border business activities, including those carried out by financial institutions. The Commission has made proposals to increase harmonisation of corporate taxation, but progress has been slow. Complex and inefficient procedures for refunding withholding taxes paid abroad act as a barrier to cross-border saving and investing within the EU. While the EU's Faster and Safer Tax Relief of Excess Withholding Taxes (FASTER) Directive² will help to streamline and harmonise withholding tax relief procedures, cross-border investment within the EU remains more costly than domestic investment, which hinders capital market integration and the efficient allocation of savings across borders.

Euro area households hold a relatively large share of their financial assets in the form of bank deposits, while listed equity plays a smaller role. Holding a higher share of euro area equity could generate higher returns for households and improve financing opportunities for enterprises, thereby supporting the euro area economy as a whole. The introduction of savings and investment accounts, which financial institutions offer to households via government programmes, could encourage households to participate more in equity and other capital markets. Capital gains tax relief for these accounts could support a shift toward capital markets, but evidence suggests the impact may be modest due to households' strong preference for deposits, which is driven by factors such as financial literacy, access to information and pension systems. This shows it is essential to consider not only tax rates but also the method of taxation when designing effective tax incentives.

Most state pensions in Europe operate on a pay-as-you-go basis without accumulating capital market assets. By contrast, occupational and private pensions are pre-funded, investing significant resources in – and thereby contributing to – the development of capital markets. Channelling pension-related savings into EU capital markets would be a vital way of addressing demographic and strategic challenges. On 20 November 2025 the Commission adopted its supplementary pensions package, which sets out targeted measures to strengthen supplementary pensions and improve transparency and efficiency in pension systems. The Commission has emphasised that these measures are intended to complement, not replace, public pensions, which remain the foundation of pension systems in all Member States.

² [Council Directive \(EU\) 2025/50 of 10 December 2024 on faster and safer relief of excess withholding taxes](#) (OJ L, 2025/50, 10.1.2025).

Private markets focus on more innovative sectors and tend to finance companies that lack the scale to issue securities in public equity or corporate bond markets. Corporates financed via private markets generally have higher levels of productivity but worse risk metrics. Risk monitoring is therefore important, and transparency in private markets should be improved. At the same time, further growth of private markets could benefit the financing of small and medium-sized enterprises, thereby helping to advance the objectives of the SIU. The venture capital investor landscape in Europe is dominated by public institutions. Increasing the involvement of institutional investors would make it possible for larger venture capital funds to finance the needs of late-stage companies that otherwise seek funding outside the EU. Overall, the broader innovation financing ecosystem in Europe would benefit from policies addressing fragmentation within the Single Market and improving exit opportunities for firms in Europe.

Substantial efforts have been made to improve the integration of the post-trading landscape in the EU. However, persistent fragmentation makes European financial markets a less attractive prospect for investors. On 4 December 2025 the Commission adopted its market integration package, which includes important measures to deepen integration in the post-trade landscape. The persistent fragmentation of issuance practices, the regulatory framework, national laws and tax rules must be addressed in order to fully integrate the EU securities issuance and post-trade landscape.

1 Financial integration and structure developments

1.1 Financial integration developments

Financial integration, as measured by both price-based and quantity-based composite indicators, increased significantly between the end of 2022 and the fourth quarter of 2025,³ reaching levels well above the average since the start of Economic and Monetary Union (Chart 1.1). Price-based indicators, in particular, showed a clear and substantial increase over this period, with this trend being even more pronounced in the sub-indices. Importantly, the improvement was broadly uniform across bond, equity and banking markets, suggesting that equity market valuations did not play a dominant role (Statistical Annex (SA), Financial Integration (FI), Chart 1, S1-S4).⁴ However, some heterogeneity remains, as the money market sub-index – covering the unsecured segment only – exhibited some volatility and did not follow the same upward trend.

Quantity-based measures also increased significantly over the review period, confirming the substantial improvements in financial integration. The reduction in risk premia associated with euro area disintegration was a key driver of this development and helped sustain it (Chart 1.2).

The Next Generation EU (NGEU) programme has the potential to substantially improve economic convergence and thus support market integration.⁵ While the NGEU programme has significant potential to enable a long-term shift toward deeper convergence, its ultimate impact hinges on the effective and timely execution of national recovery and resilience plans, many of which have been hampered by widespread delays.

³ The review period in this chapter covers developments from the end of 2022 to the end of 2025.

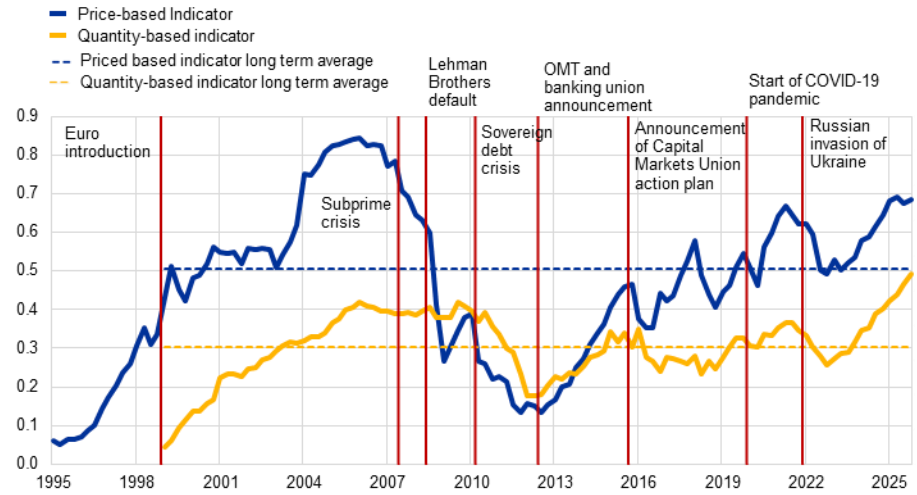
⁴ Charts labelled SA, Financial Integration (FI) or Financial Structure (FS), Chart X can be found in the [Statistical Annex](#) and the underlying [Financial Integration or Financial Structure indicators](#).

⁵ Bańkowski, K. et al., “[Four years into NextGenerationEU: what impact on the euro area economy?](#)”, *Occasional Paper Series*, No 362, ECB, December 2024.

Chart 1.1

Price-based and quantity-based financial integration composite indicators

(Q1 1995-Q4 2025; price-based indicator, quantity-based indicator)

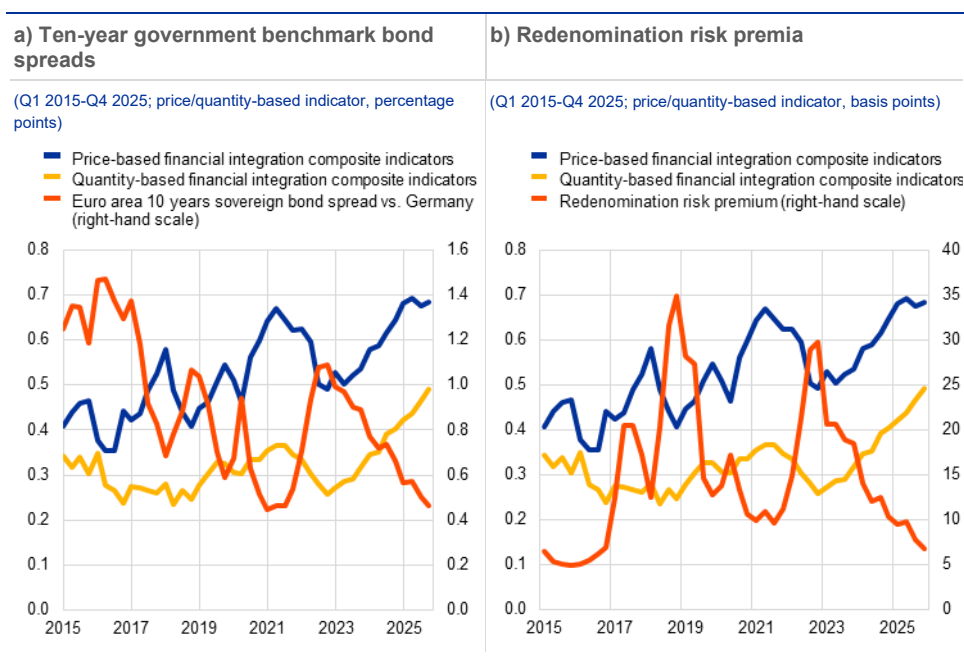


Source: ECB and ECB calculations.

Notes: The price-based composite indicator aggregates ten indicators for money, bond, equity and retail banking markets. The quantity-based composite indicator aggregates five indicators for the same market segments except retail banking. The indicators are bounded between zero (full fragmentation) and one (full integration). Increases in the indicators signal greater financial integration. From January 2018 the behaviour of the price-based indicator may have changed due to the transition from the euro overnight index average (EONIA) to the euro short-term rate (€STR) in the money market component. OMT stands for Outright Monetary Transactions. For a detailed description of the indicators and their input data, see the [Statistical Annex](#) to this report and Hoffmann, P., Kremer, M. and Zaharia, S., "Financial integration in Europe through the lens of composite indicators", *Working Paper Series*, No 2319, ECB, September 2019.

Chart 1.2

Composite indicators and standard deviation of risk premia



Sources: LSEG, ICE and ECB, Thomson Reuters and Credit Market Analysis Ltd (CMA) and ECB calculations.
Notes: For a detailed description of the composite indicators and their input data, see the *Statistical Annex* to this report and Hoffmann, P., Kremer, M. and Zaharia, S., “Financial integration in Europe through the lens of composite indicators”, *Working Paper Series*, No 2319, ECB, September 2019. Panel a: ten-year government benchmark bonds do not exist for Estonia, Latvia or Luxembourg. Panel b: redenomination risk premia are estimated as the differences between US dollar-denominated credit default swap premia under the 2014 definitions of the International Swaps and Derivatives Association (2014 ISDA) and credit default swap premia under the 2003 definitions (2003 ISDA), also known as the ISDA basis. The premium is expressed in basis points of the notional amount of protection bought. The 2014 ISDA documentation includes default of the sovereign and currency redenomination as triggering credit events, while the 2003 ISDA documentation only includes default. Both have a maturity of five years.

1.1.1 Money markets

The integration of money markets deepened further across all segments during the review period.

Cross-border money market activity increased significantly, driven by shifts in lending and borrowing dynamics. The geographical distribution of secured and unsecured transactions demonstrated a sharp rise in trades involving non-domestic counterparties in 2025, while domestic trading activity saw a notable decline (Chart 1.3, panel a).

Structural factors significantly bolstered cross-border secured lending.

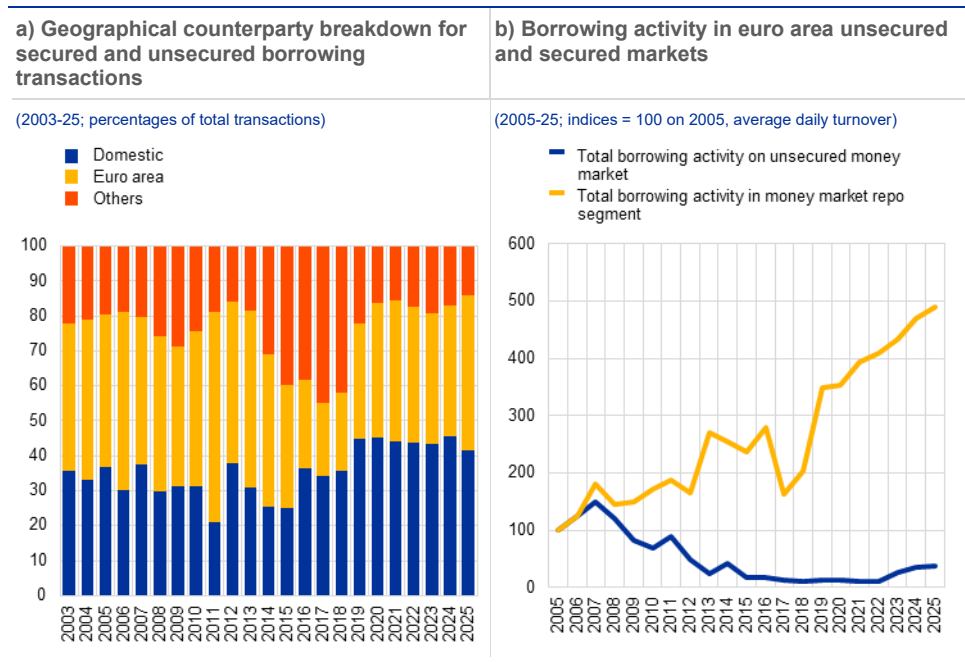
Improved sovereign creditworthiness, stronger banking profiles and the widespread adoption of central counterparties (CCPs) were key drivers of cross-border secured lending. As the creditworthiness of euro area sovereigns increased, their government securities gained broader acceptance as collateral, encouraging more repurchase agreements (repos) with non-domestic counterparties. Similarly, the strengthened credit profiles of European banks reduced counterparty risk and boosted confidence in cross-border transactions. The growing reliance on CCPs further facilitated this shift by mitigating bilateral credit risk, improving balance sheet efficiency and attracting non-domestic participants. Together, these developments spurred a transition from domestic bilateral markets to cross-border, centrally cleared platforms.

Liquidity needs and redistribution drove cross-border borrowing. Following the final repayments of the third series of targeted longer-term refinancing operations by the end of 2024, the uneven distribution of excess liquidity and market funding adjustments prompted institutions to seek funding beyond domestic markets. As some domestic liquidity buffers diminished, institutions also faced challenges in meeting regulatory requirements such as the liquidity coverage ratio. This led to a moderate increase in demand for secured funding via repos and a renewed reliance on unsecured borrowing to address residual liquidity needs (Chart 1.3, panel b). The resulting cross-border redistribution of liquidity underscored the growing importance of market-based mechanisms in an environment of declining excess liquidity.

An expanded collateral supply sustained low rate dispersion. The narrowing of repo rate dispersion observed in 2023 persisted, reflecting a more integrated and efficient market structure. This was supported by an expanded supply of eligible collateral, driven by higher euro area sovereign bond issuance and the Eurosystem’s reduced market footprint. Structural changes, including quantitative tightening and the run-off of asset purchase programme and pandemic emergency purchase programme portfolios, further boosted the availability of high-quality collateral. As the Eurosystem’s holdings declined, the free float (i.e. the portion of bonds available for trading) of sovereign bonds expanded, facilitating higher turnover and maintaining low rate dispersion in repo markets, even for transactions involving collateral from different euro area countries.

Chart 1.3

Trends in cross-exposures among sectors of the euro area financial system, by instrument type and holder sector



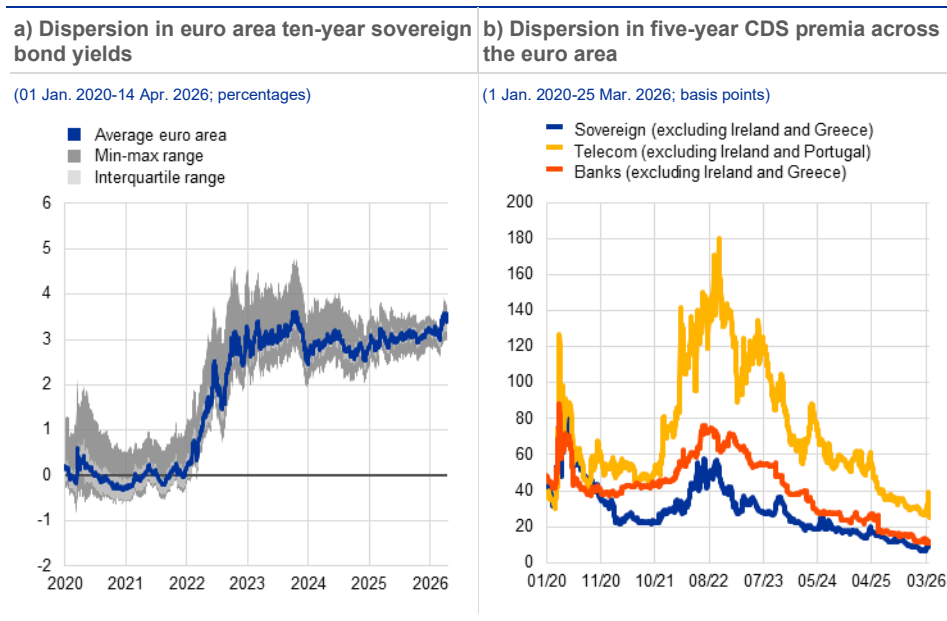
Source: ECB (MMS until end-2015, then MMSR).
 Notes: Data from 2016 are taken from the MMSR for those reporting banks that were also part of the Money Market Survey panel.
 Panel a: Figures are shown as a percentage of total transactions for the second quarter for each year, except for 2016 when third quarter data were taken following the transition to MMSR data.

1.1.2 Securities markets

The dispersion of euro area ten-year sovereign bond yields stabilised during the review period (Chart 1.4, panel a). Although dispersion widened in 2022 amid policy rate hikes and repricing of sovereign risk, it subsequently stabilised, with the recent range remaining below its long-term historical average (SA, FI, Chart 11, S18). This stabilisation was supported by lower volatility, improved risk sentiment and stronger growth prospects – particularly in non-core countries, where improved fundamentals contributed to several credit-rating upgrades. In addition, upward pressure on German sovereign bond yields amid fiscal expansion contributed to narrower sovereign bond yield spreads, which are now close to multi-year lows. During the war in the Middle East, euro area sovereign bond yields have come under some upward pressures, though this impact has been relatively contained.

Credit default swap (CDS) premia also normalised, declining to levels below those prevailing before Russia’s invasion of Ukraine (Chart 1.4, panel b). The compression in CDS premia was supported by historically low market volatility across asset classes, alongside reduced uncertainty around monetary policy in the euro area as inflation declined towards target and amid well-anchored market-based inflation expectations.

Chart 1.4
Risk premia developments



Sources: Refinitiv, ECB (FM) and ECB calculations.

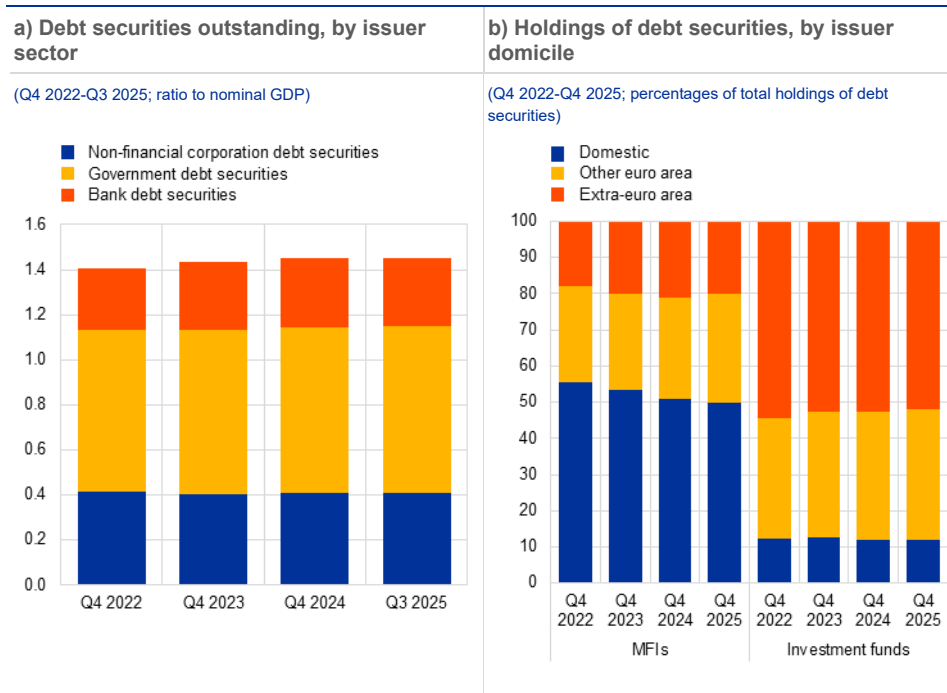
Notes: Panel a: the shaded areas represent the minimum-maximum range and the interquartile range of benchmark bond yields for the euro area countries. The yields for Estonia, Greece, Cyprus, Latvia, Lithuania, Malta, Slovenia, Slovakia, Croatia and Bulgaria are excluded. Panel b: The indicators are simple standard deviations of the country averages. The sovereign and bank CDS premia data do not include Ireland and Greece, given the very high premia for these countries. Ireland and Portugal are excluded from the telecommunications data owing to the very high CDS premia of their telecommunications companies. "Sovereigns" include Germany, Spain, France, Italy, the Netherlands, Austria and Portugal. "Banks" include ABN AMRO (NL), Banca Monte dei Paschi di Siena (IT), Banca Popolare di Milano (IT), Banco Comercial Português (PT), Banco Sabadell (ES), Novo Banco SA (PT), Banco Santander Central Hispano (ES), Erste Bank der österreichischen Sparkassen (AT), HypoVereinbank (DE), BNP Paribas (FR), Deutsche Bank (DE), Commerzbank (DE), Crédit Agricole (FR), Dexia Group (BE), Fortis NL (NL), Intesa Sanpaolo SPA (IT), Mediobanca (IT), Natixis (FR), Nordea Bank (FI), Société Générale (FR) and UniCredito Italiano (IT). "Telecoms" include Deutsche Telekom (DE), Orange (FR), Hellenic Telecommunications Organization (GR), KPN (NL), Telecom Italia (IT), Telefónica (ES) and Telekom Austria (AT).

The composition of debt securities evolved as the total stock increased (Chart 1.5, panel a). Government-issued securities outstanding recorded a slight decline, bank-issued securities saw a moderate increase, and those issued by the non-financial corporation (NFC) sector registered a minor reduction.

The share of monetary financial institution (MFI) bond holdings that are non-domestic reached its highest level since 2010 (Chart 1.5, panel b). As central bank balance sheet normalisation progressed and the Eurosystem reduced its footprint in euro area bond markets, a larger share of net issuance had to be absorbed by alternative investors. Against this backdrop, MFIs stepped in and increased their holdings of euro area sovereign bonds and, interestingly, also the share of their non-domestic sovereign bond holdings. The improving fundamentals of non-core countries in particular, which was reflected in historically narrow sovereign bond yield spreads, may have sustained this development. In the specific case of banks, the share of non-domestic European government bond holdings within their buffers of high-quality liquid assets increased, along with holdings of non-domestic debt more generally. This development is helping to reduce the sovereign-bank nexus, which is in turn fostering the smooth transmission of monetary policy in the euro area.

Investment funds similarly increased their share of non-domestic (other euro area) debt holdings (Chart 1.5, panel b). Similar drivers to those mentioned in the previous paragraph were likely at play, such as the improved macroeconomic outlook for non-core countries, reduced fragmentation risk and stable market functioning.

Chart 1.5
Debt securities markets



Source: ECB.
 Notes: Panel b: MFIs stands for monetary financial institutions. Debt securities exclude shares and include money market paper held by investment funds located in the euro area. A complete list of investment funds is available from the ECB website.

1.1.3 Banking markets

Banks remain the largest suppliers of loans to the euro area economy, accounting for approximately 43% of the total stock of loans outstanding as of the third quarter of 2025 (SA, Chart 5, ST51).⁶ Both retail and interbank loans declined relative to nominal GDP over the review period (**Chart 1.6**). Interbank lending stabilised at around €12 trillion from 2021, with notable increases in both intra-euro area cross-border and extra-euro area interbank lending. Retail bank lending grew by €0.3 trillion, up from €14.6 trillion at the end of 2022, with intra-euro area cross-border and extra-euro area loans as a share of total retail bank loans increasing by 0.7 and 0.5 percentage points to 7.8% and 10.7% respectively by the end of 2024.⁷ Outstanding bank loans to governments have remained stable at around €1.1 trillion for the past decade, reflecting the relatively minor role of bank lending in government financing as governments primarily rely on debt securities

⁶ NFCs (often through intercompany loans) and other financial intermediaries are the second and third largest providers of loans to the euro area economy. Both sectors have increased their share of loan provision, offsetting a decline in the role of loan providers from the rest of the world.

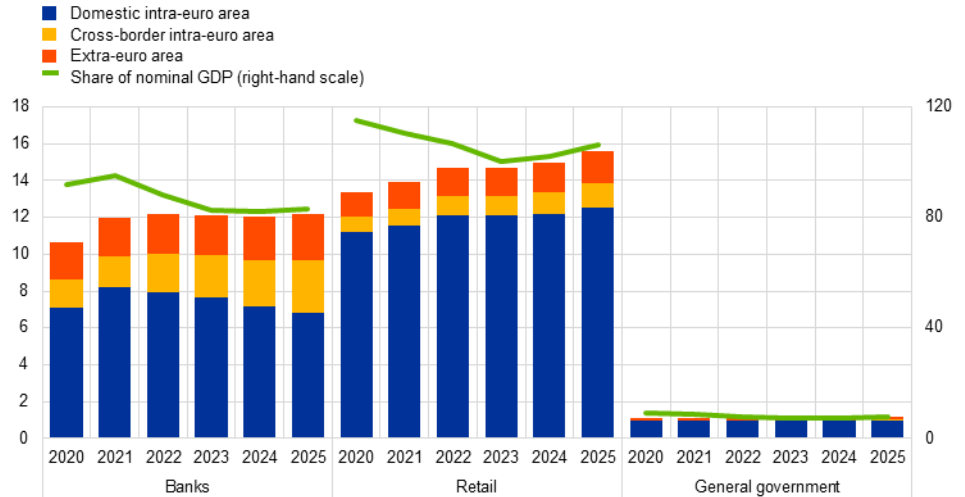
⁷ The direct cross-border lending approach, where a lender based in euro area country A lends money to a borrower domiciled in euro area country B, is a stronger force for banking market integration in the euro area than the alternative indirect lending approach, where a banking group headquartered in euro area country A lends money – via a branch or a subsidiary located in euro area country B – to a borrower residing in euro area country B. See the box entitled “[Intra-euro area cross-border bank lending: a boost to banking market integration?](#)”, *Financial Integration and Structure in the Euro Area*, ECB, June 2024.

issuance. Cross-border extra-euro area bank loans to governments continue to account for a larger share than cross-border intra-euro area loans.

Chart 1.6

Stock of bank loans in the euro area, by counterparty type and domicile

(2020-25; left-hand scale: € trillions, right-hand scale: percentages)

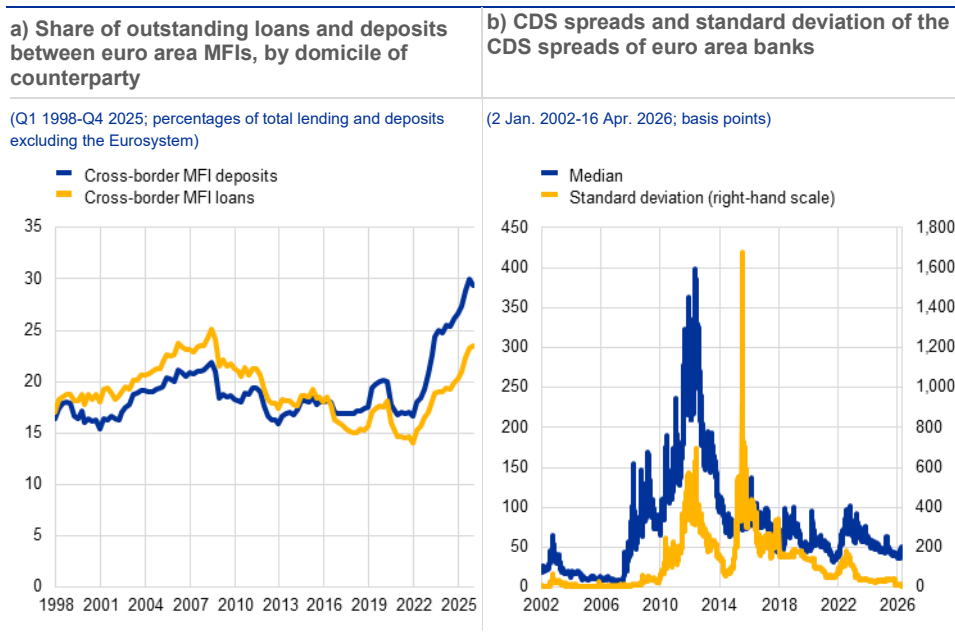


Sources: ECB (BSI, MNA) and ECB calculations.
Note: The figures shown correspond to end-of-year data.

Cross-border interbank lending picked up significantly after the start of the monetary policy tightening cycle, reflecting the redistribution of shrinking liquidity and the increased cost of funding that typically accompanies tighter monetary conditions. The share of cross-border lending in the total outstanding interbank loans in the euro area rose substantially from around 14% at the beginning of 2022 to 23% at the end of 2025 (Chart 1.7, panel a). Meanwhile, the share of bank deposits from non-domestic euro area banks also increased, accounting for 29% of all MFI deposits in 2025. These developments reveal that repo and unsecured money markets are becoming more active again, as the ECB normalises its balance sheet and excess liquidity is redistributed across countries. Overall, the activities suggest stronger financial integration between euro area MFIs and less fragmentation in interbank markets, which is facilitated by the increasing size of this market.

Chart 1.7

Euro area interbank lending, by domicile of counterparty, and CDS spreads of euro area banks



Sources: Bloomberg Finance L.P., LSEG and ICE, Credit Market Analysis Ltd. (CMA) and ECB calculations.
 Notes: Panel a: underlying data refer to the national aggregated MFI balance sheet data reported on a non-consolidated basis to the ECB at monthly and quarterly frequencies. These data cover the MFI sector excluding the Eurosystem and include data on money market funds (MMFs). Consequently, as MMFs typically invest in inter-MFI deposits and short-term securities, the indicators providing data for these assets are, to some extent, affected by MMFs' balance sheet items. Balance sheet positions with foreign counterparties include those with foreign branches and subsidiaries. Underlying data include the UK figures up to 31 December 2019. Panel b: based on CDS data available for banks in the EONIA panel. A rolling window of 60 days is applied in calculating standard deviation.

The share of cross-border lending in total bank lending to non-MFIs increased, albeit at a moderate pace (SA, FI, Chart 17). Banks increased the share of loans extended to corporates and households in euro area countries outside the bank's domestic market. This trend started in 2019 and continued in line with previous years. Meanwhile, the share of domestic lending declined. While this indicates that domestic borders are gradually becoming more permeable, domestic lending still accounts for more than 80% of total loan volumes, while only around 8% of loans are extended to counterparties in other euro area countries.

Loan growth has varied significantly across euro area countries since the COVID-19 pandemic and remains mixed (SA, FI, Chart 22). While banks in some countries only started to expand their loan portfolios again in late 2025, following years of negative growth, others recorded substantial growth throughout the post-pandemic period. As such, loan growth rates ranged between -0.6% and 11.6% in February 2026. This stark dispersion highlights variation in economic growth trajectories, differences in loan demand and supply, and uneven monetary policy pass-through across euro area countries.

The range of lending rates to households is currently rather narrow by historical standards, as euro area households have become more resilient (SA, FI, Chart 28). Consumer credit loans, in particular, are now priced more uniformly, a trend that has persisted for the past decade. However, differences in fixed-rate mortgage rates have increased again slightly since the start of the easing cycle,

which is likely due to differences in the exact length of the interest rate fixation periods and benchmark rates. Overall, the increased resilience of euro area households, underpinned by lower debt/disposable income ratios, lower unemployment rates and high savings, and competition among banks have contributed to the convergence in loan pricing.

The dispersion of euro area bank deposit rates has increased substantially, which demonstrates that deposit markets remain highly fragmented (SA, FI, Chart 25). While regulatory factors (such as the Livret A product in France) and deposit book maturity structures play a role, differences in deposit rates also reflect the degree of deposit competition in a given country and banks' own funding positions. For example, banks that rely to a larger extent on market-based funding have increased their deposit rates more, as deposit funding has become substantially cheaper than market-based financing with the exit from the negative interest rate environment. By contrast, some banks do not seem to compete in deposit markets at all given their ample funding liquidity positions, as evidenced by the lowest quartile of the rate distribution being far below levels seen during comparable interest rate periods. The variation in deposit rates therefore remains linked to an uneven distribution of deposit funding across countries. It also highlights that cross-border deposit-taking is still very unusual given the high degree of fragmentation in this market.

Cross-country dispersion in bank CDS spreads has declined markedly, reflecting a general improvement and convergence in euro area banking sector fundamentals (Chart 1.7, panel b). While the median CDS spread of euro area banks ranged between 200 and 400 basis points in 2012, it has steadily declined to around 50 basis points for much of the post-pandemic period. The dispersion across banks mirrors this trend and is now at historical lows. These developments can be attributed to improved and converging fundamentals for euro area banks, owing to enhanced regulation, increased resilience (e.g. in terms of capital headroom and non-performing loan (NPL) ratios) and the highest profitability recorded since the global financial crisis.

1.2 Financial structure and development

1.2.1 The financing requirements of the euro area economy

Due to ongoing economic uncertainties, tighter monetary policy and rising borrowing costs, the euro area economy has struggled to attract external funding since 2023 (SA, FS, Chart 3, ST48). Total external financing declined significantly across all sectors – NFCs, households and governments (Chart 1.8). Firms and households increasingly relied on internal resources, while governments moderated their borrowing activity amid fiscal consolidation efforts.

External financing for NFCs remained weak throughout the review period, influenced by cautious corporate strategies, subdued investment activity and

challenging macroeconomic conditions. Declining business margins, tight credit standards and elevated interest rates limited financing opportunities, prompting firms to focus on deleveraging and internal funds. Debt issuance was modest, with firms shifting toward safer, short-term debt instruments owing to elevated borrowing costs and cautious investor sentiment. Borrowing from both MFIs and non-MFIs was subdued, as tight credit conditions and reduced investment opportunities led firms to scale back borrowing and rely more heavily on internal resources.

Equity issuance, both listed and unlisted, declined amid valuation losses, weak corporate profitability and low investor sentiment. Initial public offering activity was particularly weak, while intragroup equity flows also contracted. Trade credit flows showed resilience but moderated overall, reflecting weaker demand and supply chain disruptions. In response, firms increasingly utilised cash buffers to manage working capital needs, underscoring a preference for internal financing strategies against an uncertain economic backdrop.

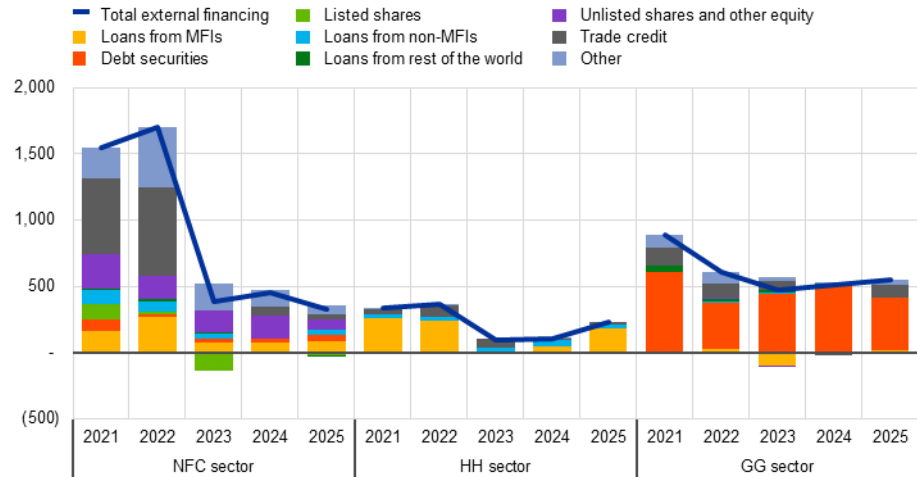
Household financing requirements declined over the review period, as elevated interest rates and cautious consumer sentiment curbed borrowing activity. Household borrowing growth slowed significantly as high interest rates discouraged borrowing, while declining inflation supported real income growth. Fiscal consolidation and persistent uncertainty reinforced cautious household behaviour, limiting external financing demand.

The general government sector moderated borrowing activity during the review period, reflecting fiscal consolidation efforts and robust investor demand for euro-denominated debt securities. Fiscal consolidation, moderated investment growth and persistent demand for euro-denominated debt securities from external investors were the main drivers shaping government financing trends. Governments continued to issue debt securities, benefiting from strong investor demand for safe assets amid global uncertainty. Increased yields made euro area debt attractive to non-euro area investors. Government net borrowing as a percentage of GDP steadily declined, driven by slower growth in investment and revenue. Investments financed under the NGEU programme underpinned elevated government investment growth.

Chart 1.8

External financing flows of euro area NFCs, households and general governments, by instrument

(Q4 2021-Q4 2025; € billions)



Source: ECB (QSA) and ECB calculations.

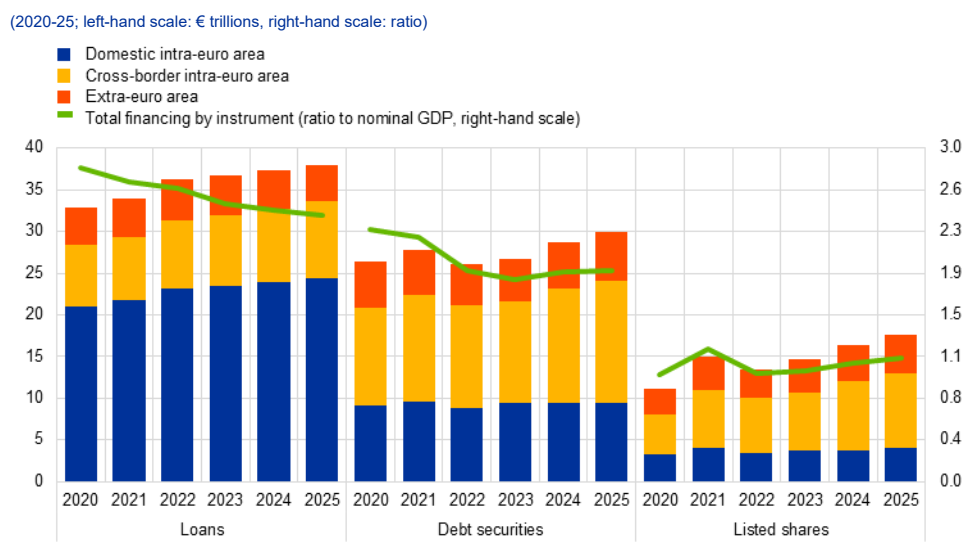
Notes: MFIs stands for monetary financial institutions. Non-MFIs include other financial institutions as well as insurance corporations and pension funds. "Other" is the difference between the total and the instruments included in the figure and includes intercompany loans and the rebalancing between non-financial and financial accounts data. Figures shown represent the sum of flows over the last four quarters at the end of the fourth quarter for 2020-24, at the end of the fourth quarter of 2025 for all sectors except general government (GG), and at the end of the third quarter for 2025 for GG. NFC stands for non-financial corporation; HH stands for household; GG stands for general government.

Non-domestic intra- and extra-euro area financing providers played an increasingly prominent role during the review period, particularly for marketable debt instruments (Chart 1.9).

Cross-border intra-euro area providers expanded their share in financing both debt securities and listed shares, partially offsetting a decline in the role of domestic providers. By contrast, the relative shares of domestic, cross-border intra-euro area and extra-euro area providers in loan financing remained broadly stable, indicating that changes in the financing landscape are more pronounced for capital market instruments than for traditional loan-based financing.

Chart 1.9

Euro area external financing, by instrument and domicile of financing provider



Sources: ECB (QSA, MNA) and ECB calculations.
 Notes: The figures shown correspond to end-of-year data, except for the domestic intra-euro area category, which refers to the second quarter of 2025.

1.2.2 Financial sector developments

The financial assets of the euro area’s financial sector declined slightly as a share of nominal GDP from 2022 to 2023 and remained broadly stable subsequently (Chart 1.10, panel a). This trend reflects the impact of the ECB’s monetary policy.⁸ Within the financial sector, the relative weight of banks, central banks and non-banks in total financial assets has undergone notable changes. Central banks have reduced their share, largely driven by quantitative tightening measures, while non-banks have increased their share. Broadly speaking, the decrease in the share of central banks has been approximately offset by the rise in the share of non-banks.

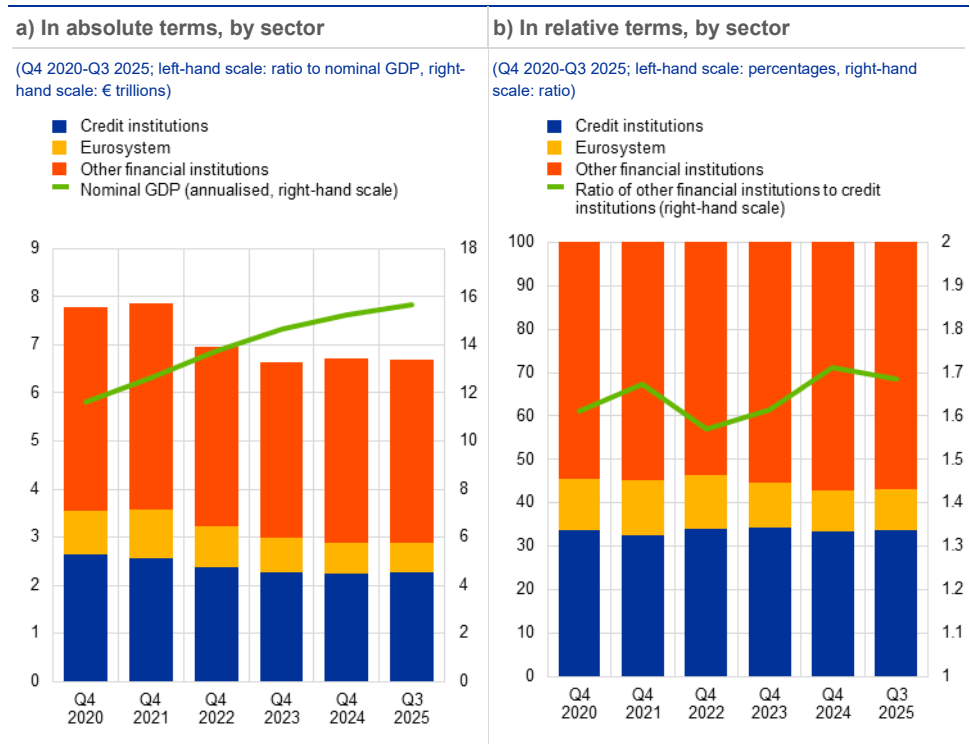
The ratio of financial assets held by other financial institutions (OFIs) to financial assets held by credit institutions has shown notable fluctuations over time (Chart 1.10, panel b, green line). A key factor driving these changes has been the rapid growth of non-bank financial intermediaries, particularly investment funds, which benefited from strong market valuation gains during 2023-24. These gains significantly boosted the size of investment fund balance sheets, increasing the share of OFIs. By contrast, the period from late 2024 into 2025 was marked by heightened market volatility and asset repricing, which reduced the financial assets of investment funds and other OFIs, while improving credit conditions and stronger loan demand supported an expansion of banks’ balance sheets. Insurance corporations and pension funds were affected more moderately, benefiting from

⁸ Between July 2022 and September 2023 the ECB raised interest rates from -50 basis points to 400 basis points. Following a nine-month holding phase the monetary policy easing cycle commenced in June 2024. Between June 2024 and June 2025 the ECB lowered its policy rates by a cumulative 200 basis points. Since June 2025 ECB policy rates have remained unchanged.

higher reinvestment yields but also facing valuation pressures that kept their asset growth comparatively subdued (see also [Chart 1.13](#)).

Chart 1.10

Total assets of the euro area financial sector



Sources: ECB (QSA, BSI, MNA, FVC), Eurostat, and ECB calculations.

1.2.3 Banking sector

The profitability of the euro area banking sector stabilised at elevated levels

(SA, FS, Chart 21, ST5). Following the normalisation of monetary policy, the profitability of euro area banks stabilised at high levels. A steep yield curve supported the interest margins of banks, while net fee and commission income followed a steady growth trajectory. Low impairment levels further bolstered profitability.

NPLs stabilised at low levels and showed mixed dynamics (SA, FS, Chart 23, ST7).

Aggregate NPL ratios remained broadly stable at low levels, albeit with notable differences across countries and asset classes. Banks in jurisdictions with historically high NPL levels continued to reduce legacy NPLs through disposals and sales. By contrast, banks in countries with historically lower NPL ratios reported net increases. At the asset class level, higher NPLs were observed for commercial real estate, small and medium-sized enterprises and consumer credit.

Evidence on banking sector consolidation highlights both progress and challenges (Chart 1.11).

Banking sector consolidation presents a mixed picture. While the number of mergers and acquisitions (M&As) has increased in recent years,

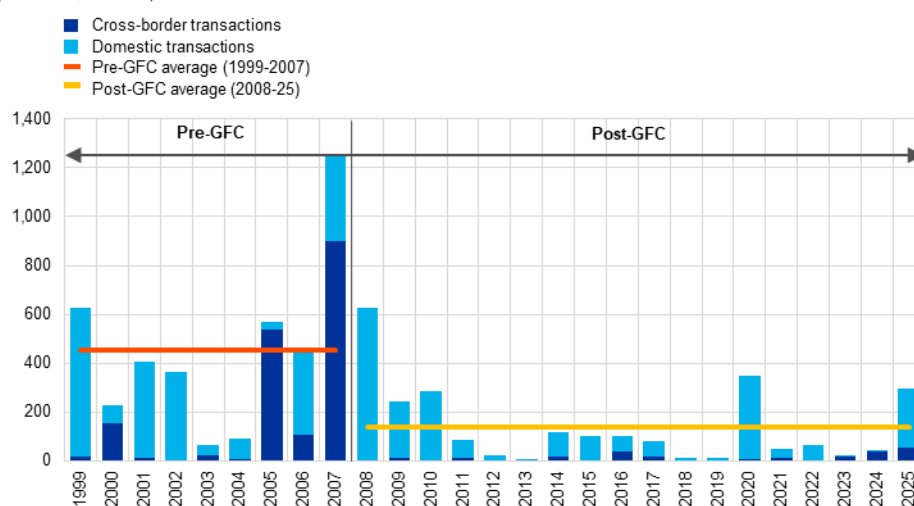
it remains slightly below the post-global financial crisis (GFC) average, with 15 deals recorded in 2025. However, the total assets of target banks have risen significantly, nearly doubling the post-GFC average. Cross-border M&A activity has been particularly significant, with target assets exceeding their post-GFC average since 2023.

Despite these developments, overall M&A activity remains subdued, as demonstrated by several failed transactions. These primarily involved domestic public takeover or exchange offers aimed at strengthening home-market positions. Many of these deals failed due to insufficient shareholder support or bidder withdrawal, often in response to regulatory or governance constraints.

Chart 1.11

Total assets of target banks in the euro area

(1999-2025; € billions)



Sources: Dealogic, Moody's, ECB (supervisory data) and ECB calculations..

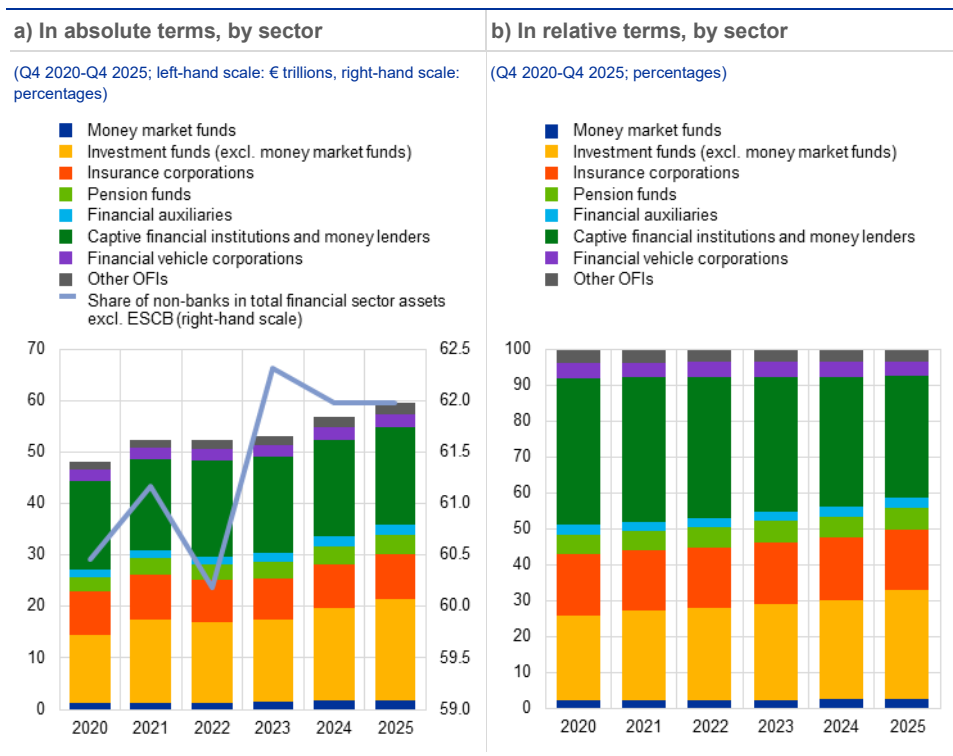
Notes: Relevant M&A transactions exclude the acquisition of assets, repurchases, privatisations, leveraged buyouts, joint ventures and restructurings. They meet the following criteria: (1) the acquired stake is above 10%, corresponding to a qualifying holding; (2) the initial stake is below or equal to 50%; and (3) the final stake is above 50%. In cases where multiple banks are involved in a deal as target and/or acquirer, at least one of the targets and/or acquirers have to be domiciled within the euro area. The transactions are reported by the year in which they were announced. The periods before and after the global financial crisis (GFC) are defined as 1999-2007 and 2008-2025 respectively.

1.2.4 Non-banking sector

The total assets of the euro area non-bank financial sector had increased to €58.7 trillion by mid-2025, up by €7 trillion or 14% since the end of 2022. This development was driven primarily by growth in the total assets of primarily investment funds, but also of insurance companies and pension funds (Chart 1.12, panel a). As a result, the size of these sectors increased relative to that of OFIs, i.e. financial auxiliaries, captive financial institutions and money lenders, financial vehicle corporations and other OFIs (Chart 1.12, panel b). Similarly, there was a slight increase in non-banks' share of total financial sector assets between 2022 and mid-2025.

Chart 1.12

Total assets of the euro area non-bank financial sector



Sources: Eurostat, ECB (QSA, BSI, IVF, PFBR, ICB) and ECB calculations.

Notes: ESCB stands for European System of Central Banks; OFIs stands for other financial institutions. The figures shown correspond to end-of-year data.

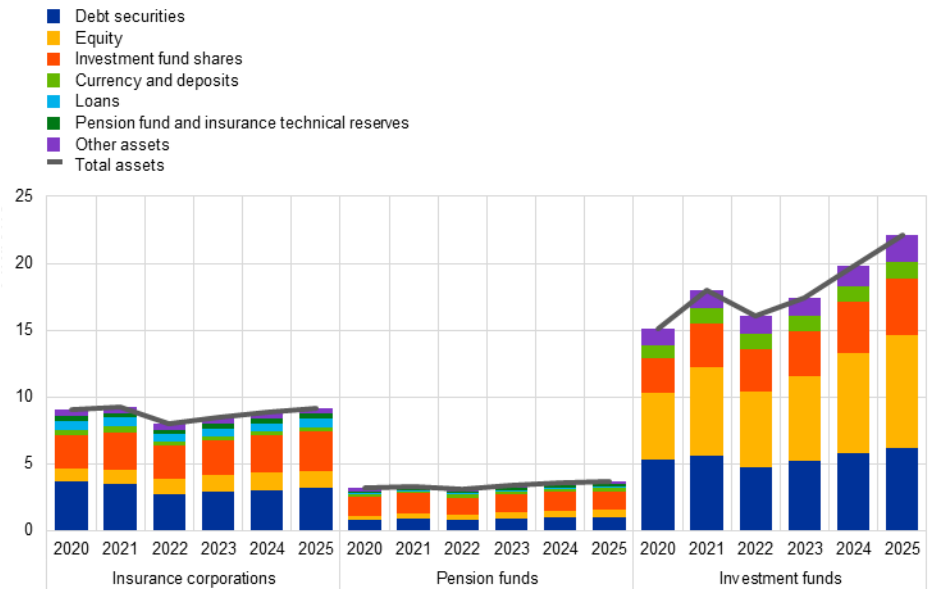
Not only did the balance sheet size of the main non-bank financial sub-sectors increase between 2020 and 2025, but its composition also changed (Chart 1.13).

The insurance corporation and pension fund and investment fund sectors each show increased equity and investment fund exposures, in part due to favourable market valuations.

Chart 1.13

Balance sheet developments in insurance corporations, pension funds and investment funds

(Q4 2020-Q4 2025; € trillions)



Source: ECB (IVF, ICB, PFBR) and ECB calculations.

Note: The figures shown correspond to end-of-year data. Loans claims are included in Currency and deposits category for the investment funds sector.

Money market funds

The total assets of money market funds (MMFs) stood at €2 trillion in the fourth quarter of 2025, an increase of 36% from the fourth quarter of 2022.

MMFs achieved record net inflows – predominantly from non-euro area investors (SA, Chart 42, ST24) – driven by a combination of rapid monetary policy tightening, structural changes in the repo market and investor demand for higher yields in a high-interest-rate environment. Additionally, strong inflows suggest that some investors opted for MMFs as a cash alternative, maintaining a wait-and-see approach in uncertain market conditions. MMF assets remained highly concentrated in Ireland, France and Luxembourg (SA, Chart 41, ST23).

Investment funds

The investment fund (IF) sector experienced substantial growth from the fourth quarter of 2022, with total assets reaching €22.1 trillion by the fourth quarter of 2025. This increase was driven by rising equity valuations and sustained inflows into bond and equity funds, alongside a rise in the value of holdings in non-euro area-issued equity, debt securities and investment fund shares (Chart 1.14, panel a). The IF sector remains concentrated in Germany, Ireland, France and Luxembourg.

The composition of the IF sector continued to evolve, with equity funds gaining prominence relative to bond and mixed funds.

By December 2025, equity, bond and mixed funds collectively accounted for 67% of total assets in the IF sector (**Chart 1.14**, panel b). Passive investment via exchange-traded funds (ETFs) also grew markedly, with ETF assets more than doubling from €1.2 trillion in December 2022 to €2.4 trillion in December 2025 (SA, Chart 39, ST30). Consequently, the share of ETFs in total IF assets increased by 3.7 percentage points to 12.0%.

Similarly, the share of “other funds” in the IF sector rose to 12.9% in September 2025, partly driven by €180 billion of growth in private equity and credit funds.

These funds provide an alternative financing source for the real economy by supporting typically riskier companies that might otherwise face difficulties in accessing bank lending or public debt and equity markets.⁹

While the growth of the IF sector supports financial integration, around half of its assets are invested outside the euro area (Chart 1.14, panel c).

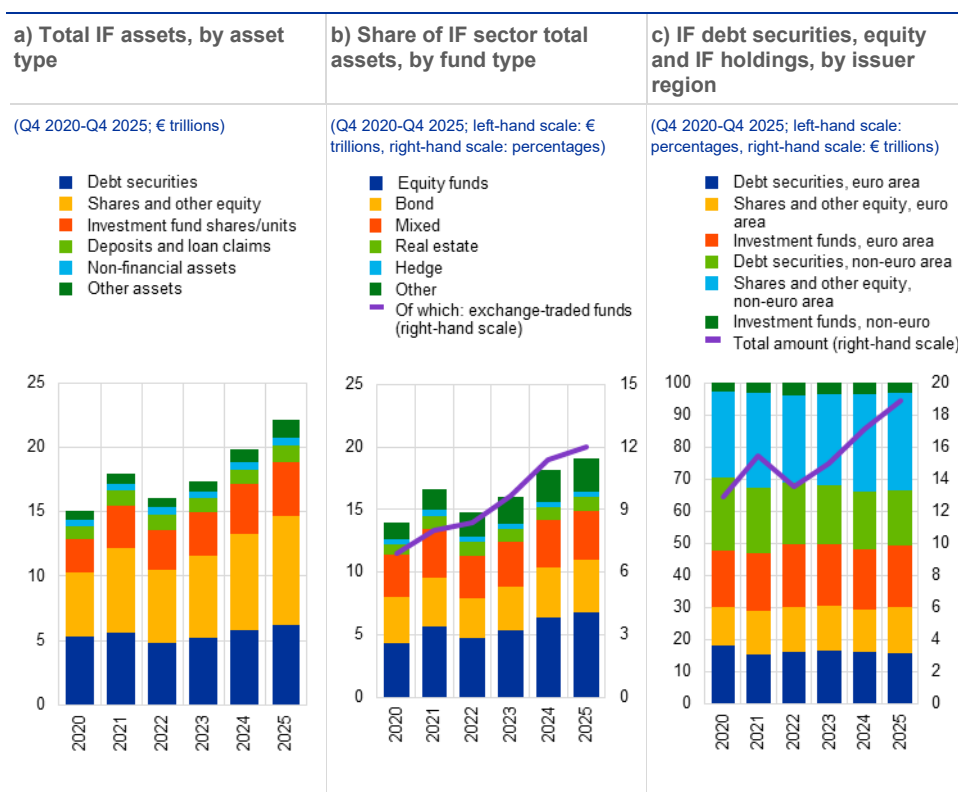
IFs facilitate cross-border financing and risk sharing, offering euro area investors diversified portfolios and access to foreign economies. However, the significant share of assets allocated outside the euro area suggests limited support for domestic companies, reflecting the less developed state of capital markets within the euro area.¹⁰ This dynamic is closely tied to the euro area’s surplus in the current account. In balance-of-payments terms, a surplus on the current and capital accounts corresponds to net lending to the rest of the world, reflected in the financial account. By its very structure, a current account surplus reflects excess savings that must be invested abroad, making the euro area a net lender to the rest of the world. Structural reforms aimed at deepening euro area capital markets are essential in order to reduce reliance on investing savings abroad and channel investment towards domestic markets.

⁹ See the special feature entitled “[Private markets, public risk? Financial stability implications of alternative funding sources](#)”, *Financial Stability Review*, ECB, May 2024.

¹⁰ See Box 6, Chart A.

Chart 1.14

Developments in the euro area IF sector



Source: ECB (IVF).
 Notes: The figures shown correspond to end-of-year data. Panel c: "Investment funds" refers to investment fund shares/units including money market fund shares.

Insurance companies and pension funds

Insurance companies and pension funds (ICPFs) recorded significant growth in total assets between 2022 and 2025, driven by strategic shifts and favourable market conditions. The total assets of the sector rose from €11.2 trillion at the end of 2022 to €12.9 trillion at the end of 2025 (SA, FS, Chart 31, ST33). This growth was primarily fuelled by rising interest rates, which improved investment returns, alongside a strategic pivot towards higher-yielding, less liquid assets. Additionally, rebounding equity market valuations and increased, albeit often short-term, debt investments contributed to the sector's expansion. Both insurance corporations and pension funds increased their equity exposures, predominantly via investment funds in the case of insurance corporations and via direct equity holdings in the case of pension funds.

More broadly, ICPF assets remain highly concentrated in a few euro area countries, with these entities generally focusing on offering their services domestically. Insurance corporations account for over 70% of the sector's assets (SA, Chart 31, ST33). The assets of insurance corporations are concentrated in Germany, France and Italy, while the Netherlands accounts for most of the euro area pension fund sector (SA, Chart 32, ST34). In addition to providing domestic services,

ICPFs typically invest heavily in euro area assets, playing a key role in funding local companies and supporting regional economies.

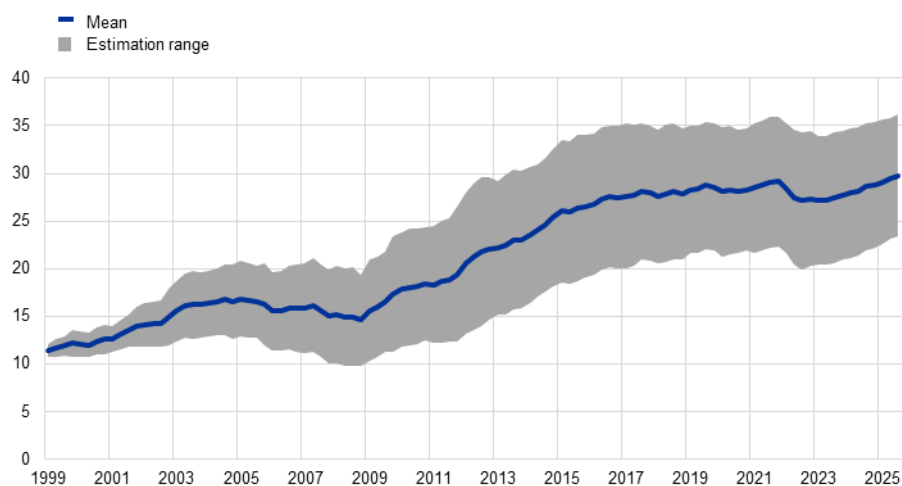
1.2.5 Role of non-bank financial intermediaries

The role of non-bank financial intermediaries (NBFIs) in financing the euro area real economy has recovered over the past two years and reached pre-pandemic highs. NBFIs accounted for 29.8% of outstanding credit to NFCs as of the third quarter of 2025, up from 27.2% in mid-2023 (Chart 1.15). This rise was mainly driven by further increases in NBFIs' stocks of NFC debt securities.

Chart 1.15

Share of non-bank credit to NFCs

(Q1 1999-Q3 2025; percentages of total credit granted by financial institutions)



Sources: ECB (BSI, FVC, QSA) and ECB calculations.

Note: The measure captures NBF credit, which is the share of credit provided by the NBF sector to euro area NFCs relative to bank and NBF credit, irrespective of whether that financing is provided through loans or purchases of debt securities. Upper bound estimates include a residual of OFIs, while lower bound estimates exclude this. For more details, see the box entitled "Measuring market-based and non-bank financing of non-financial corporations in the euro area", *Financial Integration and Structure in the Euro Area*, ECB, April 2022.

Leaving aside the broadly stable lending and increased debt securities exposure among banks, the scale of interconnectedness between banks and non-banks through debt and equity instruments has remained largely unchanged since 2022.¹¹ As of the second quarter of 2025, cross-exposures between MFIs and non-banks were mainly asset exposures to OFIs, including exposures via loans to OFIs (around €1.6 trillion) and debt securities issued by OFIs (approximately €2.2 trillion) (Chart 1.16, panel a). Aside from OFIs, the most significant link to the non-bank sector are MFI holdings of IF shares. As for NBFIs,

¹¹ See the special feature entitled "Systemic risks in linkages between banks and the non-bank financial sector", *Financial Stability Review*, ECB, November 2025: "There has been a rapid increase in interconnections between banks and NBF entities via the repo market, driven by prime brokerage activities concentrated among systemic banks." Such interconnections are not captured by the structural indicators underlying this analysis.

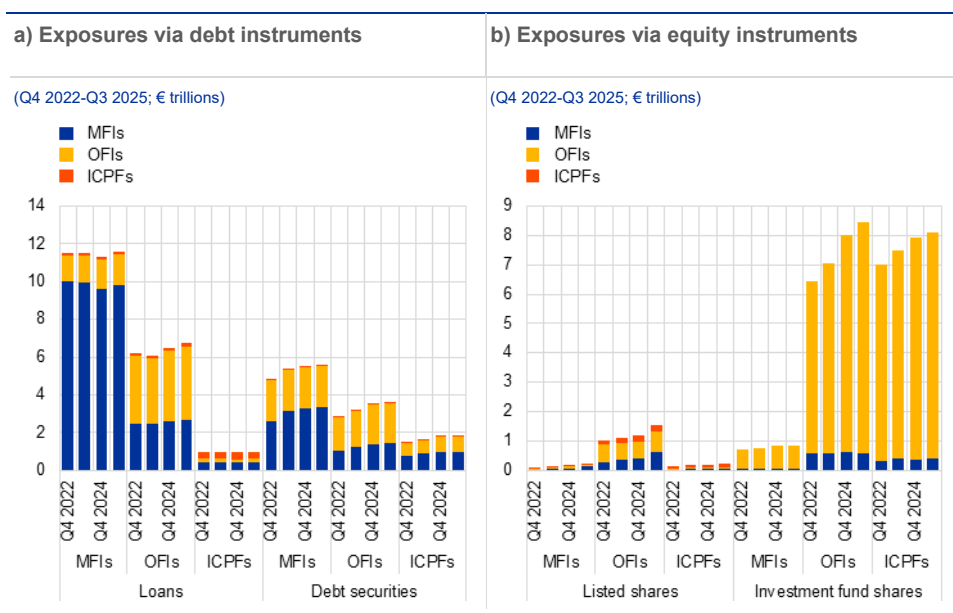
IFs hold exposures to banks via loans, while OFIs hold exposures to banks via debt securities issued by banks.

Interconnectedness between non-banks derived predominantly from non-banks holding IF shares, with this type of cross-exposure among non-banks increasing between the fourth quarter of 2022 and third quarter of 2025.

Collectively, the ICPF and OFI sectors each held €7.7 and €7.8 trillion respectively in IF shares as of the third quarter of 2025, up from €6.7 and €5.9 trillion respectively in the fourth quarter of 2022 (**Chart 1.16**, panel b). Holdings of debt securities issued by OFIs represented the next largest cross-exposure among non-banks, with aggregate ICPF, IF and OFI holdings of such securities increasing by €0.4 trillion to €2.9 trillion from the fourth quarter of 2022 to the third quarter of 2025.

Chart 1.16

Trends in cross-exposures among sectors of the euro area financial system, by instrument type and holder sector



Sources: ECB (QSA, BSI) and ECB calculations.
Notes: The data also include intra-group positions. MFIs stands for monetary financial institutions; OFIs stands for other financial institutions; ICPFs stands for insurance corporations and pension funds. OFIs are specifically non-monetary financial corporations, including financial vehicle corporations and excluding non-MMF IFs. Panel a: Loans by MFIs include both interbank lending and longer-term loans and exclude ESCB lending. Holdings of debt securities by MFIs exclude debt securities held by the ESCB in the context of the asset purchase programmes.

1.3 Resilience and risk sharing

The resilience and persistence of financial integration in the face of large shocks are key dimensions of its quality and are critical for supporting Economic and Monetary Union.¹² While the previous discussion focused on quantifying financial integration, this section examines its ability to withstand disruptions and maintain continuity during crises. The literature consistently indicates

¹² For an in-depth discussion on the “quality” of financial integration, see the special feature entitled “Financial integration and risk sharing in a monetary union”, [Financial Integration in Europe](#), ECB, April 2016.

that financial integration through equity investment is more resilient to shocks than integration via debt instruments. Furthermore, integration based on longer-maturity debt instruments is less susceptible to sudden stops –sharp declines in gross capital inflows from foreign investors –during times of crisis, unlike integration dominated by shorter maturities.

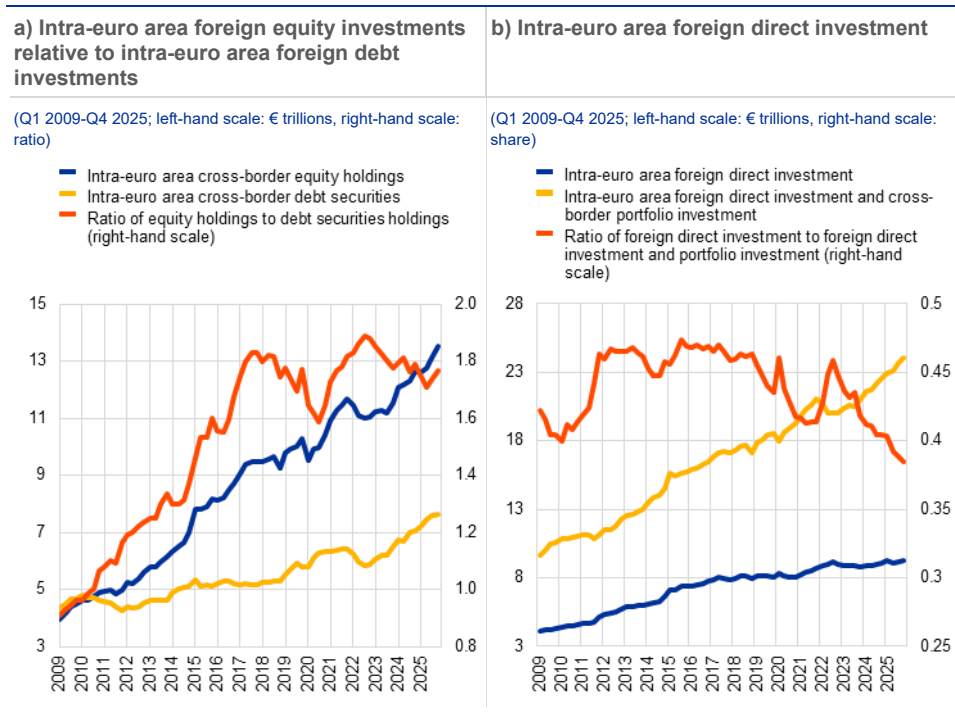
Overall, the quality of equity market integration in the euro area declined between 2022 and the fourth quarter of 2025. The ratio of intra-euro area cross-border holdings of equities to intra-euro area cross-border holdings of debt instruments declined to the pre-pandemic level (**Chart 1.17**, panel a). Cross-border holdings of equities and debt within the euro area rose mainly because of post-pandemic financial normalisation, improved risk sentiment and structural integration forces that continue to reduce friction in cross-border investment. The evidence points to stronger balance sheet positions, declining uncertainty and gravity-type factors (economic size, historical ties and reduced distance-related frictions) as key drivers.¹³ Debt securities have seen stronger intra-euro area cross-border growth than equities in the past few years, as bonds benefited more from the post-pandemic policy environment, regulatory incentives and portfolio-rebalancing dynamics, while equities remained more sensitive to valuation swings and risk sentiment.

The share of intra-euro area foreign direct investment (FDI) in total cross-border direct and portfolio equity investment has dropped to historically low levels in recent years (Chart 1.17, panel b). Between early 2022 (and hence prior to the start of Russia’s invasion of Ukraine) and the fourth quarter of 2025, this share fell from 42.8% to 38.5%. The decline was primarily driven by stagnant FDI positions, as investment transactions remained subdued amid weak overall investment activity in the euro area. By contrast, portfolio equity investment fluctuated due to volatile but generally rising equity market valuations, with euro area equity markets rebounding by 40% from levels prior to the invasion after experiencing a 20% correction in the initial months of the conflict.

¹³ Lane, P.R., “Euro area international financial flows: analytical insights and measurement challenges”, keynote speech at the joint conference of Banco de España, the Irving Fisher Committee on Central Bank Statistics and the ECB on “External statistics after the pandemic: addressing novel analytical challenges”, Madrid, 12 February 2024.

Chart 1.17

Indicators of equity market integration resilience in the euro area



Sources: ECB BoP data and ECB calculations.

Notes: Panel a: both portfolio and direct investment holdings are included under equity holdings. For debt securities, only portfolio investment is included, since debt securities are not available for FDI (only total "debt instruments"). Even if the analysis is restricted to portfolio investment only, we still see the rising importance of equities in intra-euro area cross-border holdings. Looking at the sector contribution, we see a general increase in equity holdings for all sectors except MMFs (S.123). Panel b: intra-euro area FDI is calculated as the average of asset and liability positions to account for possible asymmetries. For portfolio investment, only the asset side is used since liabilities are not reported owing to the custodial bias.

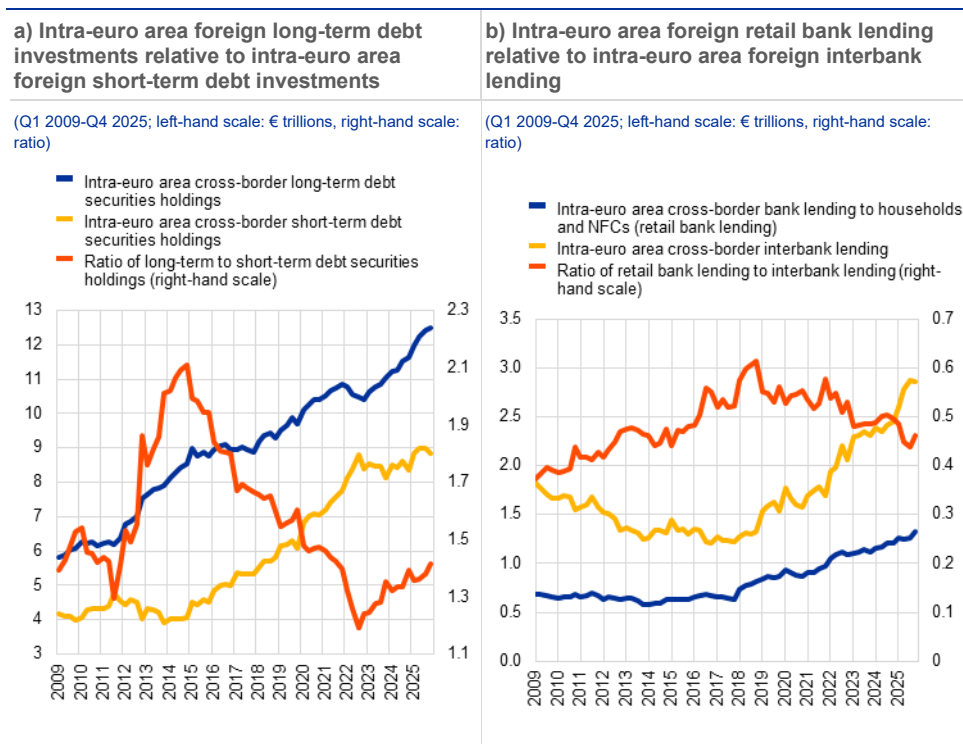
The quality of debt market integration has improved (Chart 1.18, panel a). This reflects increased issuance of debt but also euro area investors' willingness to buy longer-dated bonds from other jurisdictions. The tightening of euro area spreads, as discussed above, reflects these flows, which have been supported by factors including the improved fiscal standing of non-core countries and possibly the increased supply in euro credit markets. These interconnected drivers highlight evolving investor behaviour within the European bond market.

Loan market integration has increased in quantitative terms owing to a rise in interbank lending, which is a less resilient form of banking market integration.

A higher level of cross-border retail lending activities helps increase the resilience of the European banking sector by allowing further diversification of bank loan portfolios. Aggregate intra-euro area cross-border lending across counterparty sectors reached a record high in 2025. Cross-border interbank lending continued the ascending trend that started in late 2021. However, direct cross-border retail bank lending within the euro area – although it has slowly but steadily improved since 2018 – remains limited (Chart 1.18, panel b), pointing to continued low integration in retail banking markets.

Chart 1.18

Indicators of equity market integration resilience in the euro area



Source: ECB BoP data, ECB (BSI) and ECB calculations.

Notes: Panel a: the figures cover not only debt securities liabilities, but also other instruments such as currency deposits and loans (F.2 and F.4), trade advances and accounts payable (F.81 and F.89), insurance and pensions (F.6) and FDI debt instruments (FL). As a convention, F.6 and FL are classified entirely as long-term liabilities. Panel b: the blue line shows the total amount of intra-euro area cross-border bank lending to households and non-financial corporations (NFCs), i.e. retail bank lending. The yellow line shows the total amount of intra-euro area cross-border lending between MFIs, i.e. interbank lending. The red line shows the ratio of the two. For further discussion on the interpretation of these indicators, see the special feature entitled "Financial integration and risk sharing in a monetary union", [Financial integration in Europe](#), ECB, April 2016.

The generally benign picture of overall financial integration developments is further corroborated by risk-sharing indicators (SA, FI, Chart 4, S7). The

correlation between consumption and output across euro area member countries decreased substantially, suggesting that changes in output or, equivalently, income in each country lead, on average, to much smaller changes in consumption.

1.4 Conclusion

Developments over the past two to three years reflect both progress and challenges in euro area financial integration and structure. Improved financial

integration indicators, driven by reduced risk premia and structural changes, have supported cross-border activity and resilience within the region. However, subdued external financing across key sectors, coupled with limited intra-euro area equity market integration, point to persistent structural shortcomings. These deficiencies show that continued efforts must be made to deepen capital markets and reduce reliance on external providers. Future policy measures should focus on addressing structural impediments, in particular to equity market integration, while preserving the resilience of cross-border financing mechanisms.

2 What will it take to make the savings and investments union work?

2.1 Introduction

In early 2025, the European Commission launched the savings and investments union (SIU). This new strategy, which draws on the progress already made under the Commission's capital markets union (CMU) initiative, aims to improve the way the European Union (EU) financial system works. More specifically, its goal is to achieve a better allocation of financial savings to productive investments. There is a broad consensus among experts that the EU economy has great potential which is not being fully used. Its underperformance is due in part to inefficiencies in financial intermediation, which the SIU initiative is designed to address. The Commission provided a detailed description of the SIU in its Communication of 19 March 2025¹⁴, setting out a strategy to foster citizens' wealth and economic competitiveness in the EU.

This chapter discusses selected policy measures that may contribute to achieving the SIU's objective, focusing on certain priority areas. The Communication of 19 March 2025 considers a range of policy measures affecting different areas of the financial system. These include measures to: (i) provide retail investors with better savings and investment opportunities, (ii) improve financing opportunities for small and medium-sized enterprises (SMEs), (iii) remove barriers to cross-border financial activities within the EU, and (iv) make supervision more efficient. This chapter focuses on specific areas that market participants appear to attribute the most importance to in their commentaries on the SIU. As described below, we collected these commentaries by carrying out a systematic web-based search of publicly available sources.

The priority areas discussed here were selected using an AI-based approach designed to capture the views of market commentators on the key aspects of the SIU.¹⁵ The analysis focuses on identifying which priorities are most frequently highlighted in public commentaries and relating these views to the policy framework set out by the Commission. The first step was to collect publicly available commentaries on the SIU published in PDF format between January and November 2025.¹⁶ This process resulted in a sample of 172 unique publications from market analysts, academics, think tanks and other public institutions. Up to ten key statements of priorities from each of the 172 commentaries were then extracted

¹⁴ [Communication from the Commission to the European Parliament, the European Council, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions. Savings and Investments Union. A Strategy to Foster Citizens' Wealth and Economic Competitiveness in the EU.](#)

¹⁵ For a different but related AI-based approach applied to the CMU, see Arampatzi, A.-S. et al., "[Capital markets union: a deep dive. Five measures to foster a single market for capital](#)", *Occasional Paper Series*, No 369, ECB, revised May 2025.

¹⁶ The commentaries were identified by carrying out a systematic keyword-based search using Google Scholar, Google Search and Open AI's ChatGPT Deep Research to locate relevant documents.

using ChatGPT, yielding a total of 1,292 statements. The second step was to use ChatGPT to generate a list of 20 key priorities for the SIU, based strictly on the Commission’s Communication of 19 March 2025 . The resulting output is shown in Table 1. From this list, 18 key words or phrases were manually identified to define a corresponding set of priority categories. These categories served as labels for the subsequent classification exercise, ensuring that all priorities identified in the statements extracted from the external commentaries could be consistently assigned to one of the selected categories. The key words and phrases are shown in the “Priorities” column of Table 2. ChatGPT was then asked to assign each of the 1,292 statements to one of the 18 categories identified. Finally, the priorities were ranked according to the number of statements allocated to each category. The resulting ranking is presented in Table 2.

Table 19
20 key priorities of the SIU

-
- Boost retail participation in capital markets
 - Create EU wide savings and investment accounts
 - Strengthen retail investor protection through the Retail Investment Strategy
 - Improve financial literacy across the EU
 - Expand opportunities for retail co investment in EU strategic projects
 - Develop supplementary pension systems and promote auto enrolment
 - Enhance pension tracking systems and dashboards
 - Reform the Institutions for Occupational Retirement Provision (IORP) Directive and the Pan-European Personal Pension Products (PEPP) frameworks
 - Stimulate equity investment by institutional investors
 - Increase venture and growth capital availability
 - Upgrade the European Venture Capital Fund (EuVECA) framework
 - Improve exit options including Initial Public Offerings (IPOs) and secondary private markets
 - Remove tax barriers to cross border investment
 - Expand and simplify EU securitisation markets
 - Remove barriers to cross border distribution of investment funds
 - Reduce fragmentation in trading and post trading infrastructures
 - Modernise market infrastructure rules including Central Securities Depositories (CSDs) and trading market structure
 - Strengthen supervisory convergence and expand EU level supervision
 - Advance Banking Union including crisis management and deposit insurance
 - Improve competitiveness and integration of the EU banking sector
-

Note: The 20 key priorities were selected by ChatGPT based on the following prompt, with the Commission’s Communication of 19 March 2025 (referred to in the prompt as the “EC SIU strategy paper”) provided as an attached PDF: “Give me a list of 20 key priorities of the Saving and Investment Union, focus on the EC SIU strategy paper, output them only as a list, no comments to it!”.

Table 2
Ranking of the key priorities of the SIU

Rank	Priorities	Count	Share
1	supervision	221	0.17105
2	retail participation	152	0.11765
3	cross-border investment	151	0.11687
4	pension systems	109	0.08437
5	trading and post-trading infrastructures	108	0.08359
6	venture and growth capital	89	0.06889
7	tax barriers	81	0.06269
8	financial literacy	69	0.05341
9	retail investor protection	61	0.04721
10	EU banking sector	59	0.04567
11	securitisation markets	52	0.04025
12	equity investment	40	0.03096
13	institutional investors	21	0.01625
14	private markets	20	0.01548
15	investment funds	16	0.01238
16	IPOs	16	0.01238
17	deposit insurance	15	0.01161
18	exit options	12	0.00929

Notes: To produce this ranking, 1,292 statements of priorities were extracted from the 172 commentaries collected from the web-based search. The extraction was carried out by providing ChatGPT with the following prompt: "You are an expert policy analyst specialised in EU capital markets and policy initiatives. [...] Your task is to extract structured insights on the Savings and Investment Union (SIU). You read full economic and finance reports and return [...] list of concrete key priorities regarding the European Savings and Investment Union discussed in the report, up to 10. [...]". ChatGPT was then asked to assign each of these 1,292 priority statements to one (and no more than one) of the 18 priorities in the table using the following prompt: "You are an expert in EU capital markets and the Savings and Investment Union (SIU). Classify the following texts into exactly ONE category from the predefined list [of 18 priorities]. Choose ONLY from this list and return exactly the matching string (no explanations, no extra text)."

The top seven priorities identified in Table 2 above are fully consistent with the Commission's SIU action plan. Specifically, these priorities align with the four areas of work set out in the Commission's Communication on the SIU and summarised in a fact sheet of 19 March 2025¹⁷: citizens and savings (retail participation, pension systems), investments and financing (tax barriers to cross-border investments, venture and growth capital), integration and scale (cross-border investment and trading and post-trading infrastructures), and supervision. This configuration is also fully in line with previously identified European Central Bank (ECB) priorities.¹⁸

This chapter discusses these priorities, which overlap and are interrelated. It starts by looking at supervision (Section 2.2.) and the taxation of investments and financing (Section 2.3). The lack of harmonised rules across Europe is the main issue for both of these topics. The next two sections discuss retail participation in capital markets (Section 2.4) and pension systems (Section 2.5), as pensions are a

¹⁷ See "The Savings and Investments Union. Connecting savings and productive investments" on the Commission's website.

¹⁸ See Lagarde, C, "Follow the money: channelling savings into investment and innovation in Europe", speech at the 34th European Banking Congress, Frankfurt am Main, 22 November 2024. See also Arampatzi, A-S. et al., "Capital markets union: a deep dive. Capital markets union: a deep dive. Five measures to foster a single market for capital", Occasional Paper Series, No 369, ECB, revised May 2025.

specific tool for retail participation. Although the topic of private markets is only at number 14 in the ranking shown in Table 2, it is discussed in Section 2.6, as private markets play an important role for venture capital financing (ranked number 6 in Table 2). Venture capital is then discussed in a separate box. The chapter concludes with a section on post-trading infrastructure. The topic of cross-border investments is not covered in a dedicated section but plays an important role throughout all sections.

2.2 Supervision

Financial supervision in the EU is fragmented across Member States, with diverse supervisory models and authorities, as well as a lack of harmonised rules and practices.¹⁹ The European System of Financial Supervision is a network

centred around three European Supervisory Authorities (ESAs), along with the European Systemic Risk Board and national supervisors. The three ESAs are the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA) for insurance corporations and pension funds, and the European Securities and Markets Authority (ESMA) for financial markets. As the European banking supervisor, the ECB cooperates closely with the ESAs, especially the EBA. The national supervisors are the national competent authorities (NCAs) in charge of banking supervision in participating countries. In some cases, the national central bank is also the institution responsible for banking supervision.

Supervisory practices therefore vary significantly across the EU – even where supervisory rules have been fully harmonised, for example using EU regulations (rather than directives). A notable exception is the supervision of significant banks in the EU, as practices are fully harmonised under European banking supervision.

The lack of harmonisation in capital market supervision could hinder cross-border activities for market participants, create a non-level playing field and heighten the risk of regulatory arbitrage. A market participant active in different Member States may need to deal with several supervisory authorities and adhere to different national rules and supervisory practices. This increases operational complexity and compliance costs, which can be a barrier for smaller firms or new entrants seeking to expand across the EU. Variations in supervisory practices may result in the unequal treatment of financial institutions across Member States, as institutions in countries with stricter supervisory regimes may face higher regulatory burdens. Firms may seek to establish operations in Member States with less stringent supervisory practices, exploiting differences in regulatory standards, or may decide not to be active across borders.

Efforts towards supervisory convergence, an integrated approach to EU capital markets supervision and the adoption of EU regulations have the potential to improve harmonisation in supervisory outcomes. Converting directives into EU regulations – where relevant and practical – could help to further

¹⁹ The Banque centrale du Luxembourg does not fully share the views and statements made in Section 2.2 and Box 1 regarding centralised supervision.

harmonise supervisory rules.²⁰ The three ESAs (the EBA, EIOPA and ESMA) could also tackle diverging supervisory practices across NCAs by using guidelines and other convergence tools. However, greater harmonisation of rules should be accompanied by a more integrated supervisory framework to maximise the benefits of harmonisation. Significant entities – with their strong emphasis on cross-border activities – would be a prime candidate for supervision by central EU authorities. Box 1, entitled “Integrated supervision as a pillar of European capital markets”, provides a detailed description of the current supervisory framework in EU capital markets and discusses how integrated EU supervision could help achieve the objectives of the SIU.

Box 1

Integrated supervision as a pillar of European capital markets

Prepared by Jacopo Carmassi, Zakaria Gati, Cyprien Milea, Laura Parisi and Alessandro Spolaore

Deepening and integrating EU capital markets are central to the objectives of the savings and investments union (SIU). The SIU aims to mobilise Europe’s high level of savings more effectively, support investment and innovation, strengthen cross-border risk sharing and enhance the EU’s economic resilience and competitiveness. While progress has been made on regulatory harmonisation, outcomes in terms of market integration, depth and scale remain limited. This box focuses on the supervisory dimension as a key missing element in the integration agenda, building on a granular mapping of the existing supervisory architecture in Europe.

A structurally fragmented supervisory landscape

Six archetypal supervisory models for financial markets can be identified, five of which are currently in use across Europe, often in hybrid forms. These models range from fully integrated supervisors covering banking, securities and insurance (outside or within the central bank), to sectoral arrangements with separate authorities for each financial segment (integration across sectors can be full or just partial) and to objective-based “twin-peaks” models distinguishing between prudential and conduct supervision.²¹ In practice, EU Member States frequently operate mixed configurations, reflecting incremental reforms and historical developments following financial crises and broader shifts in institutional approaches. As a result, while capital market supervision in Europe broadly reflects five of the six archetypal models, the overall landscape is more complex, encompassing 16 distinct institutional set-ups (Chart A).

Financial sector supervision in Europe is dispersed across 52 national authorities, creating a highly fragmented supervisory landscape.²² The proliferation of supervisory authorities across Europe results in material differences in mandates, supervisory practices and enforcement outcomes. As a result, even where legal requirements are formally harmonised, their

²⁰ For example, the Commission recently proposed this option with the Settlement Finality Directive – Directive 98/26/EC of the European Parliament and of the Council of 19 May 1998 on settlement finality in payment and securities settlement systems (OJ L 166, 11.6.1998, p. 4). See Question 27 in “Questions and answers on the market integration package” on the Commission’s website.

²¹ The “functional” approach, envisaging one supervisor for each activity performed in the financial sector, has not been applied in practice, due to implementation complexity and to the sheer number of authorities that might be needed.

²² This total includes supervisors of banking, insurance, pension funds, central securities depositories, central counterparties, asset managers and investment funds, investment firms, trading venues, electronic-money tokens, asset-referenced tokens, other crypto-assets and crypto-asset service providers, but excludes AML/CFT and financial sanctions supervisors.

implementation diverges across jurisdictions due to differing interpretations of EU legislation, the application of national discretions and distinct supervisory cultures (regarding matters like intrusiveness), ultimately leading to uneven and fragmented supervisory outcomes.

In addition, EU-level oversight of capital markets plays a limited and uneven role. While the European Securities and Markets Authority (ESMA) contributes to rulemaking and supervisory convergence, and directly supervises a small number of specific entities, the vast majority of capital market participants remain under national supervision. This division of responsibilities means that supervision continues to be organised primarily along national borders, despite the cross-border nature of many market activities.

EU arrangements for capital market supervision also appear highly fragmented when compared with other advanced jurisdictions, such as the United States. In the United States, capital market supervision is largely exercised at the federal level by the Securities and Exchange Commission and the Commodity Futures Trading Commission, which oversee securities and derivatives markets respectively, complemented by self-regulatory organisations and state authorities. Europe's supervisory architecture features a much heavier stratification of responsibilities with no direct equivalent in the United States. While structural differences in institutional design and the central role of national supervisors mean that the European framework is unlikely to fully converge towards a US-style model, proposed reforms to strengthen ESMA's role could nonetheless enhance EU-level integration of supervisory powers. Further progress on supervisory convergence could help. but the key, necessary condition to ensure a more consistent implementation and enforcement of EU rules across jurisdictions is EU-level supervision.

Chart A

The EU supervisory architecture

- Twin peaks
- Sectoral
- Partially integrated
- Hybrid (close to twin peaks)
- Integrated in CB
- Integrated outside CB
- Direct EU-level supervision

	Insurance/pensions		Markets							MiCAR				Transversal			
	Insurance	Pension funds	CSDs	CCPs	Asset Managers Investment Funds	Investment firms	Trading venues	CRA	Trade repositories	Benchmark administrators	EMTs	ARTs	Other crypto-assets	CASPs	AML/CFT	Financial sanctions	DORA
BE	CB/M	M	CB/M								CB	CB/M	M	CB/M	CB/M	G/FIU	
BG	CB	SI	CB/SI			SI					CB	CB/SI	SI	CB/SI		G	
CZ			CB										CB			FIU	
DK			SS										SS			G/SS	
DE	SS (+CB)	SS		SS/CB		SS							SS			CB/G	
EE			SS										SS			G	
IE	CB	CB/PF				CB							CB				
GR		CB			M						CB/M	M	CB/M			FIU	
ES	CB	G				M					CB		M	CB/G/M		G	
FR	PA (CB) / M	PA (CB)	M/CB	CB/M / PA (CB)		M		PA (CB) / M			PA (CB)	M	PA (CB) / M			G	
HR	CB			SI							CB		SI	CB/SI		G	
IT	CB/M	I (CB) / M	PF/M			CB/M					CB	CB/M	M	CB/M	CB/I		G
CY	CB	G	G	CB/M	CB	M	CB/M	M			CB/M	CB	M	CB/M	CB/M/G (insur.)		G/M
LV				CB									CB			FIU	
LT				CB									CB			G	
LU	BS (+CB)	I				BS							BS			BS/G	
HU				CB									CB			FIU	
MT				SS									SS			G	
NL				CB/M							CB/M	M	CB/M	CB	CB/G/FIU		
AT	SS (+CB)			SS									SS			G	
PL				SS									SS		CB/SS	G	
PT	CB	I				M					CB		M	CB/M/M		G	
RO	CB			SI									TBC	CB/SI		G/CB/SI	
SL	CB	I				M					CB	M	CB/M	CB/M/M		G/CB/M	
SK				CB									CB			G	
FI				SS									SS			G/SS/FIU	
SE				SS									SS				
EU	SSM (ECB)	EIOPA	EIOPA	ECB	ECB, ESMA				ESMA		EBA	EBA			AMLA		ESAs, ECB

Source: Carmassi et al.*

Notes: CSDs stands for central securities depositories; CCPs stands for central counterparties; CRA stands for credit rating agencies; EMTs stands for electronic-money tokens; ARTs stands for asset-referenced tokens; CASPs stands for crypto-asset service providers; AML/CFT stands for anti-money laundering/combating the financing of terrorism; DORA stands for the Digital Operational Resilience Act; SS stands for single supervisor; CB stands for central bank; M stands for markets supervisor; I stands for insurance supervisor; BS stands for bank and securities supervisor; SI stands for securities and insurance supervisor; PA stands for microprudential authority; PF stands for pension funds supervisor; G stands for government entity; FIU stands for financial intelligence unit. TBC indicates authorities which still need to be formally designated by the Member States as required by the Markets in Crypto-Assets Regulation (MiCAR).

*) Carmassi, J. et al., "One market, one supervision – Rethinking the supervisory landscape for a truly integrated capital market in Europe", *Occasional Paper Series*, ECB, 2026.

The growing cross-border scale and concentration of capital market activities increasingly conflict with supervisory arrangements organised along national lines. Key segments of EU capital markets – including market infrastructures, asset management and crypto-asset service providers – now operate predominantly on a pan-European or even global basis. In several of these sectors, a small number of large entities account for the largest share of cross-border activity and systemic relevance, which does not tally with supervisory responsibilities remaining fragmented across multiple national authorities.

This structural mismatch limits the ability of supervisors to assess risks from a system-wide perspective, while supervisory fragmentation also generates significant inefficiencies and uneven outcomes that weaken both market integration and financial stability. National supervisors are naturally oriented towards domestic risks and entities. No single authority has a comprehensive overview of cross-border exposures, interconnectedness and spillovers across the capital market ecosystem, or the capacity to act on them where warranted. National authorities coordinate the supervisory work and the exchange of relevant information through cooperation frameworks, which often involve ESMA in a coordination role (for example, its role has recently been strengthened in the context of CCP supervision). However, these mechanisms cannot fully substitute for a single, system-wide perspective on risks, which can only be guaranteed through a single supervisor. Additionally, dispersion of supervisory responsibilities increases the likelihood of coordination failures that can delay corrective action and amplify systemic vulnerabilities. It also raises compliance costs and undermines the level playing field, ultimately combining to weaken incentives for cross-border expansion and consolidation.²³

Why EU-level supervision is needed

First, EU-level supervision would strengthen supervisory effectiveness by aligning oversight with the cross-border nature of capital market risks. EU-level supervision would enable a comprehensive assessment of risks, interconnections and spillovers. It would thus result in improved risk identification and mitigation, and enhanced crisis preparedness through a system-wide perspective that complements national supervision. EU-level supervision, with a EU supervisor endowed with sufficient capacity and resources, should apply to large cross-border firms and inherently cross-border financial sectors (i.e. CASPs). National supervisors would retain supervisory responsibilities for all the smaller capital market players with a predominantly domestic nature, which would be the vast majority overall, thereby ensuring a proportionate and tailored approach.

Second, integrated supervision would improve supervisory efficiency by pooling expertise and reducing duplication. EU-level supervision would allow supervisory resources to be allocated more efficiently, particularly in highly technical or fast-evolving areas where expertise is scarce – while leveraging the expertise of national supervisors. By reducing overlapping activities and streamlining interactions, a more integrated framework would enhance the overall efficiency of supervision for both authorities and market participants.

Third, EU-level supervision would contribute to simplification by reducing complexity both for the supervised entities and for supervisors. EU-level supervision could simplify supervisory processes, enhance predictability and reduce compliance costs for cross-border firms. The adoption of common supervisory methodologies and the reduction in the number of supervisory

²³ For more on the shortcomings in current arrangements for capital market supervision in Europe, see Carmassi, J. et al, “[One market, one supervision – Rethinking the supervisory landscape for a truly integrated capital market in Europe](#)”, *Occasional Paper Series*, ECB, 30 March 2026.

interlocutors would streamline interactions between supervisors and supervised entities. Furthermore, integrated supervision would make EU-level considerations more prominent when taking supervisory decisions, which would also promote consistency across the EU.

Fourth, EU-level supervision is a necessary condition for advancing capital market integration under the savings and investments union. Consistent application and enforcement of EU rules across jurisdictions would help remove supervisory barriers to cross-border activity, support a level playing field and facilitate consolidation where economically justified. While not sufficient on its own, EU-level supervision represents a critical enabler of deeper, more integrated capital markets, capable of mobilising savings more effectively and supporting investment and economic resilience across the EU.

Strengthening EU-level supervision represents a necessary, feasible and effective lever to advance the objectives of the savings and investments union, while also contributing to further harmonisation. While legislative alignment – for example in the areas of insolvency, tax or company law - would support market integration, such reforms are politically complex and difficult to advance at the current juncture; by contrast, supervisory integration can deliver tangible benefits more rapidly. In this sense, supervisory integration is not a substitute for legal harmonisation but a necessary complement to it, capable of reducing fragmentation and unlocking the full potential of EU capital markets to mobilise savings and support investment seamlessly across the EU.

2.3 Investments and financing – taxation

Interest and capital tax rules, as well as corporate tax rules, are not fully harmonised across the EU, making it more difficult for market participants to be active in multiple EU Member States. The EU has achieved significant harmonisation in certain aspects of indirect taxation, such as value added tax (with the VAT Directive²⁴) and excise duties (with the Excise Duty Directive²⁵). However, little harmonisation has been achieved in areas such as corporate tax, personal income tax and withholding tax regimes, which are largely under the jurisdiction of individual Member States.²⁶ As a result, market participants that are active in more than one EU Member State may need to deal with many diverging rules, increasing tax compliance costs and uncertainty. Enterprises subject to corporate tax and taxpayers subject to withholding taxes are affected differently, as we discuss in this section.

Enterprises, including financial institutions such as banks and non-bank financial institutions that carry out taxable activities in different EU countries, would benefit from a harmonisation of corporate tax rules. It may not be useful to harmonise tax rates as every country has its own fiscal needs and national policy

²⁴ Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax (OJ L 347, 11.12.2006, p.1).

²⁵ Council Directive (EU) 2020/262 of 19 December 2019 laying down the general arrangements for excise duty (OJ L 58, 27.2.2020, p. 4).

²⁶ The EU Treaties limit legislative instruments in the field of direct taxation to directives, while for indirect taxation, regulations and other acts with direct effect in the legal systems of Member States can be used.

objectives. However, harmonising corporate tax procedures, including the calculation of tax bases, enforcement and definitions, would provide clear benefits, as it would make it easier for enterprises to carry out investment activities in another EU Member State. For example, an enterprise would not need to acquire a knowledge of a completely new tax system (the rules of which may be only available in a foreign language) or hire tax advisers for each country of activity. Tax compliance costs and legal uncertainty would be reduced. This could encourage more corporate cross-border activity, thereby fostering competition and increasing options for consumers.

Proposals to address the problem have been made by the Commission, but progress has been slow. The Commission made a proposal²⁷ to address the issue for SMEs in 2023. Under the proposal, SMEs that operate a “permanent establishment” (PE) in another EU country would be allowed to interact only with the tax authority of the home country. Tax rules would not be harmonised. Instead, the tax base for the PE would be calculated according to the tax rules of the home country. The tax rate of the host country of the PE would be applied to that tax base, and the collected tax revenue would be transferred to the host state. Another proposal adopted by the Commission is the Business in Europe: Framework for Income Taxation (BEFIT) proposal.²⁸ This is aimed at allowing members of a group of corporations active in different EU Member States to calculate their tax base across the EU according to a single set of rules. The BEFIT proposal would thus be beneficial for large corporate groups. Progress on all these proposals has been slow because of conflicting views and interests across Member States.²⁹

Instead of aiming for harmonisation across all EU Member States, it could be more fruitful to try to harmonise tax rules across a subset of Member States. Each EU country could be given the option of adopting a set of harmonised tax rules, thereby creating a harmonised tax area within the EU. Full harmonisation across all EU Member States could be achieved at a later stage. This idea is considered in Box 2.

Taxpayers already benefit from double taxation agreements within the EU, but refund procedures for withholding taxes are often cumbersome – a problem that the Faster and Safer Tax Relief of Excess Withholding Taxes (FASTER) Directive³⁰ is expected to address. Many EU Member States levy withholding taxes on income from financial assets, including those of investors located in other EU countries. These investors must also pay taxes on the same income in their home country. Many countries have put in place double taxation agreements to avoid the same income being taxed twice. However, the procedures for obtaining a withholding tax refund are often complicated. According to the Commission:

²⁷ [Proposal for a Council Directive establishing a Head Office Tax system for micro, small and medium sized enterprises, and amending Directive 2011/16/EU.](#)

²⁸ See “[Business in Europe: Framework for Income Taxation \(BEFIT\). A proposal for a new legislative framework for corporate taxation in the EU](#)” on the European Commission’s website.

²⁹ The EU may benefit from the OECD’s global minimum tax, which ensures that large multinational enterprises pay a minimum 15% effective tax rate on profits in every jurisdiction where they operate. See [Council Directive \(EU\) 2022/2523 of 15 December 2022 on ensuring a global minimum level of taxation for multinational enterprise groups and large-scale domestic groups in the Union.](#)

³⁰ Council Directive (EU) 2025/50 of 10 December 2024 on faster and safer relief of excess withholding taxes (OJ L, 2025/50, 10.1.2025).

“Withholding tax procedures applied in each Member State are currently very different. Investors must deal with more than 450 different forms across the EU, most of which are only available in national languages.” Many investors, not least households, are therefore deterred from investing savings outside their home country, which not only reduces investment opportunities but also potentially increases financing costs for many enterprises. The FASTER Directive is expected to address the problem of cumbersome withholding tax procedures for dividends from publicly traded shares and interest from publicly traded bonds. Under the Directive, Member States will issue a standardised digital tax residence certificate. This can be used to reclaim withholding taxes across all Member States that are in the scope of the Directive.³¹ Fast track-procedures will be in place to ensure that withholding taxes for which a refund could be claimed are not levied at all (relief at source) or are refunded within 50 days. In this context, relief at source would clearly be the preferable option. The Directive must be transposed into national legislation by the end of 2028, with national rules to become applicable as of 2030.

Taxes could be designed in such a way as to provide households with incentives to increase retail participation in capital markets. For example, specific capital market investments by households could benefit from a reduced tax rate or from an increased tax allowance. A detailed discussion of such an approach can be found in Box 3, entitled “Euro Area household savings allocation and the role of taxation”. The box also provides more information on the FASTER Directive.

Box 2

A harmonised tax area within the EU?

Prepared by Jens Tapking

Harmonising (corporate) tax rules across the EU is challenging as it requires unanimity in the Council of the European Union, and the short-term costs of harmonising tax regimes are likely to be high for individual Member States. To quote the European Commission: “Adopting harmonised legislation on taxation requires the unanimous agreement of all Member States in the Council, which has tended to act as a brake on the adoption of common rules”.³² For EU legal acts on direct taxation, Article 115 of the Treaty on the Functioning of the European Union (TFEU)³³ requires unanimity in the Council. At the same time, harmonising tax rules may prove costly for Member States for at least two reasons. First, individual countries’ tax laws are typically complex. This might make it difficult to rework them with a view to harmonisation. Second, Member States use not only tax rates but also other tax rules, such as provisions on the depreciation of capital assets, to achieve specific policy goals. If tax rules are harmonised, it may no longer be easy for Member States to change them in the way they want.

Instead of aiming at harmonisation across all Member States, it could be more fruitful to give each country the option of adopting a set of uniform tax rules, thereby creating a harmonised tax area within the EU, while full harmonisation across all Member States could be achieved at a later stage. This concept is similar to the introduction of the euro in 1999 in

³¹ The Directive is optional, for example, for Member States with a small capital market, i.e. market capitalisation of less than 1.5% of total EU market capitalisation.

³² See [EU tax policy](#) on the European Commission’s website.

³³ [Treaty on the Functioning of the European Union](#) (OJ C 326, 26.10.2012, p. 47).

initially 11 out of 15 Member States at that time. Some Member States may face relatively low costs in harmonising tax rules. These countries could decide to establish an area of harmonised (corporate) tax rules based, for example, on a proposal by the European Commission. This area could become especially attractive for corporate investment, which could, in turn, encourage other Member States to join at a later stage. The tax rules within this area could take into account national modalities to the extent feasible.

This idea can be illustrated by a stylised example involving firms that wish to diversify investments across different countries but do not want to be exposed to multiple tax systems.

Let us suppose that there are only four EU countries: A, B, C and D. There are N firms in each country, each of which is willing to invest the same amount, say one euro for simplicity. The firms believe they would benefit from diversifying across all four countries, meaning they would in principle like to invest 25 cent in each country. But they do not want, or are not able, to be exposed to more than two different tax regimes. As a result, as long as all four countries have different tax systems, each firm will invest in only two countries: 50 cent in its home country and 50 cent in one other country. We assume that the same number of firms from any given country invests in each of the other three countries. The resulting investment flows are shown in the first part of Table 1 below. For example, Country A receives investment of $1/2 * N$ from firms in Country A and of $1/6 * N$ from firms in Country B. Now suppose that two of the countries, say A and B, decide to bilaterally harmonise their tax rules, as these two countries have relatively low harmonisation costs, while the other two face much higher costs. Each firm would now invest in three countries – its home country and Countries A and B – thus achieving a higher level of integration. The second part of Table 1 shows the new investment flows. Countries A and B now attract more investment than before and C and D less investment. Countries C and D could now be interested in joining the harmonised tax regime of countries A and B, as this would allow them to attract lost investment (third part of Table 1). This would result in full integration of corporate investments across the four countries.

Table 1

Stylised example – total investment amounts

	Country of investment			
	A	B	C	D
No harmonisation				
A	1/2 N	1/6 N	1/6 N	1/6 N
B	1/6 N	1/2 N	1/6 N	1/6 N
C	1/6 N	1/6 N	1/2 N	1/6 N
D	1/6 N	1/6 N	1/6 N	1/2 N
Total	N	N	N	N
Countries A and B harmonised				
A	1/3 N	1/3 N	1/6 N	1/6 N
B	1/3 N	1/3 N	1/6 N	1/6 N
C	1/3 N	1/3 N	1/3 N	0
D	1/3 N	1/3 N	0	1/3 N
Total	4/3 N	4/3 N	2/3 N	2/3 N
All countries harmonised				
A	1/4 N	1/4 N	1/4 N	1/4 N
B	1/4 N	1/4 N	1/4 N	1/4 N
C	1/4 N	1/4 N	1/4 N	1/4 N
D	1/4 N	1/4 N	1/4 N	1/4 N
Total	N	N	N	N

While reality is much more complex than the stylised example may suggest, it does illustrate positive effects of, and a possible path towards, harmonised tax rules. More discussion and analysis is needed before firm conclusions can be drawn, but some tentative conclusions may already be possible at this stage. Many firms would likely diversify their investments more readily across the EU if tax rules were more uniform. This could help countries within a harmonised tax area to attract additional investment. Countries outside this area may receive less investment, which would provide incentives for them to also join the scheme at some later stage. It is smaller countries that could benefit the most from joining the harmonised tax area from the outset. If these Member States continue to have highly country-specific tax rules, many foreign investors may consider the fixed cost of dealing with these rules too high, given the more limited investment opportunities in smaller countries.

2.4 Citizens and savings – retail participation in equity markets

Euro area households save a relatively large part of their disposable income.³⁴

On aggregate, euro area gross household saving rates are high relative to gross disposable income (15% in the first quarter of 2025) and are consistently above the investment rate (9% in the first quarter of 2025).^{35,36} Over the past three years the gap has started to widen. There is also wide dispersion across EU Member States. Countries such as Germany, the Netherlands and France have elevated saving rates (around 19% in the first quarter of 2025), while the levels in Portugal and Poland are only around half as high (11% and 10% respectively in the first quarter of 2025). As saving rates have gone up in the past years, a sizeable flow of fresh savings each year could be deployed into productive risk capital via listed equities or corporate bonds.

Euro area households have traditionally held a relatively large part of their financial assets in the form of bank deposits and currency, while listed shares have played a smaller role.

In the euro area, aggregate household savings have traditionally flowed into low-yielding deposits and to a lesser extent into (life) insurance policies and pension entitlements. The share of deposits and currency in the portfolios of euro area households stands at 32% (as at the second quarter of 2025), up from 28% in the second quarter of 2001 (**Chart 2.1**). This is about three times higher than in the United States (11% in the second quarter of 2025). Listed shares held directly by euro area households account for 5% of household portfolios (31% in the United States).³⁷ Investment fund shares, pension entitlements and insurance products (including life insurance policies), through which households can hold equity and other traded financial assets, account for 38%.

³⁴ For an analysis of euro area and US saving rates, see “[Household saving rates in the euro area and in the US: a counterfactual analysis](#)” on the European Commission’s website.

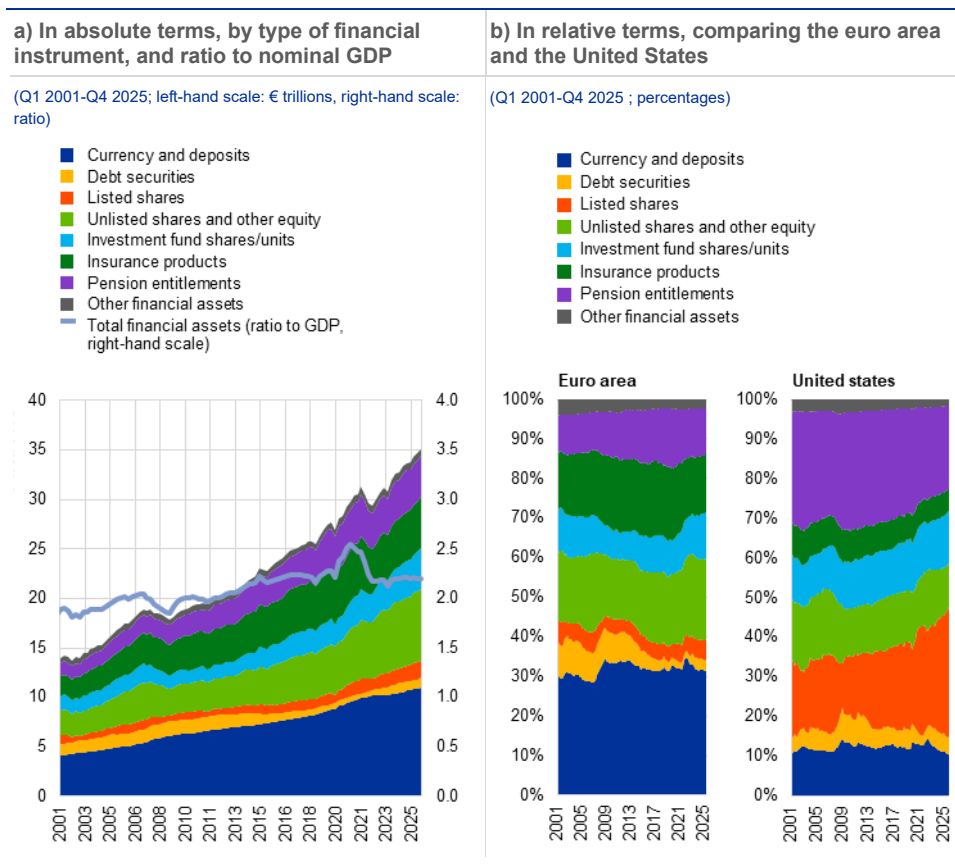
³⁵ Eurostat defines the [household saving rate](#) as gross household saving divided by gross disposable income, with the latter being adjusted for the change in pension entitlement of households.

³⁶ Eurostat defines the [household investment rate](#) as gross investment (gross fixed capital formation; mainly dwellings) divided by gross disposable income (adjusted for the change in pension entitlements) of the household sector in national accounts. Household investment mainly consists of the purchase and renovation of dwellings. Consumer durables (which include passenger cars) are not considered part of household investment.

³⁷ Listed and unlisted shares and other equity (representing private ownership in corporations) account for 26% in the euro area and 42% in the United States.

Chart 2.1

Development of euro area household financial assets



Sources: Federal Reserve Bank of St. Louis, OECD, ECB and ECB calculations.

A higher share of equity, held directly or indirectly, would have meant higher returns on household savings over the past decades and therefore could have had a positive effect on the whole economy. Historical data show that listed shares consistently outperform other, safer asset classes such as bonds and bank deposits over the long term. For instance, investing in a savings product consisting of low-cost funds would have given an annualised return of around 6% over the past ten years, similar to the return on European stock indices such as the MSCI Europe.³⁸ This is substantially higher than the interest rate on deposits, even those with a fixed term, where most savings are currently held. Higher returns on savings would be directly beneficial for households as opportunities for consumption would increase as a result. The additional consumption could have a positive effect on European economic growth. Moreover, in ageing European societies, where unfunded pension systems may turn out to be unsustainable, higher returns on savings would bring important benefits.

A higher share of equity products in the financial assets of households could improve opportunities for enterprises to obtain the finances needed to pursue innovations. Additional household demand for equity investments could increase

³⁸ See Banu, E. et al., “Crossing two hurdles in one leap: how an EU savings product could boost returns and capital markets”, *The ECB Blog*, ECB, 2025.

the depth of equity markets and reduce the cost of equity for companies more generally. This would be likely to improve the innovative potential of the European economy, as equity is a long-term financing source that helps companies to pursue innovations.

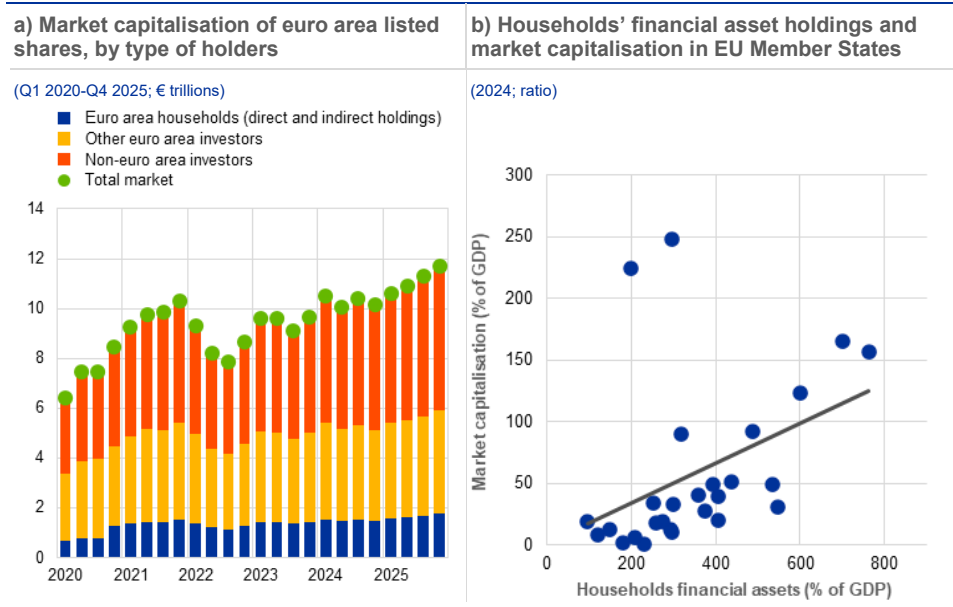
The euro area equity market is small compared with those of other major economies, and higher retail participation alone may not provide a strong enough boost. The market capitalisation of listed euro area companies is 67% of euro area GDP, far below the proportion in the United States (about 216%), Japan (about 157%) and the United Kingdom (about 97%).³⁹ A larger equity market would be beneficial for the euro area economy in terms of improved equity market liquidity and financing opportunities. There is a positive correlation between households' financial assets and equity market capitalisation in EU countries (**Chart 2.2**, panel b). However, euro area households only hold about 15% of euro area equities, either directly or indirectly through investment funds and pension funds (**Chart 2.2**, panel a). This means that euro area household participation in euro area equity markets would need to increase by 67% to achieve a 10% increase in euro area equity market capitalisation, even assuming that euro area households do not crowd out other equity investors.⁴⁰

³⁹ Figures for the euro area, United States and Japan refer to 2024, while the figure for the United Kingdom refers to 2022. Data sources: ECB for the euro area, [World Bank](#) for the United States, Japan and the United Kingdom.

⁴⁰ Let $Total$ denote the total market capitalisation of all euro area listed companies and HH the market value of shares in these companies held by euro area households. From the text, we know $HH = 0.15 \cdot Total$. We assume no crowding out, i.e. $\Delta HH = \Delta Total$. We aim at $\Delta Total = 0.1 \cdot Total$. From these three equations, we obtain $\Delta HH = 0.67 \cdot HH$.

Chart 2.2

Holders of euro area equity and relationship between household financial assets and market capitalisation



Sources: ECB (BSI, CSDB, ICB, IVF, PFBR, SHS) and ECB calculations.

Notes: Panel a: "Total market" refers to the size of equity instruments issued by euro area-domiciled entities. The "households" category includes both direct holdings of households and pension funds, as well as their indirect holdings via investment fund shares. "Other euro area investors" includes all euro area-issued securities held by euro area sectors other than households and pension funds. This category is adjusted to exclude investment fund shares that have been reallocated to the household sector under the look-through approach.

Assets held via investment fund shares are obtained following the look-through approach outlined in Carvalho and Schmitz*.

Panel b: each dot represents an EU country. Households financial assets include households' holdings of equity, investment fund shares, as well as insurance, pension and standardised guaranteed schemes. Market capitalisation refers to listed shares issued by both non-financial and financial corporates. Both measures are expressed as percentage of the respective country's GDP.

*) Carvalho, D. and Schmitz, M., "Shifts in the portfolio holdings of euro area investors in the midst of COVID-19: looking-through investment funds", *Working Paper Series*, No 2526, ECB, 2021.

There are several factors that could explain the preference of European households for bank deposits and other low-risk, low-return savings products.

Risk and loss aversion may play an important role.⁴¹ It is noted that risk aversion is not a sign of irrationality and as such there might be no reason to change this behaviour. However, a lack of knowledge about financial market products may often lead to sub-optimal decisions. Such a lack of knowledge appears to be widespread in Europe. A Eurobarometer study of 2023 found that only 18% of EU citizens overall have a high level of financial literacy, and the countries where financial literacy is highest (e.g. the Netherlands, Denmark and Sweden) are those with a high level of retail capital market participation and successful savings account products.⁴² A household member who does not understand a savings instrument may be more likely to avoid it and may perceive capital market products to be relatively complex.⁴³

Various measures may be considered for the purpose of increasing retail participation in capital markets in general and equity markets in particular.

⁴¹ See Bekhtiar, K., Fessler, P. and Lindner, P., "Risky assets in Europe and the US: risk vulnerability, risk aversion and economic environment", *Working Paper Series*, No 2270, ECB, 2019.

⁴² See "Monitoring the level of financial literacy in the EU", Flash Eurobarometer, No 525, March-April 2023.

⁴³ For a more detailed discussion of financial literacy in the EU, see Demertzis, M. et al., "The state of financial knowledge in the European Union", *Bruegel Policy Brief*, No 04/24, February 2024.

Table 3 provides a list of seven such measures. For each measure, we asked ChatGPT to specify, for each of the 172 commentaries used for the ranking in Section 2.1, whether the commentary supports or recommends the measure. As Table 3 shows, “using tax incentives” (to encourage households to invest their savings in capital markets) is the highest-ranked measure, supported or recommended in 95 of the 172 commentaries. It is closely followed by “introducing suitable investment products” and “improving financial literacy”, while all other measures lag far behind in the ranking.⁴⁴

Table 3
Ranking of measures to foster retail participation

Rank	Measure	Count	Share
1	using tax incentives	95	55.6%
2	introducing suitable investment products	92	53.5%
3	improving financial literacy	90	52.3%
4	reducing product complexity	52	30.2%
5	increasing transparency	47	27.3%
6	reducing transaction costs/fees	47	27.3%
7	shifting protection from deposits to markets	25	14.6%

Notes: To obtain this ranking, ChatGPT was asked to decide, for each of the 172 reports used for the ranking in Section 2.1, which of the seven measures in the table was actively supported or recommended by the report. The prompt was as follows: “You are an expert policy analyst specialised in EU capital markets and policy initiatives. [...] Your task is to extract structured insights on the Savings and Investment Union (SIU). You read full economic and finance reports [...]. The following fields capture whether the report actively supports or recommends [a given measure from the list of seven measures] aimed at increasing retail participation in capital markets. Set each field to “yes” only if the report clearly presents the measure as desirable, necessary, beneficial, or recommended AND links it explicitly to increasing participation of households or retail investors in capital markets. Mere mention, neutral description, or background discussion is not sufficient. If the measure is only referenced descriptively, historically, or without a clear recommendation or positive framing for retail participation, set it to “no.”

Savings and investment accounts (SIAs) as recommended by the Commission could bolster the capital market participation of households. The Commission Recommendation of 30 September 2025⁴⁵ proposes that Member States introduce SIAs, which are accounts offered by financial institutions to households via government programmes. Capital gains achieved on them would benefit from a simplified and possibly advantageous tax treatment. As such, introducing SIAs would correspond to the two measures ranked highest in Table 3. SIAs and their possible tax treatment are discussed in Box 3.

Mapping investment fund returns to their costs and asset allocation could provide policymakers with guidance in identifying products that would be eligible to be held in SIAs. There are three key criteria for identifying eligible investment funds: (i) fund performance, to ensure benefits for investors; (ii) low costs, to ensure that fees and charges do not unduly affect the ultimate returns received by savers; and (iii) the allocation of investments to Europe, to support the financing of the EU economy while maintaining an adequate level of diversification. **Chart 2.3** maps existing EU funds to these criteria. Looking at the 2025 annualised cumulative return growth over the past 25 years (**Chart 2.3**, left side), most investments with higher returns and lower costs are clustered in investment funds

⁴⁴ The reason why “shifting protection from deposits to markets”, i.e. weakening deposit insurance, is ranked lowest may be that such a measure could have negative financial stability implications.

⁴⁵ [Commission Recommendation of 30.9.2025 on Increasing the Availability of Savings and Investment Accounts with Simplified and Advantageous Tax Treatment.](#)

that have an EU investment share of less than 40%. However, **Chart 2.3** (right side) shows that larger funds, i.e. those that have a larger share of assets under management, are located in the lowest EU investments quadrant (0-10%). This indicates that increasing retail participation in the largest funds would lead to channelling financing outside the EU. Overall, focusing on funds which are 10-40% invested in EU assets would increase long-term returns for savers while pursuing the objective of financing EU objectives and maintaining a high degree of diversification. Focusing on a level of investment in EU assets in this range would therefore maximise benefits for both individuals and the EU economy as a whole. At the same time, removing obstacles to market consolidation could provide a particular boost to larger funds in the EU, enabling economies of scale which could ultimately lead to lower fees for savers. In this context, the latest Commission proposals to simplify and streamline fund authorisation procedures, facilitate cross-border financial services and increase trust in the passporting system are a welcome step towards further market integration.⁴⁶

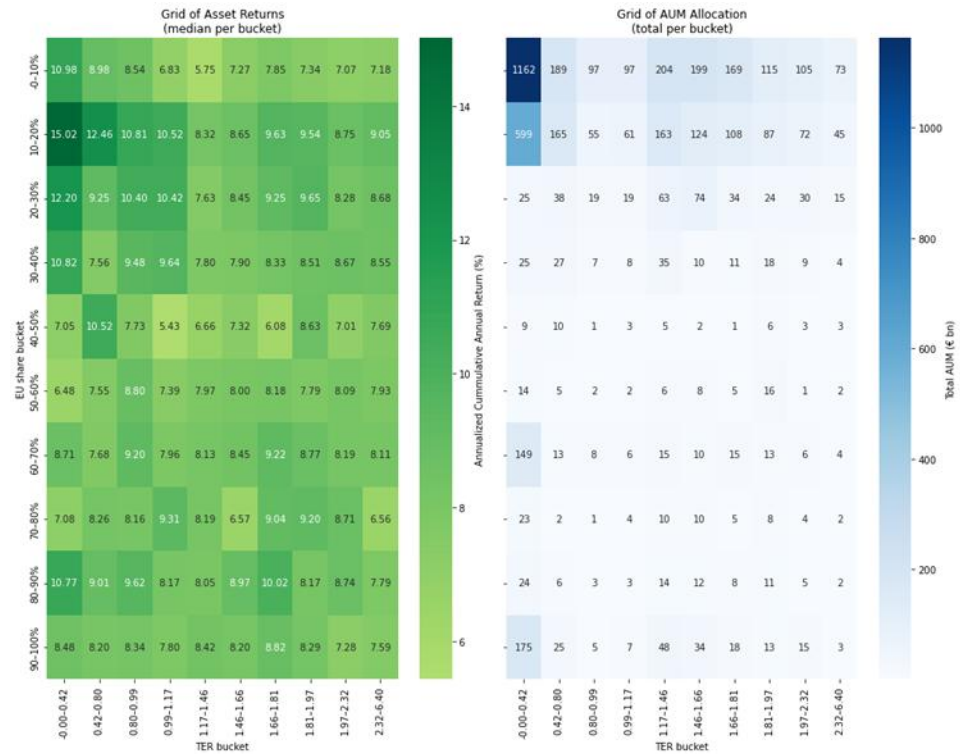
⁴⁶ See the European Commission's [communication of December 2025 on the market integration package](#).

Chart 2.3

Allocation of equity and mixed funds sold to EU retail investors: investment returns and assets under management by share of EU investment

Grid of asset returns (median per bucket) (green, left) and grid of AuM allocation (total per bucket) (blue, right)

(x-axes of both grids: fund costs expressed as TER bucket, percentages; left-hand scale of the grid of asset returns: EU share bucket, percentages; right-hand scale of the grid of asset returns: annualised cumulative annual return, percentages; right-hand scale of the grid of AuM allocation: total AuM, € billions)



Source: LSEG Lipper.

Notes: The returns were estimated on equity and mixed UCITS funds and computed as annualised cumulative growth rates of annual returns over the period 2000-25. AuM stands for assets under management and the volumes reported are at November 2025; TER stands for total expense ratio. "share of EU investment" refers to the share of assets under management invested by funds in EU countries.

The various elements of the Commission's recently launched initiatives are interlinked and mutually reinforcing. They include measures to promote the growth of supplementary pensions and encourage long-term individual participation in capital markets. They also comprise the Commission's retail investment strategy, aimed at streamlining investor protection rules and enhancing the clarity and accessibility of standardised information on retail investment products, and the Communication on a Financial Literacy Strategy for the EU⁴⁷, which seeks to empower citizens with the knowledge and skills needed to make informed financial decisions.

⁴⁷ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on a Financial Literacy Strategy for the EU.

Box 3

Euro area household savings allocation and the role of taxation

Prepared by Elena Banu, Johanne Evrard and Michael Wedow

One objective of the savings and investments union (SIU) agenda is to increase retail participation in EU capital markets with a view to raising returns for savers and deepening capital markets. Taxation policies can affect both the allocation of savings across borders and savers' investment decisions. Currently, inefficient procedures regarding withholding taxes (WHT) create frictions that act as a barrier to cross-border investment throughout the EU, contributing to home bias and limiting the efficient allocation of capital across the bloc. Addressing this issue is key to fostering deeper financial integration and more effective allocation of savings in the EU. In addition, public policies, such as introducing savings and investment accounts that are transparent and easy to use, can address some of the barriers to increased retail participation in capital markets, while providing benefits for savers and the financing of European firms. Granting capital gains tax relief may provide some incentive to shift savings towards capital markets. The literature, on the other hand, indicates that the impact is likely to be modest, reflecting the persistent strong preference of households for deposits, despite the substantial difference in yields between low-return deposits and higher-return equity investments. There are a variety of reasons for this, including the level of financial literacy, access to adequate information and the structure of pension systems. Understanding these dynamics highlights that, besides the level of tax rates, it is crucial to consider the method of taxation in order to assess the design of potential tax incentives.

Tax processes in the case of cross-border investment remain a key barrier for the integration of capital markets across the EU. Many EU Member States levy taxes on dividends and interest paid to cross-border investors, who must also pay income tax on capital income from abroad in their country of residence, leading to double taxation. Since taxation remains a national competence, bilateral treaties are used to limit double taxation. These treaties envisage two ways of addressing the issue: (i) refunds, whereby investors can claim a reimbursement to the level of the withholding tax laid down in the applicable double tax agreement; and (ii) relief at source, whereby the reduced rate or exemption is applied directly when the dividend or interest is paid. In some EU countries, domestic WHT rates for cross-border dividend or interest payments align with rates in double tax treaties (DTTs), eliminating the need for refunds. However, a large number of countries (Belgium, Denmark, Germany, Ireland, Spain, France, Italy, Austria, Poland, Portugal, Slovenia, Finland and Sweden) have higher domestic WHT rates for cross-border dividends than those in DTTs.⁴⁸ In addition, WHT relief procedures differ greatly across Member States, making them lengthy, costly and prone to fraud.⁴⁹ The complete elimination of double taxation would ultimately be subject to the tax legislation of the Member State where the income recipient is resident.

Addressing inefficient double taxation within the EU could enhance the allocation of savings across Member States. The academic literature generally finds that withholding taxes can have a

⁴⁸ In the case of interest payments, the number of countries having a higher domestic rate compared with the conventional rate is lower, as the majority of countries exempt cross-border interest payments under their domestic rules. See “[New EU system for the avoidance of double taxation and prevention of tax abuse in the field of withholding taxes \(WHT\)](#)”, *Commission Staff Working Document – Impact Assessment Report*, European Commission, 2023.

⁴⁹ For an illustration of the costs and cumbersome processes linked to WHT refund procedures, see “[Withholding taxes on dividends in the European Union: An uphill battle for individual shareholders](#)”, Better Finance/DSW, May 2023.

negative impact on investment.⁵⁰ By reducing the after-tax return on investments, withholding taxes may discourage both domestic and foreign investors, leading to lower capital flows and diminished market efficiency.⁵¹ Additionally, even when procedures exist to recuperate amounts that are unduly taxed, they can increase compliance costs and complexity for taxpayers, potentially deterring economic activity and investment decisions.⁵² This suggests that existing refund systems should at least be simplified, or ideally replaced by relief at source system.⁵³ The Faster and Safer Tax Relief of Excess Withholding Taxes (FASTER) Directive⁵⁴ will help to streamline and harmonise withholding tax relief procedures across the EU, reducing complexity and processing times. In its impact assessment underlying the proposal in 2022,⁵⁵ the European Commission estimated the cost of inefficient WHT procedures to amount to €6.62 billion per year for investors. This total includes foregone tax relief as investors fail to claim refunds due to complex processes or insufficient information, opportunity costs stemming from inefficient procedures and incurred costs in refund procedures. The Directive agreed by co-legislators does not, however, require Member States to introduce a relief at source system.⁵⁶ It also does not change the fact that taxation of cross-border investments within the EU still varies and that investing in another EU country remains more costly than investing at home, which ultimately has a negative impact on the integration of capital markets and the cross-border allocation of savings. Furthermore, with reference to digital tax residence certificate, the Directive leaves discretionary power to EU countries administration. Some non-EU countries offer a relief at source system which spares investors from reclaiming taxes where a DTT is in place. This means that WHT procedures across EU countries can be more complicated and less efficient than those in other jurisdictions such as the United States, the United Kingdom or China.⁵⁷ Policies to incentivise retail participation in capital markets should therefore be

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- ⁵⁰ See Chan, K., Covrig, V. and Ng, L., “[What Determines the Domestic Bias and Foreign Bias? Evidence from Mutual Fund Equity Allocations Worldwide](#)”, *The Journal of Finance*, Vol. 60, Issue 3, 2005, pp. 1495-1534; based on a sample of mutual funds from 26 developed and developing countries, the authors find that countries with higher withholding taxes receive less foreign equity investment. Similar evidence can be found in Pellegrino, B., Spolaore, E. and Wacziarg, R., “[Barriers to Global Capital Allocation](#)”, *The Quarterly Journal of Economics*, Vol. 140, Issue 4, 2005, pp. 2067-3131; using a new bilateral tax dataset and a general equilibrium model of portfolio choice, the authors show that capital-income tax wedges (including withholding taxes) are negatively associated with bilateral portfolio positions.
- ⁵¹ See Fatica, S. et al., “[Economic Effects of Simplified Procedures for Claiming Cross-Border Withholding Taxes](#)”, *JRC Working Papers in Taxation and Structural Reforms*, No 09/2023, European Commission, 2023. Using EU foreign portfolio investment (FPI) data for 83 countries (2013-20), the authors find that higher non-refundable withholding taxes reduce bilateral equity and debt FPI stocks; for example, a 10 percentage point cut in non-refundable withholding taxes increases the FPI stock of equity holdings by 8.2%.
- ⁵² Jacob, M. and Todtenhaupt, M., *Withholding Taxes, Compliance Cost and Foreign Portfolio Investment*, 30 March 2020. The authors examine the effect of compliance frictions in reclaiming foreign withholding tax overpayments and find that simplifying the reclaim process through a relief at source mechanism could increase foreign portfolio investments by about 7.6%.
- ⁵³ See [AMI-SeCo's response to the public consultation on withholding tax procedures](#), June 2022, calling for a robust, common framework for WHT relief at source based on fully harmonised definitions, procedures and reporting/information exchange.
- ⁵⁴ [Council Directive \(EU\) 2025/50 of 10 December 2024 on faster and safer relief of excess withholding taxes](#) (OJ L, 2025/50, 10.1.2025). Member States will have to transpose the directive into national legislation by 31 December 2028, and the new rules will only become applicable from 1 January 2030.
- ⁵⁵ See “[New EU system for the avoidance of double taxation and prevention of tax abuse in the field of withholding taxes \(WHT\)](#)”, *Commission Staff Working Document – Impact Assessment Report*, European Commission, 2023.
- ⁵⁶ Several EU countries, such as Denmark, Germany, Spain and Austria, do not have a relief at source system.
- ⁵⁷ The United States, the United Kingdom and China offer relief at source for withholding taxes on income from capital investments under certain double tax agreements which are bilaterally negotiated (see [Double taxation Conventions](#) on the European Commission's website). A [survey by Better Finance/DSW](#) found that Switzerland, the United States, Norway and the United Kingdom are perceived as the most “investor”-friendly destinations for investment thanks to smooth procedures – ahead of EU countries.

advanced in parallel with addressing these distortions to facilitate investment within Europe. Furthermore, inefficient WHT procedures continue to be a major barrier for collateral management and mobility in particular – impeding the cross-border functioning of EU capital markets.⁵⁸

Introducing savings and investment accounts (SIAs) is one way to both promote the development of capital markets and increase retail participation in those markets.⁵⁹ SIAs are simplified, user-friendly and often tax-advantaged investment platforms or products introduced under government programmes and provided by financial intermediaries, enabling individuals to invest in financial instruments such as shares, bonds and investment funds.⁶⁰ Sweden's Investeringssparkonto (ISK) investment savings account is often cited as a blueprint for national initiatives aimed at increasing retail participation. The ISK is designed as a simple and flexible account (e.g. there are no deposit limits, no minimum holding period and virtually no restrictions on allocation of investments), making it attractive to access and use. It has the highest take-up rate in the EU (45%).⁶¹ By lowering some of the barriers to retail participation, the accounts aim to increase savers' experience of investing in capital markets and improve financial literacy.

Taxation is one of the many policies that affect the level and allocation of household savings. The institutional and social policies of a given country – including pension schemes, welfare services and social insurance – as well as personal events such as inter-generational transfers are key determinants of the saving rate.⁶² In addition, the specific tax treatment of financial products can play a role in savers' allocation, leading to calls for beneficial tax treatment for SIAs. Despite the large difference in yields between deposit rates and equity returns, however, deposits remain a popular destination for savings in the euro area. Analysis of a recent ECB survey⁶³ indicates that households mainly save due to precautionary reasons, Ricardian motives⁶⁴ (linked to concerns about income risk, government benefits and taxes) and savings by habit, while saving for future returns through intertemporal substitution is less important. In this context, understanding how taxation can provide incentives for increased capital market participation is key.

Countries can tax investment income under the same or a different approach to labour income, with saving accounts falling typically under preferential regimes than regular investments. Taxation of personal income generally follows one of two broad approaches: (i) under a comprehensive income tax approach, labour and capital income are taxed together at progressive

⁵⁸ See [The AMI-SeCo's observations and recommendations on the proposal on Faster and Safer Relief of Excess Withholding Taxes](#), 17 November 2023.

⁵⁹ The Commission recommends Member States to set up SIAs with the following characteristics: low costs, portability across the EU, ease of asset transfers across providers, streamlined tax processes and possible tax advantages. See [Commission Recommendation on Increasing the Availability of Savings and Investment Accounts with Simplified and Advantageous Tax Treatment](#).

⁶⁰ These differ from retirement accounts, which function similarly but generally restrict withdrawal of savings until retirement and include specific tax treatments for the objective of increasing pension savings.

⁶¹ See Bierbaum, M., "Designing savings and investment accounts in the EU", *New Financial*, May 2025. See figure 3 of the report on p. 7. Take-up is computed as the number of people with a savings and investment account as a share of the national population aged 15+. See point 5 of the summary of the report for the main success factors behind the Swedish ISK.

⁶² For a review of the determinants of savings, see Boadway, R. and Wildasin, D., "Taxation and Savings: A Survey", *Fiscal Studies*, Vol. 15, No 3, 1994, pp. 19-63.

⁶³ See Dimou, M., Flaccadoro, M. and Gareis, J., "The household saving rate revisited: recent dynamics and underlying drivers", *Economic Bulletin*, Issue 8, ECB, 2025.

⁶⁴ Ricardian saving, derived from Ricardian Equivalence, is the theory that rational, forward-looking households save more today to offset future tax increases needed to pay off government debt, meaning government borrowing has little effect on aggregate demand; see Barro, R.J., "Are Government Bonds Net Wealth?", *Journal of Political Economy*, Vol. 82, No (6), 1974, pp. 1095-1117.

rates; and (ii) under a flat rate capital income tax approach, labour and capital income are taxed separately, with capital taxed at a flat rate.⁶⁵ Exceptions in the EU include the Netherlands, which follows a deemed-return approach (a presumptive return on savings is taxed rather than the actual return).⁶⁶ Ten out of 27 EU countries already have in place some form of tax-favoured savings and investment accounts, with four of these having a retirement focus.⁶⁷

The levels of taxation of investment products vary across the EU. Currently, interest on bank deposits, investment fund gains, dividends and capital gains are taxed at the same level in most Member States (Chart A, panel a). Some jurisdictions have progressive taxes (Spain) or specific exemptions for lower amounts of bank deposits (Belgium, Denmark), securities (Denmark), government bonds (Italy), EU securities holdings (Bulgaria) or non-domestic securities holdings (Cyprus). Several European countries, including Belgium (until 1 January 2026), the Czech Republic, Luxembourg, Slovakia and Slovenia, do not impose capital gains taxes on the sale of long-term shareholdings, in some cases subject to specific caps or conditions. Among the countries that do levy a capital gains tax, Greece and Hungary have the lowest rates at 15%.

The success of dedicated savings and investment accounts can be fostered by several factors. Countries like France, Hungary and Italy offer exemptions from investment income tax if the investment in the respective savings accounts is held for at least five years (Chart A, panel b). The attractiveness of the Swedish ISK stems from both the reduced tax rate and its simplicity: instead of taxing realised dividends/capital gains, it applies a simple annual tax based on the account value. Sweden also introduced a tax-free base level of SEK 150,000 in 2025 (rising to SEK 300,000 from 2026), with a flat annual tax based on the Swedish government borrowing rate which applies to holdings above the base level.⁶⁸ The ISK is part of a broader context, including a highly developed system for long-term savings supported by a large funded pension system, and a high level of financial literacy fostered by an early exposure to capital markets. It also highlights that policies aimed at increasing retail participation are likely to take time to build savers' experience, trust and should offer simple, diversified and low-cost products to accommodate savers' preferences, risk tolerance and diversification of portfolios over extended periods.

⁶⁵ See "[Taxation of Household Savings](#)", *OECD Tax Policy Studies*, No 25, OECD, 2018.

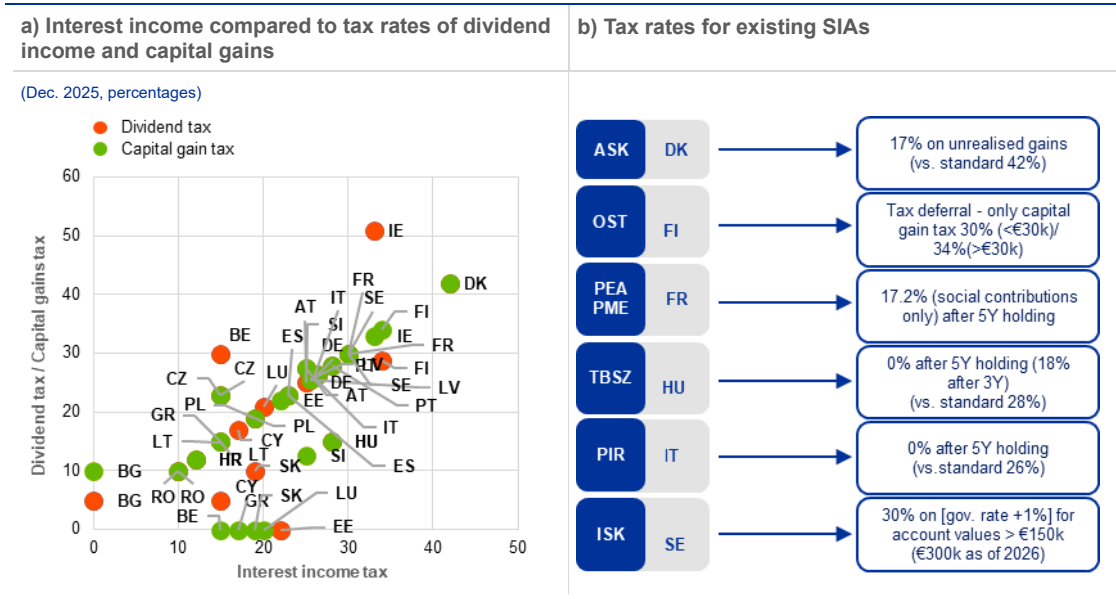
⁶⁶ Under the deemed-return approach, the Dutch Tax Administration assumes that the assets of a taxpayer generate a fixed, legal percentage of return, not based on actual earnings, but only on the type of asset. The system has been updated in 2026 to align more closely with market rates and property rights (taxpayers can now report their actual return if it is lower than the deemed return), but it still relies on assumptions. Assets are divided into three categories, each with its own assumed return rates: bank savings are assumed to have a low return (1.44% in 2025, projected similar for 2026), while capital investments are assumed to have a higher, fixed return (5.88% in 2025, 6% in 2026).

⁶⁷ See Bierbaum, M., *op. cit.* According to the [Commission staff working document](#) underpinning the proposal, Poland has also announced plans to introduce an SIA framework from 2026.

⁶⁸ Unlike ordinary securities accounts, ISKs are taxed at a lower annual standardised rate rather than as capital gains. This tax applies to assets above a certain threshold (SEK 150,000, or around €13,000) and is calculated as 30% of the government borrowing rate plus 1%, amounting to 0.888% in 2025. The tax is based on the average market value of assets above the threshold across four quarters. Taxes are generally lower than the standard Swedish capital gains tax of 30%, making ISKs favourable for individuals. Dividends on qualifying investments are tax-free, and portfolio reallocations have no tax consequences since sales are untaxed. However, capital losses cannot be deducted. The tax-free allowance will increase to SEK 300,000 (~€26,000) in 2026.

Chart A

Tax rates on interest income vs dividends and capital gains



Sources: PricewaterhouseCoopers and Tax Foundation.

Notes: In panel a), the labels in bold are associated with the capital gains tax and the others with the dividend tax; countries with the same rate of dividend tax and capital gains tax have overlapping labels, so they only appear once in the chart. Spain has progressive income bands for all types of investments (by income band, the tax level can be ~19/21/23/27/30%) and the chart presents the mid-point of 23%. Capital gains are subject to Luxembourg progressive income tax rates (0% to 45.78), provided the holding period is less than six months, the chart showing the value 0%. In Slovakia, shares are exempt from capital gains tax if they were held for more than one year and are not considered part of the taxpayer's business assets. In Slovenia, a capital gains rate of 0% is applied if the asset was held for more than 15 years; a rate of up to 25% is applied for periods less than 15 years. The chart shows a mid-point of 12.5%. In France, exceptional surtax on high income and differential contribution on high incomes are applicable in addition to the 30% income tax. The following abbreviations are used in panel b) Aktiesparekonto (ASK), Osakesäästötili (OST), Plan d'Épargne Actions (PEA) and PEA-PME dedicated to SME companies, Tartós Befektetési Számla (TBSZ), Piani Individuali di Risparmio (PIR), Investeringssparkonto (ISK).

Besides the level of taxation, the method of taxation can also affect capital market

participation and lead to different impacts in terms of foregone tax revenue or the costs associated with incentives provided.

Countries with some of the highest levels of tax (Chart A, panel a) have highly developed capital markets (Ireland, Denmark, Sweden), while countries with low tax levels tend to be those with less sophisticated markets. Similarly, there does not seem to be a correlation between having a more beneficial tax rate for dividends or capital gains relative to bank deposits (Bulgaria, the Czech Republic, Belgium, Ireland) and the level of capital market development. To attract new retail investors to capital markets, savings products must be simple, accessible and affordable. Incentives such as tax advantages, if used, should be tailored to encourage new savers rather than benefiting existing investors. Therefore, it is worth also looking at the method of taxation to foster capital market participation and financial literacy. Elements such as tax exemptions and deferrals can act as incentives, but the transmission channel to retail participation can be quite different depending on the method and needs to be balanced with the fiscal implications.

- Tax allowances** reduce the taxable income base by a set amount (e.g. deductible contributions to a savings product) before the marginal tax rate is applied. They have a stronger impact on the participation of higher-income individuals to capital markets, who typically face higher tax rates. The implementation of this method can, however, become too complex for cross-border taxpayers, since it requires alignment of overall personal income and overall tax rates which may differ across countries. It may also result ineffective to increase the participation of low earners, who may already benefit from preferential tax income brackets.

- **Tax exemptions** mean that the income generated by the savings and investment account (interest or dividend returns, or capital gains) is not taxed. This method can be highly effective in increasing broad retail participation if designed in a simple manner, but are typically capped to contain their fiscal impact. Forgoing tax on large investment returns may not be sustainable for the public purse.
 - **Tax deferrals** delay taxation until funds are withdrawn and/or returns are distributed. They are powerful ways of incentivising long-term investments and have often been used to incentivise pension savings. Limits need to be imposed to avoid that investors roll assets from one deferred tax to another (or switch providers/countries) and never face a taxable withdrawal.
 - **Uniform flat tax** is a tax applied in a standardised way either to the income generated or to the value of assets held in the account. This approach is simple to follow, ensures market neutrality and reduces arbitrage. While it can increase participation to some extent, it is also less targeted and therefore has a potentially larger fiscal impact.
-

2.5 Citizens and savings – pension systems

Households in the EU mainly save for precautionary reasons (“saving for a rainy day”) and for long-term planning, particularly retirement planning.⁶⁹ To meet these retirement savings needs, households largely depend on state pension systems (Pillar I) as the foundation for their essential life-cycle savings. Occupational pensions (Pillar II) and private pensions (Pillar III) play a smaller role.

State pensions in Europe largely operate on a pay-as-you-go (PAYG) basis without accumulating capital market assets, while occupational and private pensions are prefunded, investing significant resources in capital markets (Table 4). Countries with advanced Pillar II and Pillar III systems (in addition to Pillar I systems), such as the United States, Canada, the Netherlands, Denmark and Sweden, benefit from these prefunded models, as they increase retirement adequacy, improve macroeconomic resilience and support capital market development. For instance, Pillar II assets in the Netherlands exceed 150% of annual GDP, illustrating their role in fostering long-term investment pools.

⁶⁹ See Horioka, C.Y. and Ventura, L., “Why Do Europeans Save? Micro-Evidence From the Household Finance and Consumption Survey”, *Review of Income and Wealth*, Vol. 71, Issue 2, 2025.

Table 4
The three pillars of pension provision

Feature	Pillar 1: Public	Pillar 2: Occupational	Pillar 3: Private
Mandatory	Yes	Varies (mandatory in some countries, voluntary in others)	No
Financing	PAYG (current contributions finance current retirees)	Funded (employer/employee contributions invested)	Funded (individual contributions invested)
Coverage	Universal	Employees working in participating firms/sectors (and not opting out)	Individuals who opt in
Objective	Basic income, poverty prevention	Supplement income, maintain living standards	Additional flexibility, personal choice
Benefit structures	Earnings-related PAYG pensions (DB), NDC pensions, basic or flat-rate pensions, minimum pensions/guaranteed pensions, social assistance pensions (non-contributory)	Occupational defined contribution DC or DB plans, collective or hybrid schemes, employer-provided group insurance products	IPPs, life insurance-based savings, tax-advantaged long-term savings accounts, retail investment products used for retirement
Fosters capital market development	No	Yes	Yes

Source: ECB.
Notes: DB stands for defined benefit; DC stands for defined contribution; IPP stands for individual pension plan; NDC stands for notional defined contribution; PAYG stands for pay-as-you-go.

Fully funded pension systems yield returns linked to the productivity of capital, often leading to better growth rates than those of PAYG systems, which are constrained by labour force and wage growth. While funded systems are not immune to demographic pressures, international diversification offers partial insulation from local ageing trends. In addition, the investment activities of Pillar II and Pillar III funds – such as allocations to venture capital, private equity and private debt – stimulate innovation, technology and economic growth, as seen in countries such as the Netherlands and Denmark, where pension assets contribute significantly to GDP⁷⁰ and equity market development.

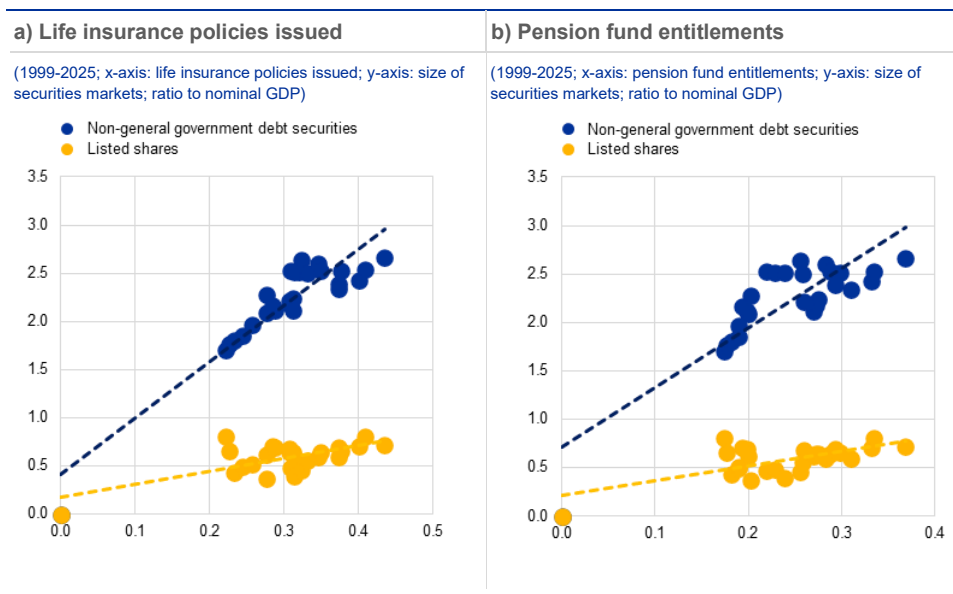
Benefit structures under Pillar II and Pillar III shape the development and depth of capital markets. Pension funds, with their long-term investment horizons, can play a significant role in deepening capital markets, fostering liquidity, market discipline and economic innovation. Life insurance companies are pivotal to the development of debt securities markets because their business model requires the long-term investment of premiums, providing a steady, high-volume demand for corporate and government bonds. They act as major institutional investors that increase market depth, lengthen security maturities and provide liquidity to corporate bond markets.⁷¹ Evidence for this can be observed even for the euro area, where pension funds are well developed in only a few countries, and life insurance companies play an important role (**Chart 2.4**).

⁷⁰ Total assets managed by pension providers represented 207% and 151% of GDP at the end of 2024 for Denmark and the Netherlands respectively. See OECD, “Pension Markets in Focus 2025”, 2025.

⁷¹ See the special feature entitled “The importance of insurance companies for financial stability”, *Financial Stability Review*, ECB, December 2009.

Chart 2.4

Links between household pension and life insurance growth and financial market development in the euro area



Sources: ECB and ECB calculations.

Pension funds have to contend with the inconsistent interpretation of the prudent person principle across Member States, which limits diversification into equities. The prudent person principle – embedded in Solvency II for insurers and in IORP II for occupational pension funds – requires institutions to invest only in assets whose risks they can properly identify, measure, monitor and manage. The prudent person principle itself is not the barrier. The issue is how differently Member States interpret and enforce the principle, which leads to uneven supervisory expectations, de facto constraints on equity exposure in some jurisdictions, reduced cross-EU consistency in pension fund investment strategies and limited diversification into equities for funds operating under more conservative national regimes.⁷²

Additionally, a substantial portion of European pension savings flows to non-EU markets, such as the United States and Asia.⁷³ This situation reflects limited capacity and investment opportunities within EU capital markets, but it has merits in terms of portfolio diversification. Strengthening EU capital markets is essential to retaining pension savings within Europe, offering households competitive risk-return

⁷² See EIOPA, “Peer Review Report on the Supervision of the Prudent Person Principle under Solvency II”, 2024. This report found that supervising this principle-based requirement was frequently mentioned by national authorities as challenging. The report identified areas requiring further action in several Member States, particularly regarding non-traditional or complex assets. Industry bodies such as PensionsEurope have noted that existing limitations on riskier investments, such as private equity and venture capital, are often rooted in national legislation. Pension funds in countries using a more principle-based, qualitative approach to personal pensions tend to be less constrained. See PensionsEurope, “PensionsEurope answer to the call for evidence on supplementary pensions”, 2025.

⁷³ EIOPA’s latest factsheet on IORPs, based on 2024 data, provides insights into how European IORPs allocate the approximately €2.7 trillion they manage across different asset types and jurisdictions.

profiles while aligning investments with strategic priorities such as green and digital transitions.

EU pension systems remain under Member States' jurisdiction, with the EU playing a complementary role in cross-border mobility, consumer protection and the Internal Market. The EU has established minimum requirements for Institutions for Occupational Retirement Provision (IORPs). These are rules that set common standards for the governance, risk management and transparency of occupational pension funds to better protect members and beneficiaries. It has also created the pan-European Personal Pension Product (PEPP). This is a voluntary, portable and standardised EU-wide personal pension product designed to help individuals save for retirement across borders under a single framework.

The Commission has proposed targeted measures to boost supplementary pensions and enhance transparency and efficiency in pension systems. They are part of the Commission's November 2025 proposals⁷⁴ which are aimed at strengthening both the demand for and supply of supplementary pensions, addressing demographic shifts and fostering long-term capital mobilisation. The measures include the following.

- **Clarifying the prudent person principle:** The Commission's proposals aim to harmonise the interpretation of this principle across Member States, enabling pension schemes to diversify investments into equity, including private and listed equity. This will help citizens achieve higher long-term returns and unlock new sources of financing for the EU economy.

Modernising the IORP II Directive⁷⁵: To unlock the potential of occupational pensions, the Commission proposes strengthening and modernising the framework to further support efficiency, scale and trust in supplementary pensions.

Revamping the PEPP Regulation⁷⁶: To make PEPPs more accessible and cost-effective, the Commission proposes a simplified "Basic PEPP" invested in straightforward financial assets, alongside "tailored" PEPPs for savers requiring more complex options with guarantees. These changes are aimed at boosting PEPP adoption.

- **Promoting transparency and tracking systems:** Comprehensive pension tracking systems and dashboards have been proposed as a means of providing citizens with clear insights into their pension rights and projected benefits. This could improve awareness and address the issue of low participation in supplementary pension schemes. National dashboards will also feed into an

⁷⁴ See "Commission proposes to boost supplementary pensions to help ensure adequate retirement income", press release, European Commission, 20 November 2025.

⁷⁵ Directive (EU) 2016/2341 of the European Parliament and of the Council of 14 December 2016 on the activities and supervision of institutions for occupational retirement provision (IORPs) (OJ L 354, 23.12.2016, p. 37).

⁷⁶ Regulation (EU) 2019/1238 of the European Parliament and of the Council of 20 June 2019 on a pan-European Personal Pension Product (PEPP) (OJ L 198, 25.7.2019, p. 1).

EU-level pension dashboard to support policymakers in assessing coverage, adequacy and sustainability.

- **Encouraging auto-enrolment:** Automatically including workers in supplementary pension schemes, with the option for them to opt out, is recommended as a means of achieving greater participation in supplementary pension schemes and increasing the scale of supplementary pensions markets. This approach draws on lessons from successful EU practices and global examples.

To better retain pension savings within the EU, policymakers must ensure that European capital markets offer competitive returns and diverse opportunities by lowering fees, simplifying products, improving retail access and providing targeted tax incentives. At the same time, the EU needs measures that draw more institutional capital into European assets – including clearer prudential rules that support long-term investment, a stronger pipeline of high-quality sustainable and strategic projects, and deeper cross-border market integration – so that both European and international pension funds see Europe as an attractive destination for long-term investment. These efforts will reinforce the SIU strategy’s goal of mobilising private capital for sustainability, innovation and other strategic priorities.

Mobilising pension-related savings is vital for addressing demographic and strategic challenges. Europe must mobilise far more pension-related savings, because an ageing population is straining public pension systems. At the same time, the EU needs deep, resilient capital markets to finance its green and digital transitions, strengthen economic sovereignty and enable it to remain competitive with global economic powers. The Commission’s proposals provide a comprehensive framework to modernise supplementary pensions, unlock long-term capital and enhance citizens’ financial security.

Transitioning from PAYG systems to funded pension models (Pillars II and III) presents significant challenges, including high upfront costs, exposure to market risks, potential inequality in savings accumulation and administrative complexities. Strengthening the funded Pillars II and III entails significant transition costs, as governments must continue financing current PAYG pensions while diverting contributions into new funded schemes. These reforms also create distributional challenges across and within generations, expose retirement incomes to greater market risk and require substantial administrative capacity to manage new systems effectively. Without careful design, high fees, political reversals and implementation complexity can erode the intended fiscal relief for Pillar I. However, strengthening funded models offers notable benefits, such as improved financial sustainability, by reducing reliance on PAYG systems, increasing pension coverage through auto-enrolment⁷⁷ and mobilising long-term capital to support economic growth and strategic priorities. To navigate the resulting trade-offs, policymakers must prioritise equitable designs, promote financial literacy and safeguard returns through prudent investment regulations and risk-sharing mechanisms. Achieving this

⁷⁷ Auto-enrolment refers to the automatic inclusion of workers in supplementary pensions, with the full freedom for individuals to opt out.

balance is essential for creating resilient, inclusive and impactful pension frameworks.

2.6 Investments and financing – the role of private markets

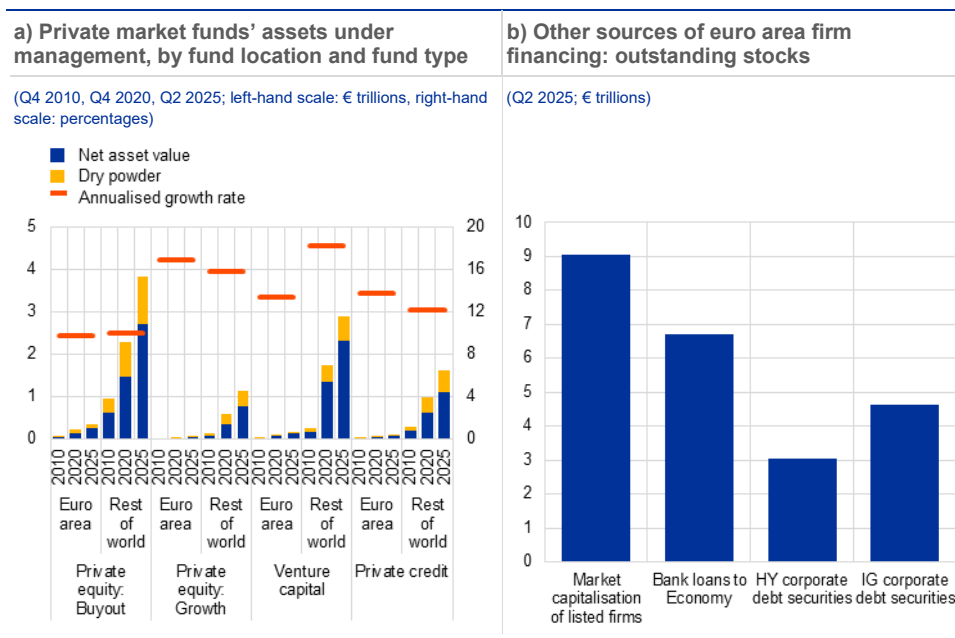
Euro area private markets remain small but have grown significantly in recent years, providing companies with alternative funding sources beyond public financial markets and bank loans. Private markets are currently small relative to public markets and bank lending in the euro area. However, they have grown significantly since 2010 (**Chart 2.5**).⁷⁸ Their growth has been driven both by investors seeking high returns, especially during the period of ultra-low interest rates, and by companies needing to obtain finance more rapidly and flexibly. Private markets fulfil an important economic function in this regard, as they match the financing needs of riskier corporates with the risk-bearing capabilities of long-term investors and could thereby support the goals of the SIU.⁷⁹

⁷⁸ Private markets are characterised by strong cross-border links as euro area corporates receive a significant share of private market funding from global private market funds: 60-70% of private credit and private equity funding comes from non-euro area countries. At the same time, euro area investors invest significantly in global private market funds: 60% of investments from euro area investors go into funds located outside the euro area.

⁷⁹ For an introduction to private markets, see the special feature entitled “[Private markets, public risk? Financial stability implications of alternative funding sources](#)”, *Financial Stability Review*, ECB, May 2024.

Chart 2.5

Private markets in the euro area remain small compared with public financial markets and bank financing



Sources: PitchBook Data Inc., a Morningstar company, Bloomberg Finance L.P., ECB and ECB calculations.
 Notes: Panel a: private equity is split by funds focused on buyout and growth strategies. Funds are segmented by the location they are managed from. The red line shows the compound annual growth rate of assets under management between Q4 2010 and Q2 2025 for funds split by location and fund type. "Rest of world" includes all funds located in non-euro area countries. Assets under management of a private fund can be split into the net asset value of the fund's portfolio and its "dry powder" – capital that has been committed but not yet called. Panel b: listed firms are euro area-domiciled constituents of the STOXX Europe Total Market Index as of Q2 2025. As market capitalisation is shown, the size is affected by valuation effects. The data on outstanding debt securities are from Bloomberg. The bonds universe is filtered for country of risk including all euro area countries and the ratings are divided into high-yield and investment grade. "Outstanding HY corporate debt securities" includes companies which are not rated. HY stands for high-yield; IG stands for investment grade.

Private markets focus on more innovative sectors and tend to finance companies that are smaller than those issuing public equity or corporate bonds.

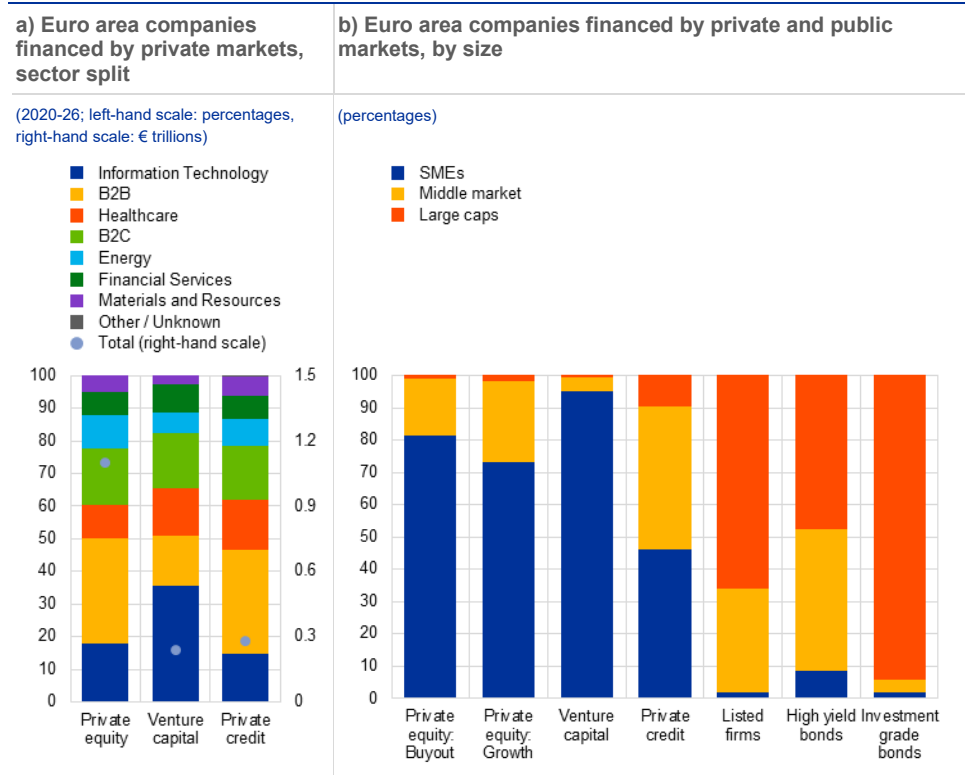
Private market funding seems concentrated in sectors that are more innovative, such as business products and services, health care and information technology (Chart 2.6, panel a). Companies within these sectors may find it difficult to obtain bank loans, as banks often rely on collateral, which more innovative and riskier firms may not be able to provide, and may prefer to finance companies that have lower risk profiles and are in the later stages of their corporate life cycles. While market intelligence suggests that, in recent years, private credit funds have moved further up the credit quality spectrum and into larger deals⁸⁰, the average company receiving private credit remains smaller than the average corporate bond issuer (Chart 2.6, panel b). As SMEs face hurdles to issuing corporate bonds because of their smaller size, lower ratings or lack of market recognition, private credit markets can provide an alternative funding source to smaller companies. In addition, SMEs' share in private equity and venture capital transactions is higher than that of listed stocks, which may mean there are obstacles preventing SMEs from obtaining a listing on public stock exchanges. These include administrative burdens, increased

⁸⁰ According to data from PitchBook covering a sample of 258 deals, median private credit deals in the euro area increased from €75 million in 2021 to €168 million in 2023.

disclosure requirements, valuation concerns or a fear of less strategic control over the company.

Chart 2.6

SMEs focus on innovative sectors and make up a higher share of all euro area companies that receive financing from private markets



Sources: PitchBook Data Inc., a Morningstar company, Bloomberg Finance L.P. and ECB calculations.
 Notes: Panel a: the industry classification system developed by PitchBook is very similar to the Global Industry Classification Standards (GICS). Industry sectors as defined by Pitchbook include business products and services (B2B), consumer products and services (B2C), energy, financial services, health care, information technology, and materials and resources. B2B and B2C in the chart stand for business products and services (B2B) and consumer products and services (B2C). Only the primary industry sector is used. Funding volumes are based on deal volumes and refer to volumes of transactions financed, in whole or in part, through private equity, venture capital or private credit. Panel b: firms that have received funding, by funding source, between 1 January 2023 and 9 April 2026. Firms are divided into SMEs (€0-50 million), middle market firms (€50-1,000 million) and large-cap firms (above €1,000 million). "Listed firms" refers to companies included in the STOXX Europe Total Market Index as of 9 April 2026.

Corporates financed via private markets tend to demonstrate higher levels of productivity at the price of worse risk metrics. Companies with access to private market financing show significantly higher productivity levels than companies financed solely by banks.⁸¹ This can be due to the longer-term effects of increases in companies' intangible assets and the long-term investments that tend to follow after private market financing is added to a company's financing mix. Similarly, there may be a positive screening effect among private market participants, which may have higher risk-bearing capacities and have better incentives than banks to identify and finance innovative but riskier companies. However, corporates' risk metrics deteriorate after private market financing is added to their financing mix. For the median company, the entry of private markets is associated with higher indebtedness and decreased capacity to pay interest.

⁸¹ To read the full analysis, see the box entitled "Private markets: risks and benefits from financial diversification in the euro area", *Financial Stability Review*, ECB, May 2025.

Risk monitoring remains warranted, but the further growth of private markets could facilitate the financing of SMEs and thus help advance the SIU. Several developments and trends in private markets require continued monitoring to observe possible issues at an early stage. These include a deterioration in the quality of private credit, difficulties for private equity funds in exiting investments because of valuation concerns, and a move towards a higher liquidity mismatch as private markets increasingly fund themselves via retail markets. Concerns around high exposure to the software sector, which is under scrutiny due to advances in AI, has triggered a wave of redemption requests from semi-liquid private credit funds in the US since the start of the year. This has reinforced concerns around liquidity mismatches. Exposures of traditional financial entities such as insurers and banks appear limited on aggregate. However, opaqueness and data gaps may conceal risks and hinder a full assessment of the risks arising from interlinkages between private markets and traditional financial entities and there can also be indirect contagion channels. For the wider economy, private markets often link the risk-bearing capabilities of long-term investors with the financing of smaller, riskier and innovative firms that are important for future economic growth. In this respect, growth in euro area private markets can also support the development of the SIU in the euro area. Potential hurdles to that growth should be addressed. These hurdles include fragmented markets and tax regimes, weaker exit opportunities for private equity and venture capital funds due to less developed capital markets, and regulatory disincentives for institutional investors to invest in private markets. The recent proposals for the Solvency II Directive⁸² and the IORP Directive to encourage long-term equity investments could help drive up institutional investment in private equity and venture capital (see Box 4).

Box 4

Exploring the investor landscape for venture capital

Prepared by Elena Banu, Tanja Derin, Johanne Evrard, Claudia Lambert, Daniel Legran and Wagner Eduardo Schuster

As venture capital (VC) finances firms that have the potential to grow rapidly and substantially, it is a sector that could increase the productivity of the economy, while boosting strategic autonomy. This box examines VC fund investors, showing that the limited involvement of institutional investors with large financing firepower is one element that constrains VC funds from financing scale-ups in Europe. The analysis also shows that the European Investment Fund (EIF) plays a key role, which could be leveraged to crowd-in private investors. Finally, the VC fund landscape is mapped against the existing regulatory framework to inform the upcoming review of the framework. This will make it possible to better address the needs of EU VC fund managers and, in turn, potentially expand the availability of VC investment opportunities for investors. Overall, the investor landscape for VC funds affects the broader innovation financing ecosystem in Europe, which would benefit from policies addressing fragmentation within the Single Market.

⁸² Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) (OJ L 335, 17.12.2009, p. 1).

Europe lacks large-scale VC funds, which is part of a broader issue with the ecosystem for scale-ups that need access to significant financial resources if they are to grow and expand.

European firms report that they face challenges when it comes to both fundraising and exit opportunities in Europe.⁸³ In addition, limited or unattractive exit opportunities discourage investment in (late-stage) venture capital financing rounds in the first place. This is one of the reasons why many firms seek funding, and ultimately relocate, outside the EU. In turn, the lack of scale-up financing limits the pipeline of firms able to list on European markets, exacerbating exit-related challenges.⁸⁴ While early-stage financing is generally available in Europe, the scale-up investments required exceed the amounts individual VC funds in Europe can provide, as relatively small fund sizes combined with fragmentation of the European market makes it difficult for them to meet these large financing needs.⁸⁵ Improving access to and increasing the size of VC markets in Europe would enhance the ecosystem for scale-ups, while also benefiting the savings and investments union (SIU) agenda. The introduction of a 28th regime for corporate law would facilitate the cross-border scaling of venture capital investment by offering the option of a standardised set of rules for investments in non-listed companies.

As VC funds invest in productive sectors, they contribute to increasing competitiveness in the economy. US VC funds are larger and invest more domestically than their EU counterparts.

In general, VC funds finance high-risk, potentially high-reward projects, purchasing equity or equity-linked stakes in firms while they are still privately held. EU and US VC funds differ in terms of size, investment focus and geographical allocation. VC funds located in the United States are larger: total fund size amounts to approximately €930 billion in the United States, compared to roughly €150 billion in the EU.⁸⁶ They also invest around six times more than their EU counterparts.⁸⁷ Across both regions, the majority of VC funds' investments flow into the information technology sector (IT), particularly software, followed by the healthcare and business-to-consumer (B2C) sectors.⁸⁸ The sectoral composition, however, has evolved over time, with a notable reallocation towards IT investments in the United States,⁸⁹ a sector that has significantly driven the widening total factor productivity growth gap between the two economies.⁹⁰ The geographical destination of investments by US and EU VC funds also diverges markedly: between 2015 and

⁸³ See, for example, Botsari, A. and Lang, F., "EIF VC Survey 2024: Market sentiment", *Working Paper 2024/99*, European Investment Fund, 2024. This survey found that three out of the top four challenges currently present in the VC business are related to fundraising.

⁸⁴ See Böninghausen, B., Evrard, J., Gati, Z., Gori, S., Lambert, C., Legran, D., Schuster, W.E. and van Overbeek, F., "Should we mind the gap? An assessment of the benefits of equity markets and policy implications for Europe's capital markets union", *Occasional Paper Series*, No 373, ECB, August 2025.

⁸⁵ See Fratto, C., Gatti, M., Kivernyk, A., Sinnott, E. and van der Wielen, W., "The Scale-up Gap. Financial market constraints holding back innovative firms in the European union", *EIB Thematic Studies*, European Investment Bank, June 2024. Similarly, the *Draghi report* identified a lack of large-scale VC funds as a challenge for financing start-ups and enabling them to scale up to their full potential. See also Kukies, J. and Noyer, C., "Financing Innovative Ventures in Europe", *Final report of the FIVE taskforce*, Federal Ministry of Finance, Germany, January 2026.

⁸⁶ Based on PitchBook data. The sample includes funds classified as "VC type" and that have participated in at least one deal classified as a VC deal between 2015 and 2025. Funds are assigned to the United States or the EU based on their reported location.

⁸⁷ Considering total fund size (the total amount of capital committed by the fund's limited partners) and capital invested (the amount actually invested in firms) from 2015 to 2025, based on PitchBook data.

⁸⁸ For example, transportation, retail, services and restaurants.

⁸⁹ In the EU, investment in the B2C sector was more prominent until 2019 (B2C was the largest sector in 2016 and 2019). However, investment in the sector has declined substantially since then, representing less than 10% today (based on deal-level information from PitchBook Data, Inc.). By contrast, there has been a reallocation towards IT since 2019 in the United States, with VC investments in IT rising to over 75% in 2025, compared with around 40% in 2019.

⁹⁰ Corrado, C. and Hulten, C., "How Do You Measure a 'Technological Revolution'?", *American Economic Review*, Vol. 100, No 2, May 2010, pp 99-104.

2025, only about 20% of US VC funds' investments flowed out of the United States, while more than 50% of EU-located VC funds' total investments were in firms located outside the EU. This highlights another key issue: European firms face challenges scaling up through the Single Market, owing to barriers limiting their growth and expansion. This in turn restricts the pipeline of viable projects that VC funds can invest in.

End-investors in VC funds have a strategic impact on the performance of ventures, their likely exit options and hence the VC ecosystem more broadly.⁹¹ Institutional investors, such as pension funds, often bring significant financial means, stability and a long-term perspective, while family offices or high-net-worth individuals may provide more flexibility and risk tolerance. Moreover, the composition of the investor base can influence the types of start-ups targeted, the geographical focus and the risk appetite of a fund.⁹² As an investor, the public sector can steer investment towards strategic areas and augment the impact of private investment through co-investing. In order to assess a VC fund's potential impact within the broader ecosystem, it is important to understand the investor base.⁹³

Government entities dominate the EU investor base, while pension funds and foundations lead in the United States, highlighting a gap that European institutional investors could fill. Chart A shows how institutional investors play a less prominent role in the EU VC fund sector than in the United States. In Europe, government entities⁹⁴ collectively represent around one-third of total limited partners (LPs) – or investors – in VC funds.⁹⁵ By contrast, they account for 4% of LPs in the US market, where pension funds and foundations are the dominant group of institutional investors. Since investors tend to commit to funds located within their own jurisdiction,⁹⁶ the comparatively limited participation of EU institutional investors and the home bias of investors⁹⁷ has a direct impact on the depth of the EU VC market. In fact, the extensive involvement of government investments in Europe could highlight a market failure. Increasing the buy-in of EU institutional investors and addressing fragmentation in the sector would provide more firepower to EU-based VC funds. This would be particularly relevant for VC scale-up financing, given the larger amounts that institutional investors are able to commit and the greater financing needs of scale-up firms.⁹⁸

⁹¹ We refer here to investors who invest in VC funds and not to direct investment in start-ups.

⁹² See Gompers, P.A. and Lerner, J., *"The Venture Capital Cycle"*, 2nd Edition, The MIT Press, Cambridge, 2004.

⁹³ Studies also suggest that corporate investors or government entities may bring strategic advantages, such as industry expertise or access to networks that enhance a fund's ability to support companies in their portfolio. See Chemmanur, T.J., Loutskina, E. and Xian T., "Corporate Venture Capital, Value Creation, and Innovation", *The Review of Financial Studies*, Vol. 27, No 8, 2014, pp. 2434-2473.

⁹⁴ These include public entities such as the EIF, as well as promotional and development banks.

⁹⁵ LPs are entities or individuals that make a capital commitment into a VC fund but do not take part in the day-to-day investment decisions of that fund and have limited liability (capped to their capital commitment). For simplicity, the terms LP and "investor" are used interchangeably in this box.

⁹⁶ The great majority (approximately 70%) of the number of investment commitments from EU-based LPs are allocated to VC funds located within the EU (based on deal-level information from PitchBook Data, Inc.). This proportion is slightly higher (82%) for commitments from US-based LPs investing in US-based VC funds.

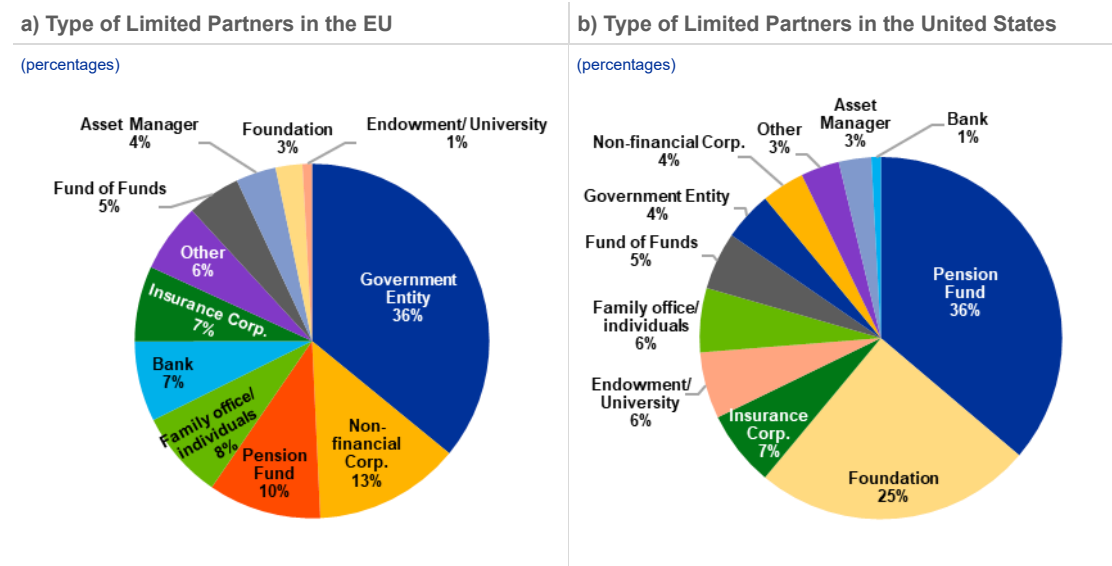
⁹⁷ See *"Making European Reforms a Success on the Ground"*, IMF Notes Volume 2025: Issue 005, discussing the low integration of venture capital market in Europe.

⁹⁸ Pension funds account for the largest group of LPs in terms of average commitment size in both the EU and the United States (€198 million and €291 million respectively). These figures are based on commitment amounts reported by PitchBook, where available. For missing commitment values, an estimation is used based on an equal allocation of the fund's total size across its reported LPs.

Chart A

VC fund investor base in the EU and the United States

LPs that committed capital to VC funds: 2015-25



Sources: PitchBook, a Morningstar company and ECB staff calculations.

Notes: Charts are constructed based on the location of the limited partners (LPs) that committed capital to VC funds, and include data from 2015 to 2025. The breakdown by LP type is constructed based on the number of investments made. Results are robust using estimated commitment sizes, relying on reported commitments where available and otherwise allocating fund size equally across LPs. The overall composition is kept unchanged, with the same LP types accounting for the largest shares, although the EU actually shows a higher share of pension funds (10% to 19%) and the United States a higher share of foundations (25% to 35%). LPs originally classified under other categories but corresponding to public-backed vehicles (i.e. entities with direct or indirect government ownership or primary public-sector funding) were reclassified as government entities. In the EU, over 50% of the original funds of funds reflect the scale of the EIF were reclassified as government entities.

Reforms to the regulatory framework in the United States played a key role in fostering the larger contribution of US pension funds to VC investments. The pension system in the United States underwent a series of reforms in the 1970s, notably through the implementation of the [Employee Retirement Income Security Act \(ERISA\)](#). A key element was the relaxation of the prudent person principle,⁹⁹ which ultimately encouraged mixed investment portfolios composed of relatively riskier instruments. Another key reform was the [National Securities Markets Improvement Act \(NSMIA\)](#) of 1996, which facilitated capital raising by deregulating some provisions applicable to private start-ups and private funds.¹⁰⁰

The EU today is in a similar position to that of the United States before the ERISA reform, with recent EU proposals aiming to increase the role of institutional investors. Across the various types of pension schemes in the United States, allocations to private equity (including VC) typically range from 5% to 15% (or more) of total assets,¹⁰¹ with some sources assessing the size of the allocation of pension funds to VC at 0.03% of total assets under management in the United

⁹⁹ This principle means that investments must be made in the best long-term interests of members and beneficiaries, taking account of risks, diversification and security.

¹⁰⁰ See Ewens, M. and Farre-Mensa, J., "The Deregulation of the Private Equity Markets and the Decline in IPOs", *The Review of Financial Studies*, Vol. 33, Issue 12, 2020. The authors found that NSMIA increased the supply of private capital to late-stage private start-ups, enabling them to grow significantly larger than private firms traditionally could. This has, however, shifted the balance between going public and staying private, creating a new equilibrium where fewer start-ups pursue IPOs, and those that do are older.

¹⁰¹ See "Venture & growth capital in Europe – mapping pension funds' attitudes", Pensions for Purpose, 2025. This was a contribution to the European Commission's [start-up and scale-up strategy](#).

States, versus 0.01% in Europe.¹⁰² While in the EU some private third-pillar pension funds invest in VC, the Institutions for Occupational Retirement Provision (IORP) Directive¹⁰³ places several constraints on such investments, in order to reduce risk for contributors. IORP entities allocate approximately 40% of their total assets to investment funds, but only 4% of these are alternative investment funds (including VC).¹⁰⁴ With its recent amendments to both the IORP Directive and the pan-European personal pension product (PEPP)¹⁰⁵ the European Commission clarified the prudent person principle,¹⁰⁶ with the aim of increasing investment into equity to help citizens earn higher long-term returns on their savings and free up new sources of financing for the EU economy. Similarly, the 2025 Solvency II review¹⁰⁷ aims to facilitate long-term equity investments.

In Europe, the EIF and government-sponsored entities act as the main investor in many funds and, along with other fund-of-fund investors, play a key role in the ecosystem.

A network analysis reveals the investment relations between investors and funds, as well as the connections, co-investment patterns and key hubs, providing insights into collaboration dynamics and influence within the ecosystem (Chart B, panel a).¹⁰⁸ The nodes represent investor type, with larger bubbles indicating investors' influence in terms of number of connections and importance. The EIF is the main government entity and acts as hub: apart from being connected to many investors, it also exhibits a high level of fundraising power as it is connected to many other central investors. Physical proximity between nodes indicates more clustered investors. The network of investors in EU VC funds is made up of a more limited number of nodes than in the United States, which leads to concentration among a few investors. This can have positive implications, such as more efficiency in raising funds, as certain investors gain extensive experience of VC investments. On the flipside, a concentrated network can amplify risks if dominant investors reduce their commitments or withdraw from the market. This highlights the importance of efforts made to crowd-in additional private investors into the EU VC ecosystem, in order to achieve more diversity. As an investment hub, the EIF can act as a signal of credibility and can quality for VC funds. This encourages other investors to participate, thereby strengthening the fundraising capacity of European funds.

Aggregating investments at the country level highlights the role played by the EIF in connecting investors across the EU, while cross-border investments are otherwise almost absent. Chart B, panel b shows that LPs from Luxembourg (where the EIF is located) appear in most cross-country pairs, showing strong connections with investors in Germany, Ireland and France. In this context, Luxembourg and Ireland are particularly relevant as the large investment

¹⁰² See "State of European Tech 2025: a roadmap to unlock further tech growth", Invest Europe, 2025.

¹⁰³ Directive (EU) 2016/2341 of the European Parliament and of the Council of 14 December 2016 on the activities and supervision of institutions for occupational retirement provision (IORPs) (recast) (Text with EEA relevance (OJ L 354, 23.12.2016, p. 37). The IORP Directive is aimed at minimum harmonisation and allows Member States to maintain a high level of flexibility. As a result, some Member States have implemented the rules in a more conservative manner than others. See, for reference, the [EIOPA peer review](#) on supervisory practices.

¹⁰⁴ See "Venture & growth capital in Europe – mapping pension funds' attitudes", Pensions for Purpose, 2025. This was a contribution to the European Commission's [start-up and scale-up strategy](#).

¹⁰⁵ See European Commission [proposals](#).

¹⁰⁶ The Communication has [clarified](#) that equity investments should be considered as part of pension funds' portfolios.

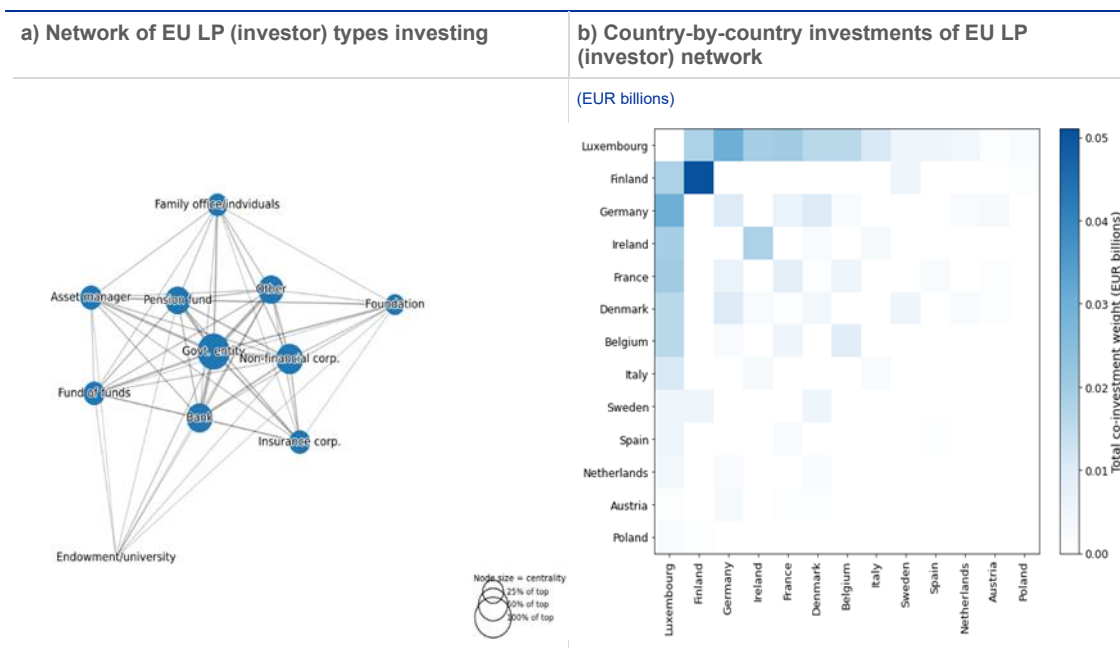
¹⁰⁷ See the European Commission's [review](#) of the Solvency II delegated regulation, which makes it easier for insurers to prove their long-term investment strategies. It expands asset scope to include unlisted equity, as long as the portfolio is properly diversified with safeguards to protect policyholders in severe stress scenarios, and provides a mandate for supervisors to monitor developments.

¹⁰⁸ For methodology, see Abreu, J. and Saito, S., "Unlocking the Power of Relationships: Limited Partner Networks and Performance in Private Equity", *SSRN Electronic Journal*, March 2025.

fund sector in both countries reflects an established network of service providers with experience in fund structuring and fundraising, flexible legal vehicles and tax treatment. The diagonal also shows that except for Finland, where national public funds-of-funds act as an anchor for investors, VC investors do not connect much domestically (Chart B, panel b).¹⁰⁹ The Chart also illustrates the limited market integration of investors in VC funds across Europe given the low cross-border activity beyond these country pairs. For fund managers investing cross border, limited access to local networks would appear to be a challenge, together with a lack of familiarity with foreign markets and the complexity of having to deal with tax and labour laws.¹¹⁰

Chart B

How do EU investors in VC funds connect? Network effects in the EU



Sources: PitchBook, a Morningstar company and ECB calculations. Data covers investments made over the period 2020-2025.

Notes: Panel a) shows the eigenvector centrality measure to highlight the vertices (types of LPs) that have the most influence in the network. The level of influence of a node comes from the connections it has with other influential vertices. We follow Abreu and Saito* to compute the eigenvector centrality measure. For a given year (2025 in this case), we use the investments over the past five years and we only consider LPs or types of LPs which have a minimum of five investments. In order to offer an aggregate presentation of results, we create the network on types of LPs instead of individual LPs. The edges represent the count of bilateral connections. The results do not significantly change when using the edges weighted by the estimated investment amount by each LP type in a given fund – taking the minimum among the LP types (this ensures the connection will not be overestimated if one LP/LP type invests a very small amount while the other invests a very large amount). The closer the bubbles, the more clustered the respective LP types. Panel b): the country-by-country matrix is based on the individual LP network, computed using the same principles as those applied in panel a). This matrix aggregates LP-level co-investments up to country pairs. As a result, first a network is created at the LP level, each LP is mapped to its country and then each weight of an LP-LP edge is added to the corresponding country pair. Darker colours signify a stronger connection, lighter colours a weaker connection.

*) Abreu, J. and Saito, S., "Unlocking the Power of Relationships: Limited Partner Networks and Performance in Private Equity", *SSRN Electronic Journal*, March 2025.

Broadening access to a lighter regulatory regime for VC funds and removing frictions to cross-border access could support the market. By default, venture capital funds registered in the EU fall under the Alternative Investment Fund framework,¹¹¹ which is mandatory for fund managers whose assets under management exceed €500 million and which imposes comprehensive requirements on authorisation, risk management and investor protection. For

¹⁰⁹ For more details on the Finnish VC landscape please see: Arnold et al (2024), [Stepping Up Venture Capital to Finance Innovation in Europe](#), IMF WP/24/146 and [KRR funds-of-funds](#).

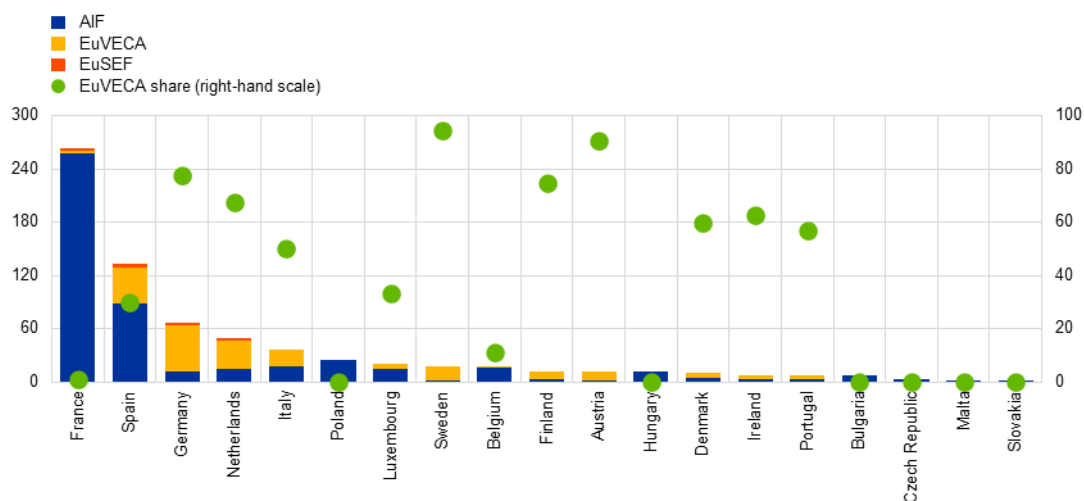
¹¹⁰ See, for example, "EIF VC/PE Barometer Survey Q4 2025", *Working Paper 2025/111*, EIF Market Assessment & Research, European Investment Fund, December 2025

¹¹¹ [Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations \(EC\) No 1060/2009 and \(EU\) No 1095/2010 Text with EEA relevance \(OJ L 174, 1.7.2011, p. 1\)](#).

smaller funds, the European Venture Capital (EuVECA) framework¹¹² presents an optional lighter regulatory regime to promote investment in start-ups and small businesses, provided they meet certain eligibility criteria. Furthermore, the European Social Entrepreneurship Funds (EuSEF) framework¹¹³ can be applicable in certain, more specific cases. All three regimes offer the benefit of passporting across the EU and restrict investments in VC to professional investors and, under certain conditions, to sophisticated retail investors. To assess which framework VC funds operate under, Chart C maps the EU-based VC funds identified in PitchBook with the European Securities and Markets Authority (ESMA) public register. The results show that around 69% of VC funds for which a regulatory label could be identified fall under the AIF regime, while around 29% are registered as EuVECA and 2% fall under EuSEF. The application of the EuVECA regime is unevenly distributed across countries. Higher use is observed in countries such as Germany, the Netherlands, Austria, Finland and Sweden, while in some larger markets, notably Spain and France, the EuVECA regime is only applied to a minority of VC funds. In several countries, no VC fund was found to operate under this framework. While reporting obligations are lighter under EuVECA than they are under AIF, the relatively widespread application of EuVECA in markets such as Germany, the Netherlands and Sweden suggests that such obligations are seen as generally sufficient for investors. This may also suggest that the supply of VC investment opportunities could potentially be boosted by making more fund managers eligible for EuVECA (e.g. by reviewing the conditions for the eligibility of the label, addressing operational barriers for its usability and improving its interaction with the AIFMD regime) in the context of the upcoming review of the framework. Making the framework more attractive for larger funds would also be in line with the objective of increasing available funding for the larger investment amounts required for scale-up financing.

Chart C
VC funds, by legal framework and country

(number of funds, percentage of total funds)



Source: ESMA, PitchBook, a Morningstar company and ECB calculations.

Notes: Based on 2,147 EU VC funds from PitchBook Data, Inc. 704 of these were matched to a fund in ESMA's public register with an AIF, EuVECA or EuSEF label, using fuzzy matching by fund name. Data was extracted on 16 April 2025. Results are broadly in line with the external study commissioned by the European Commission* on venture and growth capital funds. They support the conclusion that refinements to the EuVECA regime may be necessary to enable broader application and relevance in the context of expanding the capacity of VC financing in the EU. However, because the Commission's study relies

¹¹² Regulation (EU) No 345/2013 of the European Parliament and of the Council of 17 April 2013 on European venture capital funds Text with EEA relevance (OJ L 115, 25.4.2013, p. 1).

¹¹³ Regulation (EU) No 346/2013 of the European Parliament and of the Council of 17 April 2013 on European social entrepreneurship funds Text with EEA relevance (OJ L 115, 25.4.2013, p. 18).

on a different data provider (Dealroom), and because it covers a slightly different scope and therefore uses a different underlying sample from the analysis based on PitchBook data, the detailed results are not directly comparable.

*) European Commission, "Study on venture and growth capital funds", Directorate-General for Financial Stability, Financial Services and Capital Markets Union, 15 October 2025.

2.7 Integration and scale – post-trading infrastructure

2.7.1 State of play

Over the past two decades, substantial efforts have been made in the EU towards integrating the post-trading landscape. At the infrastructure and regulatory levels, progress has been achieved with (i) EU legislation to harmonise rules for wholesale market infrastructures (central counterparties, central securities depositories (CSDs) and payment systems)¹¹⁴, (ii) the establishment of the TARGET2-Securities (T2S) platform to facilitate the cross-border settlement of securities, and (iii) the creation and ongoing implementation of market standards in settlement and asset servicing. On the regulatory side, the Central Securities Depositories Regulation (CSDR) has strengthened the EU post-trade framework by introducing a harmonised authorisation and supervision regime for CSDs, as well as EU-wide prudential, organisational and conduct requirements. It has supported greater cross-border service provision by instituting passporting rules for CSDs and a right for issuers to choose where they issue securities, subject to certain conditions. The CSDR has also contributed to supervisory convergence through the involvement of the European System of Central Banks and ESMA, although ESMA's practical role in this area has so far remained more limited than in other sectors. In particular, the CSDR allows relevant authorities such as the Eurosystem, acting as central bank of issue, to provide opinions on CSDs' compliance to NCAs. With regard to infrastructure integration, the launch of T2S in 2015 marked a major milestone in post-trade integration. T2S provides a single pan-European settlement platform operated by the Eurosystem. The service has harmonised core settlement processes by replacing diverging national procedures, increased safety by enabling delivery-versus-payment in central bank money across participating markets and significantly reduced the technical and operational barriers to cross-border settlement.

However, persistent fragmentation limits the attractiveness of the European financial markets for investors. The post-trade landscape remains fragmented: securities settlement and asset servicing continue to be organised largely along national lines, with most Member States keeping a national CSD as well as national legal and tax frameworks with different rules and market practices. This

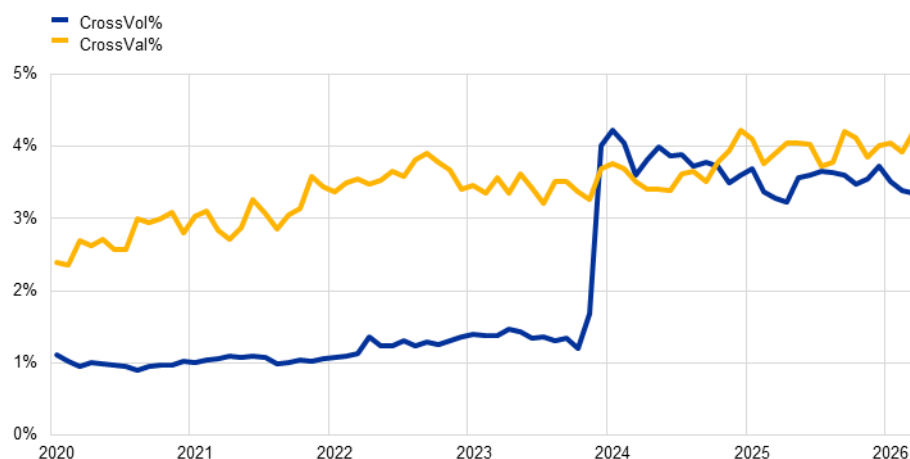
¹¹⁴ See the Central Securities Depositories Regulation (CSDR) – Regulation (EU) No 909/2014 of the European Parliament and of the Council of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories and amending Directives 98/26/EC and 2014/65/EU and Regulation (EU) No 236/2012 (OJ L 257, 28.8.2014, p. 1); the European Market Infrastructure Regulation (EMIR) – Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (OJ L 201, 27.7.2012, p. 1); and the ECB Regulation on oversight requirements for systemically important payment systems (SIPS Regulation) – Regulation of the European Central Bank (EU) No 795/2014 of 3 July 2014 on oversight requirements for systemically important payment systems (ECB/2014/28) (OJ L 217, 23.7.2014, p. 16).

fragmentation increases costs, complicates cross-border activity and limits the efficiency and attractiveness of EU capital markets, which contributes to the small size and reduced market liquidity of EU markets, particularly when compared with major peer jurisdictions with more integrated post-trade environments. Therefore, despite the progress achieved with the CSDR, national differences in supervisory practices and the persistence of national legal frameworks continue to restrict the full integration of post-trade services across Member States – notably by limiting CSD passporting and cross-border issuance. In practice, issuance for both sovereign and corporate issuers is largely tied to domestic markets, while cross-border investment is constrained by legal requirements (idiosyncratic requirements in national corporate and securities laws), tax processes and the inertia of legacy market practices that prove difficult to change. The CSDR does not address the lack of harmonisation of national corporate and securities laws, which creates barriers to the passporting of CSD services and the freedom of issuance, for instance by limiting the opportunities for issuers to issue in a CSD established in another Member State. This hampers competition between CSDs, and the post-trading landscape remains fragmented across many infrastructures. In addition, although T2S was a decisive step in settlement integration, participating in T2S or creating CSD links is not mandatory but is left as a business decision to be taken by CSDs. The platform has not yet fully achieved its purpose: transactions across CSDs still represent only a minor share of settlement activity on the platform, having increased only slightly over time (Chart 2.7). This indicates that there has been no significant take-up of cross-CSD settlement following the introduction of T2S, as behavioural and business barriers in settlement processes remain prevalent.

Chart 2.7
Cross-CSD settlement in T2S

T2S cross-CSD settlements as a share of all T2S settlements

(Jan. 2020-March 2026; percentages)



Sources: ECB internal data, TARGET operations and ECB calculations.

Finally, legal, regulatory and tax barriers remain key drivers of this fragmentation. Differences in national corporate law and securities law affect the processing of corporate events, the identification of beneficial owners and the enforceability of investor rights, making it difficult for infrastructures to integrate their

platforms across borders, even within cross-border groups. These divergences introduce legal uncertainty for cross-border investors and intermediaries and require market participants to maintain complex, jurisdiction-specific arrangements. Tax barriers, notably in the area of withholding tax relief and reclaim procedures, continue to create operational frictions and discourage cross-border investment by increasing costs and investment risk.

2.7.2 Current work to deepen market integration and leverage innovation

In 2025, EU policymakers announced important initiatives to deepen integration in the post-trade landscape and leverage technological innovation to improve the efficiency of post-trade services and, where possible, overcome technical barriers. The integration measures put forward as part of the

Commission's recent proposals represent an opportunity to address some of the barriers highlighted above.¹¹⁵ The ECB particularly welcomes the measures aimed at improving supervisory convergence under ESMA, facilitating cross-border service provision by CSDs and reducing unnecessary regulatory frictions that discourage CSDs from operating across borders. This includes proposals to establish networks of links between all CSDs through hubs and to expand the scope of the existing links to cover all securities, which would improve investors' access to securities across the EU. It also includes a proposal to promote the use of T2S. In addition to regulatory measures, the Eurosystem – via its market advisory body, the Advisory Group on Market Infrastructures for Securities and Collateral (AMI-SeCo¹¹⁶) – will continue promoting and sponsoring market harmonisation and standardisation, as well as greater compliance with existing market standards in the areas of settlement, asset servicing and collateral management (e.g. the Single Collateral Rulebook for Europe standards, T2S standards and industry shareholder identification standards). In addition, the EU's planned migration to a T+1 standard securities settlement cycle by October 2027 also requires a harmonisation of operational processes across the value chain to improve the efficiency of transaction processing and speed up the execution of settlement without running a higher risk of settlement fails.

Innovation also plays a central role in current efforts to transform the EU post-trade landscape. The application of new technologies such as distributed ledger technology (DLT) have the potential to increase the efficiency of the securities ecosystem and to promote integration. Although many of the barriers described above do not stem from technology, the “green field” approach adopted by many stakeholders considering the application of these technologies provides an opportunity to remove or reduce several of these hurdles. The potential of these technologies to lower costs and reduce the complexity involved in exchanging information among stakeholders, and to further standardise key pre-trade and post-trade activities, are perceived by many stakeholders as an avenue to a more integrated capital markets ecosystem.

¹¹⁵ See the page entitled “[Market integration package](#)” on the European Commission's website.

¹¹⁶ See the page entitled “[Advisory groups on market infrastructures](#)” on the ECB's website.

The DLT Pilot Regime Regulation¹¹⁷ provides for a controlled environment to test new models for the recording, trading and settlement of securities. The proposed improvements to the pilot regime are an important step in allowing this ecosystem to move towards a more mature stage. The proposed permanent regime would feature more flexible parameters, such as higher activity limits in particular. The Commission proposes new types of licences for specific CSD services. Market stakeholders could use these licences instead of relying on national laws for digital securities, thus reducing legal fragmentation. The review also seeks to improve interoperability across DLT-based infrastructures and with existing market infrastructures.

In parallel, the Eurosystem is working on enabling the settlement of digital assets and facilitating a natively digital ecosystem through the Pontes and Appia initiatives.

- **Pontes** is the Eurosystem's DLT solution connecting market DLT platforms and TARGET Services. This will allow market participants to settle tokenised asset transactions in central bank money, giving them the safety and certainty they need today while building operational experience for tomorrow. The Eurosystem will launch a pilot for Pontes by the third quarter of 2026.
- **Appia** will pave the way to an integrated digital financial ecosystem in Europe based on systematic and wide cooperation between public and private stakeholders. The initiative will combine analytical and practical work focusing on the overall architecture of the future ecosystem – from settlement infrastructures to standards, rules and governance frameworks. Appia will draw on the lessons learnt from Pontes.¹¹⁸

2.7.3 Additional measures needed to achieve further integration

Despite the progress made, a fully integrated EU securities issuance and post-trade landscape can only be achieved if the persistent fragmentation of issuance practices, national laws and tax rules is addressed. A key priority is to harmonise corporate, insolvency and securities legislation. This will also help promote market harmonisation and the standardisation of issuance and asset servicing market practices. Targeted measures could focus in the first instance on specific areas of corporate and securities law that directly affect the cross-border issuance, holding and settlement of securities. For instance, harmonising the definition of beneficial owners, including for tax purposes, and standardising the processing of corporate events for both equities and debt instruments would remove significant operational barriers. In practice, this could involve expanding the scope of the Shareholder Rights Directive¹¹⁹ to cover the full processing of corporate events,

¹¹⁷ Regulation (EU) 2022/858 of the European Parliament and of the Council of 30 May 2022 on a pilot regime for market infrastructures based on distributed ledger technology, and amending Regulations (EU) No 600/2014 and (EU) No 909/2014 and Directive 2014/65/EU (OJ L 151, 2.6.2022, p. 1).

¹¹⁸ For further details, see the [Appia launch paper](#)

¹¹⁹ Directive 2007/36/EC of the European Parliament and of the Council of 11 July 2007 on the exercise of certain rights of shareholders in listed companies (OJ L 184, 14.7.2007, p. 17)

potentially by codifying existing market standards into EU law. Establishing a 28th regime for corporate, insolvency and securities law harmonisation would enable EU firms to opt into a framework allowing the cross-border provision of post-trade services for the securities they issue. The full implementation of the FASTER Directive would mark progress towards achieving harmonised tax processing, data requirements and certification requirements, thus reducing the disproportionate costs of cross-border investment.

The regulatory framework for post-trade services should, in the long term, converge towards and support single rulebooks. These harmonised rules should cover the areas of issuance, settlement, asset servicing and collateral management applicable to all infrastructures and their users. They should do so in a way that is technology-neutral and provides a level playing field for EU infrastructures. This could also support the eventual integration of the DLT Pilot Regime Regulation into other pieces of EU legislation, while adapting the legislation to the new ecosystem.

Box 5

The role of the Eurosystem in the scaling-up of a tokenised financial ecosystem

Prepared by Francisco Gaspar and Gergely Koczan

Financial market infrastructures for securities issuance, settlement and servicing are evolving with digital innovation. The use of tokenisation of financial assets – digitally representing an asset in a decentralised database through distributed ledger technology (DLT) – is increasing. It has the potential to make financial services more efficient by automating, integrating and simplifying processes, as well as enhancing transparency. For example, although central securities depositories (CSDs) have traditionally relied on centralised database systems to carry out their activities, in recent years, CSDs and other market players have been exploring the use of tokenisation and DLT.¹²⁰ According to Bloomberg data, at the end of 2025 the amount outstanding of euro-denominated debt instruments with some digital exposure, including but not limited to assets issued using DLT, stood at around €2 billion (Chart A). Market intelligence suggests that tokenisation initiatives have focused primarily on the issuance of debt instruments, money market fund units and collateral management activities such as repo transactions. This means that the use of DLT remains limited for the issuance of equities and more complex financial instruments.^{121,122}

¹²⁰ CSDs are market infrastructures whose activities typically include the issuance, custody and settlement of securities.

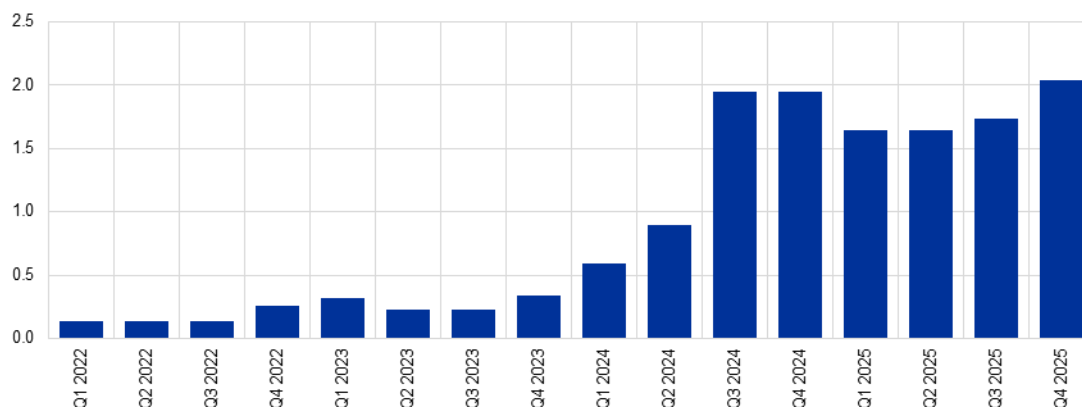
¹²¹ This dynamic is likely supported by the fact that, compared with equities and structured financial products, plain vanilla debt instruments and money market funds impose lower legal/regulatory risks on stakeholders when transacted via new technologies. They are also more easily scalable in terms of duration and amounts issued and generally have a more flexible institutional investor base.

¹²² Tokenisation trends information is based on the Eurosystem's own market intelligence activities and public reports by market associations (see Suarez, J., *DLT-Based Capital Market Report*, The Association for Financial Markets in Europe, October 2025).

Chart A

Estimated amount outstanding of euro-denominated debt instruments with digital exposure

(Q1 2022-Q4 2025, EUR billions)



Sources: Bloomberg Finance L.P. and ECB calculations.

Notes: The estimate for debt instruments with digital exposure includes issuances by governments and corporations and is based on Bloomberg's digital asset exposure dataset, indicating "whether a debt instrument has direct digital exposure, which is issuance on a digital ledger, digital exchange, and/or digital clearinghouse". Although this definition may be broader than that of assets issued using DLT, it provides a gauge to estimate the use of tokenisation within debt instrument markets. The estimated amount outstanding at the end of each quarter is calculated assuming the volume outstanding for each asset remains unchanged since its issuance date.

The Eurosystem plays a key role in supporting financial market innovations that could improve financial integration within the euro area. This is carried out while ensuring at the same time the effectiveness of monetary policy and financial stability and the smooth functioning of payment systems, as well as supporting strategic autonomy, increased resilience and the international role of the euro. The adoption of a proactive approach towards market infrastructure and monetary policy implementation, reflects the ECB's mandate, including its commitment to the European Commission's savings and investment union.¹²³

Regarding market infrastructure, the Eurosystem is promoting the safe and integrated development of a European digital asset ecosystem. Notably, the issuance of euro-denominated DLT-based securities during 2024 was supported by the overarching exploratory initiative carried out by the Eurosystem between May and November that year.¹²⁴ This work examined how central bank money settlement can be applied to wholesale transactions based on DLT. The Eurosystem carried out trials of real transactions recorded on DLT settled in central bank money in production environments (Chart B, panel a) and experiments of mock transactions in test environments (Chart B, panel b). It involved nearly €1.6 billion in central bank money settlements, with 64 eligible market participants across nine jurisdictions. A total of 58 distinct use cases were conducted, covering payments, securities settlement and the full lifecycle of DLT-based financial assets. The large number of use cases reflects the high level of interest and engagement from market participants, as well as the growing market demand for DLT-based solutions by the industry.¹²⁵ Some stakeholders expressed plans to scale up their use of DLT in wholesale financial markets. The results confirmed

¹²³ See Cipollone, P., "Towards a digital capital markets union", keynote speech at the Bundesbank Symposium on the Future of Payments, Frankfurt am Main, 7 October 2024.

¹²⁴ See "The Eurosystem's exploratory work on new technologies for wholesale central bank money settlement", ECB, June 2025.

¹²⁵ It is important to note that financial market infrastructures such as CCPs, CSDs and DLT (T)SS are required by applicable regulatory frameworks (incl. the CPMI-IOSCO PFMI) to ensure the application of a delivery versus payment mechanism for the settlement of transactions in financial instruments. In that regard, availability of central bank money and integration / interoperability of cash settlement and securities settlement systems are necessary for further uptake of DLT or tokenisation of financial instruments.

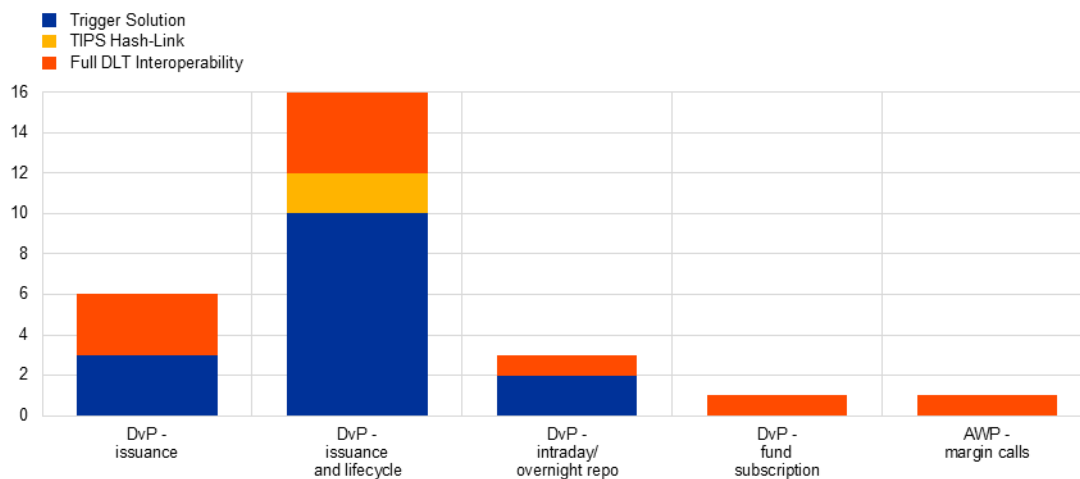
the potential of DLT to be deployed at larger scale not only in the settlement domain, but also in other phases of the financial transactions lifecycle.

Chart B

Eurosystem use cases

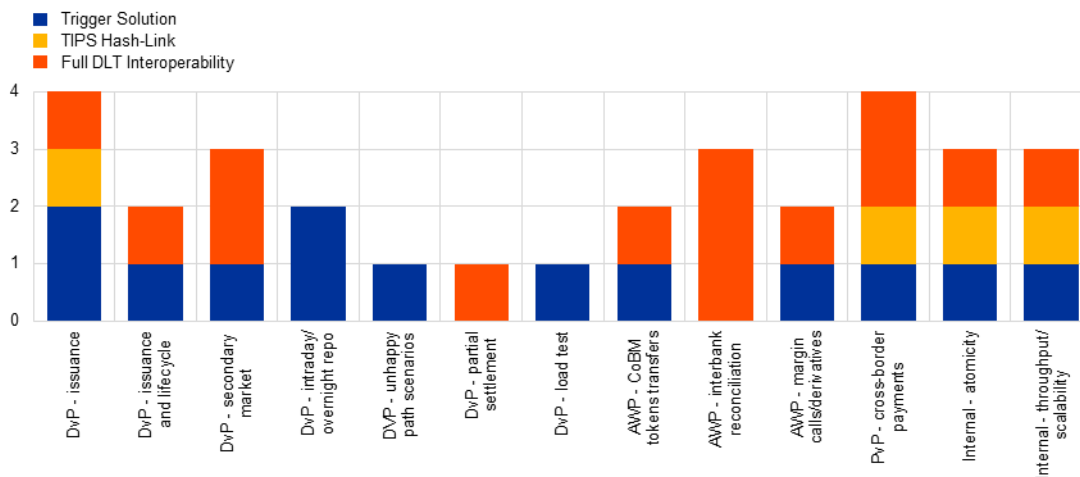
a) Trials of real transactions by settlement solution

(number of use cases)



b) Experiments of mock transactions by settlement solution

(number of use cases)



Source: ECB.

Notes: The Eurosystem offered three solutions for explorations by market stakeholders on central bank money settlement via DLT: Trigger Solution developed by the Deutsche Bundesbank, TIPS Hash-Link solution developed by the Banca d'Italia and Full DLT Interoperability solution developed by the Banque de France. AWP stands for automated wholesale payments; CoBM stands for commercial bank payments; DvP stands for delivery versus payment; PvP stands for payment versus payment. For more details on these solutions, see [Exploratory work on new technologies for wholesale central bank money settlement](#) on the ECB's website. The figures encompass the experiments and trials which took place between May 2024 and November 2024.

Based on the findings of this exploratory work, in July 2025 the Governing Council of the ECB committed to a single Eurosystem work programme to support the safe and integrated development of a European digital asset ecosystem.¹²⁶ The programme follows a two-track approach:

¹²⁶ See “[ECB commits to distributed ledger technology settlement plans with dual-track strategy](#)”, ECB, July 2025.

- **Pontes:** The short-term track, bridging the present and the future. Pontes is the Eurosystem's DLT solution that will connect DLT-based market platforms with the Eurosystem's TARGET Services. It will enable the settlement of tokenised financial instruments in central bank money, with a pilot phase to be launched as of the third quarter of 2026. Pontes will provide more certainty for market participants using DLT for wholesale transactions and lay the groundwork for future developments. The ECB has established a dedicated governance structure to ensure engagement with national central bank and market stakeholders.
- **Appia:** The long-term track, paving the way for an integrated digital financial ecosystem in Europe. Appia focuses on developing a blueprint for the future DLT-based European financial markets by 2028, in collaboration with market participants, legislators and regulators. This initiative adopts a holistic approach, examining the architecture of the wholesale financial settlement infrastructure alongside the assets and services supported by it. Further details on Appia are outlined in the recently published roadmap.¹²⁷

In addition to Pontes and Appia, the Eurosystem is supporting financial market innovation via its monetary policy implementation framework. Participation in Eurosystem credit operations is based on the provision of collateral upholding the principles of adequacy, safety, efficiency and a level playing field.¹²⁸ For the purposes of receiving marketable assets (i.e. securities) as collateral from counterparties, the Eurosystem central banks rely on CSDs.¹²⁹ From 30 March 2026 the Eurosystem accepts marketable assets issued in CSDs using DLT-based services as eligible collateral for Eurosystem credit operations.¹³⁰ These assets need to be available for settlement in TARGET2-Securities (T2S) and comply with the relevant Eurosystem collateral framework requirements.¹³¹ As a result, the mobilisation process is the same as that for any other marketable asset accepted by the Eurosystem. It is important to highlight that this initial measure is part of the Eurosystem's broader strategy announced by the ECB for the acceptance of DLT-based assets as eligible collateral and its commitment to continue to align its collateral framework and collateral management practices with technological advancements in financial markets.

To this end, the Eurosystem has launched an ambitious plan to explore if, and under what circumstances assets issued using DLT but not represented in eligible securities settlement systems could also become eligible and be mobilised as Eurosystem collateral in the future. A staggered approach is being considered that would first look into the most relevant subsets of DLT-based assets and reflect market developments in this area, with a particular focus on issuance and the mobilisation of these assets. The safety and regulatory requirements applicable to DLT-based infrastructures where such assets are issued or represented are also being considered under this

¹²⁷ See "[Appia Roadmap](#)", ECB, March 2026.

¹²⁸ Eurosystem collateral assets can be divided into marketable assets (typically debt securities) and non-marketable assets (typically credit claims and fixed-term deposits).

¹²⁹ In order for a marketable asset to be eligible as Eurosystem collateral, it must be issued in a CSD-operated eligible securities settlement system (SSS) or an SSS with a link to an eligible SSS. For more details, see the [List of eligible SSSs](#) on the ECB's website.

¹³⁰ See "[ECB paves way for acceptance of DLT-based assets as eligible collateral](#)", *press release*, ECB, 27 January 2026.

¹³¹ DLT-based assets accepted as eligible Eurosystem collateral will need to comply with the existing Eurosystem collateral eligibility criteria, which include the requirement for such assets to be listed for trading in an acceptable Eurosystem market. They may also be referred to as "detokenised" assets. In particular, these assets must still be converted into a representation format compatible with the securities settlement systems operated by CSDR-compliant CSDs using T2S before being mobilised as collateral by counterparties. For more details, see the [Eurosystem collateral eligibility rules for marketable assets](#) on the ECB's website.

plan.¹³² As the programme to develop a European digital asset ecosystem (Pontes and Appia) unfolds, the universe of DLT-based assets is expected to grow further. This could mean a wider set of DLT-based assets will meet the Eurosystem collateral requirements. Furthermore, new mobilisation channels for such assets may emerge for potential use by counterparties and Eurosystem central banks. By enabling the acceptance of DLT-based assets as eligible collateral for its credit operations, the Eurosystem provides a clear direction to industry players helping market participants align their efforts and innovate within a common framework.

The Eurosystem's market infrastructure and monetary policy implementation initiatives reflect a proactive approach to supporting market innovation, building on its commitment to technological progress and contributing to the vision of a more integrated and unified European financial ecosystem. These undertakings complement the continuous efforts made to improve and modernise the Eurosystem's existing market infrastructures (i.e. TARGET Services).

Box 6

Closing the gap? Gauging the development and integration of Europe's capital markets

Pablo Anaya Longaric, Elena Banu, Lisa Bellinghausen, Andrei Dumitrescu and Zakaria Gati

Empirical evidence points to a set of interrelated structural blockages that continue to limit the effectiveness of European capital markets in supporting innovation and long-term growth. Households' limited exposure to risk capital contributes to a marked mismatch between Europe's large savings and its financing needs.¹³³ Additionally, when households do invest in equity, a substantial share of it is channelled to the United States, supporting, among others, its innovative sectors. To translate the savings and investments union (SIU) agenda into actionable priorities, policymakers need sound and simple metrics that quantify how far European capital markets are from their potential, and where fragmentation remains most binding. Building on previous analytical framing, indicators of market development and integration can be mapped to bottlenecks in the capital markets union (CMU) across three stages: (i) facilitating access to capital markets ("entry"), (ii) enabling cross-border scaling ("expansion"), and (iii) improving opportunities to finance growth and fostering successful outcomes ("exit").¹³⁴ This box sets out a compact set of CMU indicators aligned with these goals. The aim is to highlight key structural gaps and help assess progress on CMU objectives under the SIU strategy.

EU households save a relatively high proportion of their income compared to other jurisdictions, but allocate a large share of their financial assets to bank deposits, leading to significantly untapped potential for savings to be channelled into productive investments. In

¹³² The legal environment governing DLT market infrastructures and DLT-based assets includes the Central Securities Depository Regulation (CSDR), the DLT Pilot Regime Regulation, the Markets in Crypto-Assets Regulation (MiCAR) and national securities laws in the euro area. Additionally, risk management is being taken into consideration to ensure that any eligible DLT-based asset is adequate as collateral, with sufficient mitigation of financial risks. Ongoing reflections on possible amendments to these acts, in particular the DLT Pilot Regime will also be taken into account in the Eurosystem's work on its collateral framework.

¹³³ See Nerlich, C. et al., "Investing in Europe's green future – green investment needs, outlook and obstacles to funding the gap", *Occasional Paper Series*, No 367, ECB, 2025.

¹³⁴ See Arampatzi, A et al (2025), "Capital markets union: a deep dive. Five measures to foster a single market for Capital", *Occasional Paper Series*, No 369, ECB, 2025.

aggregate, EU households hold around a third of their financial assets in cash and deposits, with investments in securities amounting to roughly half that share. If EU households were to align their deposit-to-financial assets ratio with that of US households, a stock of up to €8 trillion could be redirected into long-term, market-based investments.¹³⁵ The Savings and Investment accounts (SIA) recommendation proposed by the European Commission in September 2025 aims to unlock this potential by allowing savers to invest in products that would finance European companies and the twin transition.¹³⁶ The proposed pension package, which promotes auto-enrolment and the uptake of supplementary pensions while also lowering key barriers to equity investments by pension funds, represents an important part of this endeavour.^{137,138}

When savings do reach capital markets, euro area households largely finance non-EU companies. Looking at direct and indirect (through investment funds) equity exposure of euro area households, half of their holdings are in instruments issued outside of the EU (Chart A). There are, however, major differences across the euro area: less than 23% of the equity holdings of Slovak households were issued within the EU compared with more than 86% for France. The US capital markets capture 34% of euro area equity holdings, which is similar to the share of domestic equities (35%), highlighting the persistent attractiveness of US markets offering consistently higher returns than the EU.¹³⁹ This disproportionate weighting of US-issued equities is particularly pronounced for indirect holdings (47% of total), as capital invested through European funds is mainly allocated to the United States (50%) in line with its overall weight in global portfolios. While a higher degree of international diversification tends to provide a better risk insurance for investors, an over exposure to certain US industry segments and USD denominated securities represent a significant channel of contagion.

¹³⁵ See Lagarde, C., “[Follow the money: channelling savings into investment and innovation in Europe](#)”, speech at the 34th European Banking Congress: “Out of the Comfort Zone: Europe and the New World Order”, 22 November 2024.

¹³⁶ See European Commission, “[EU to boost financial literacy and investment opportunities for citizens](#)”, *press release*, 30 September 2025.

¹³⁷ See European Commission, “[Commission proposes to boost supplementary pensions to help ensure adequate retirement income](#)”, *press release*, 20 November 2025.

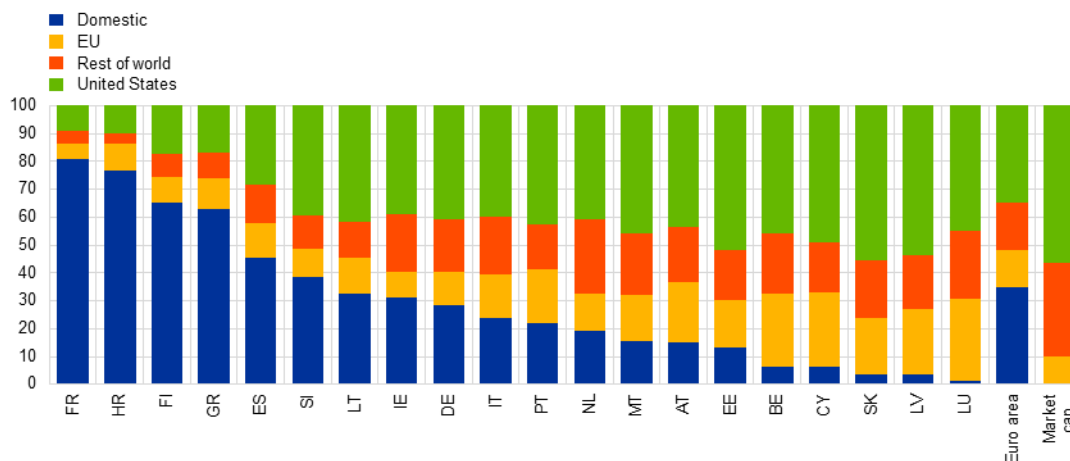
¹³⁸ See European Commission, “[Commission advances the Savings and Investments Union with measures to mobilise insurers’ and banks’ capital for Europe’s future](#)”, *press release*, 29 October 2025.

¹³⁹ In the past decade, total returns of the S&P 500 have reached 300%, compared with 150% for the STOXX Europe 600.

Chart A

Euro area household equity holdings, by issuer region

(Q4 2024, percentage points of total)



Sources: ECB (SHS), LSEG, and ECB calculations.

Notes: Listed shares held by euro area households (institutional sectors S.14, S.15, and S.1MU) by issuer region for the 20 euro area countries at the end of Q4 2024. The dataset includes only listed shares issued by non-financial corporations (institutional sector S.11) and banks (institutional sector S.122) held by households directly, by purchasing shares in them or via investment fund shares. Investment fund holdings are analysed on a look-through basis.¹⁴⁰

The fragmented nature of EU capital markets remains a key obstacle to achieving sufficient scale and liquidity to attract investment and increase returns. Supervisory fragmentation, tax disparities and differences in market infrastructure further exacerbate these inefficiencies.

Accelerating regulatory harmonisation and removing structural barriers to cross-border investments are essential to make EU capital markets more attractive. In this regard, the market integration package proposed by the European Commission, including capital market supervision, has the potential to deliver tangible progress.¹⁴¹

Initial public offerings (IPOs) and venture capital (VC) investment in the EU have

consistently lagged behind those in the United States. US IPOs have outperformed those in the EU across all segments, with median valuations in knowledge-intensive and high-tech sectors often reaching ten times those of their European counterparts (Chart B, panel a). A similar pattern emerges in private markets: in the EU, VC investment is significantly lower both as a share of GDP and in terms of median deal size.¹⁴² This gap is due to a combination of demand for and supply of capital: on the supply side, the lack of sufficiently sized VC funds in Europe is partially filled by a strong presence of foreign investors (for more details, see Box 4).

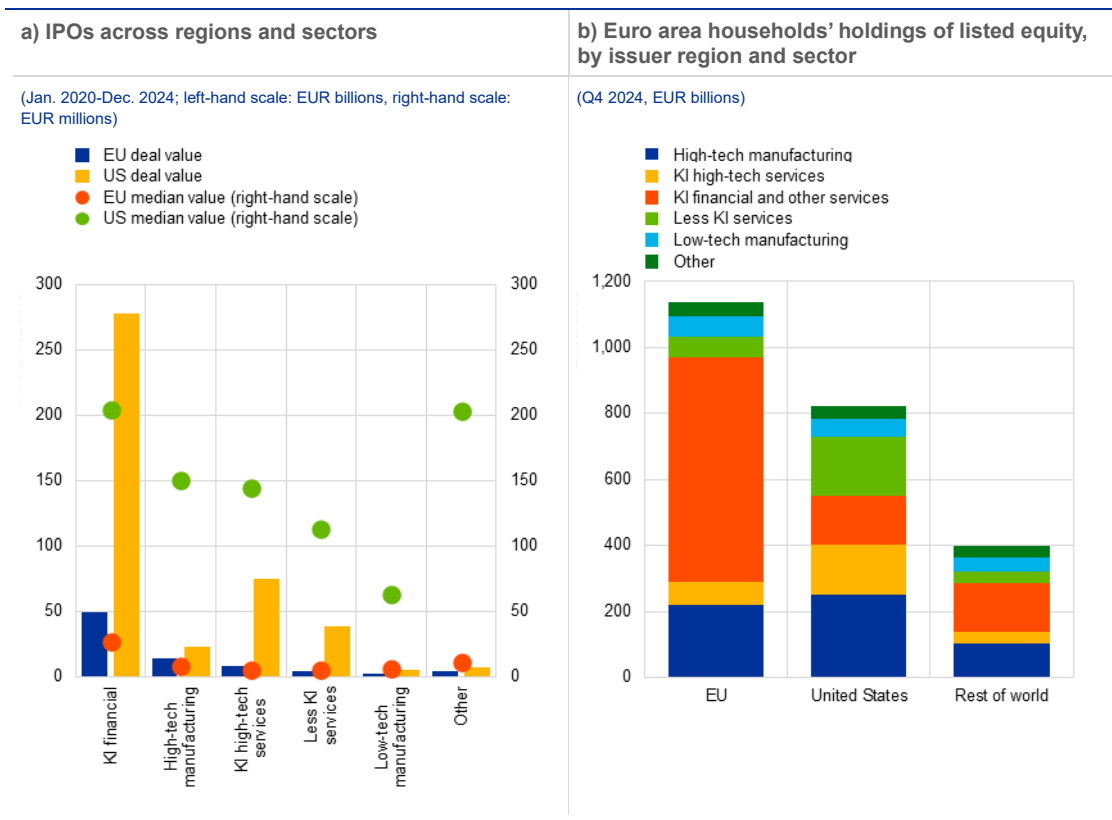
¹⁴⁰ For more information on the look-through approach, see Carvalho, D. and Schmitz, M., “Shifts in the portfolio holdings of euro area investors in the midst of COVID-19: looking-through investment funds”, *Working Paper Series*, No 2525, ECB, 2021.

¹⁴¹ See European Commission, “Commission launches major package to fully integrate EU financial markets”, *press release*, 4 December 2025.

¹⁴² See Böninghausen B. et al., “Should we mind the gap? An assessment of the benefits of equity markets and policy implications for Europe’s capital markets union”, *Occasional Paper Series*, No 373, ECB, 2025.

Chart B

European IPOs and household equity holdings



Sources: Eurostat, Dealogic, ECB (SHS) and ECB calculations.

Notes: KI stands for knowledge-intensive. Panel a): the sector classification is based on [Statistical Classification of Economic Activities in the European Community](#) at the 2- or 3-digit level for compiling groups according to the level of technological intensity. Panel b): listed shares held by euro area households (institutional sectors S.14, S.15 and S.1MU) by issuer region as of Q4 2024. The dataset includes only listed shares issued by non-financial corporations (institutional sector S.11) and banks (institutional sector S.122) held by households directly, by purchasing shares in them or via investment fund shares. Investment fund holdings are analysed on a look-through basis.¹⁴³

The underdevelopment of Europe's VC ecosystem is reinforced by household investment patterns that favour traditional services in Europe while directing equity capital towards innovative sectors in the United States.

For EU-issued equities, households predominantly invest in financial sector companies. By contrast, high-tech manufacturing and services, which are crucial sectors for the digital economy, account for the largest share of US-issued equity held by EU households (49%), compared with only 26% of EU-issued equity. This divergence is remarkable in absolute terms as well, with EU households holding around €292 billion in these sectors in Europe against €404 billion in the United States (Chart B, panel b). Given that euro area households hold close to €35 trillion in financial assets, this implies that investments in EU high-tech sectors account for only about 1% of the total.¹⁴⁴

The efficient implementation of the policy measures proposed as part of the SIU strategy should advance the development and integration of capital markets.

The SIA Recommendation and the review of the Solvency II and IORP II frameworks, if implemented in an efficient manner, should be able to enhance equity market development quite quickly. In the longer run, key structural barriers to integration can be addressed through the market integration package on supervision and market infrastructure, as well as more fiscal convergence. This should raise

¹⁴³ For more information on the look-through approach, see Carvalho, D. and Schmitz, M., op. cit.

¹⁴⁴ See [Quarterly sectoral accounts for Q4 2024](#).

capital market scale and liquidity, thus strengthening the attractiveness of EU markets. Finally, strengthening domestic investment and growth in the EU is essential given that the Union's persistent current account surplus reflects a structural excess of savings over domestic investment. Fostering deeper venture capital markets should increase the long-run supply of risk capital for Europe's innovative firms.

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