



EUROPEAN CENTRAL BANK

EUROSYSTEM

From money market funds to stablecoins: lessons for central banks

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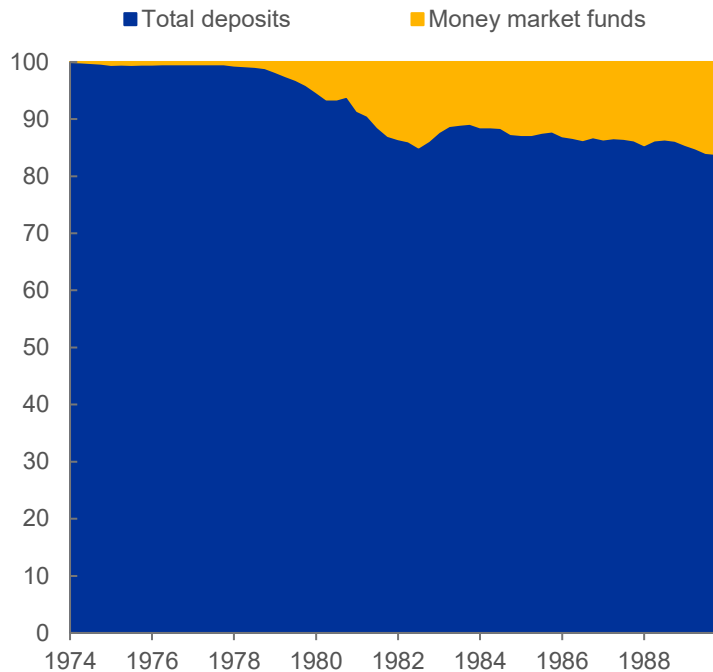
*Member of the Executive Board
of the ECB*



Central Banks and the Future of Money
Bank of Korea International Conference, Seoul, 1 June 2026

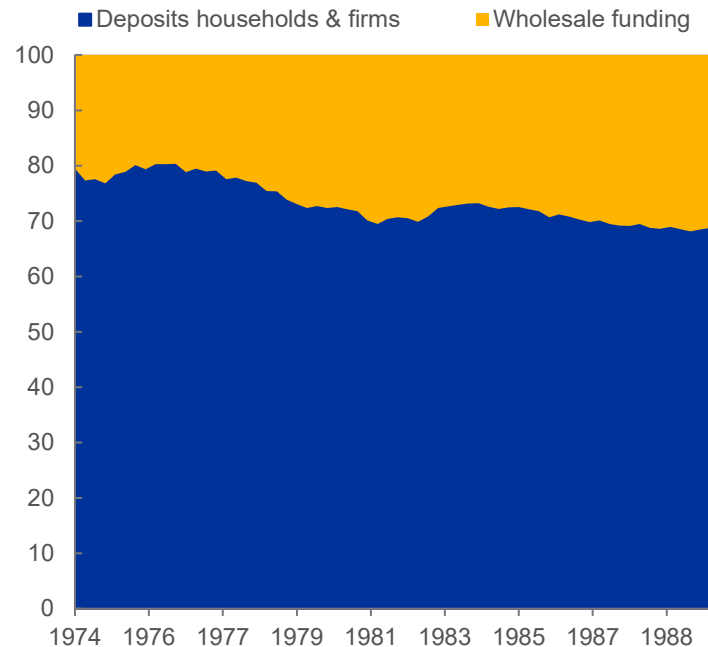
Rise of MMFs in US led to some bank disintermediation and more wholesale funding

Bank deposits and money market funds (MMFs) in US (percentage of total stock)



Sources: Federal Reserve Board/Haver Analytics and ECB calculations.
Notes: The areas show the stock of each component relative to their combined total.
'Total deposits' are those reported by all commercial banks.
Latest observation: December 1989.

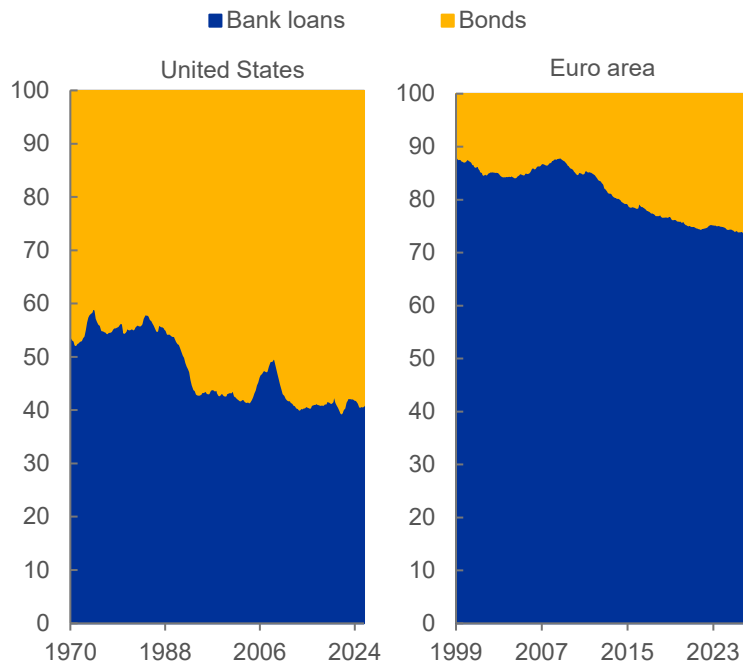
Bank funding in US (percentage of total stock)



Sources: Financial Accounts of the United States and ECB calculations.
Notes: 'Wholesale funding' includes federal funds & security repurchase agreement, net interbank transactions, debt securities, other loans and advances as well as deposits from the non-bank financial and government sectors.
Latest observation: December 1989.

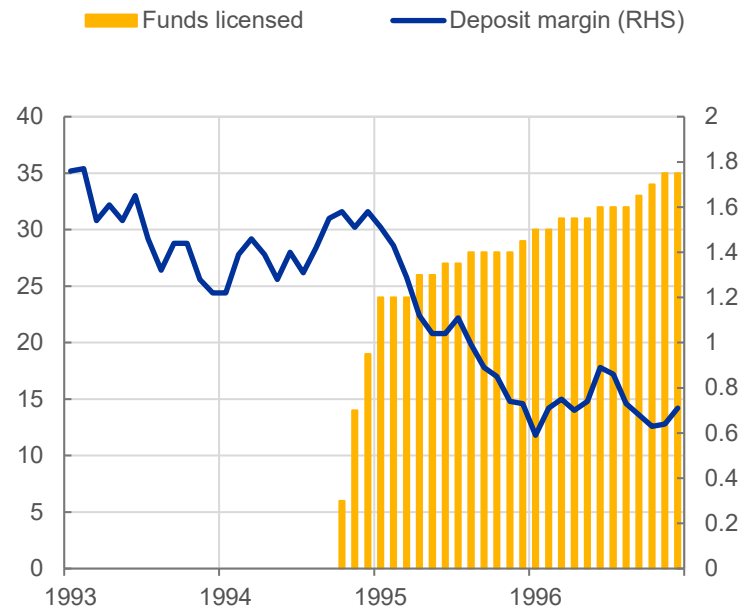
Composition of firms' debt financing

(percentage of total)



Bank deposit margins and licensed money market funds in Germany

(lhs: count; rhs: percent)



Sources: ECB (BSI, CSEC), Financial Accounts of the United States and ECB calculations.

Notes: In the euro area, bank loans are adjusted for sales, securitisation and cash pooling. Data for the euro area are monthly, while data for the US are quarterly due to different frequencies in the sources.

Latest observation: December 2025 for EA and Q4 2025 for US.

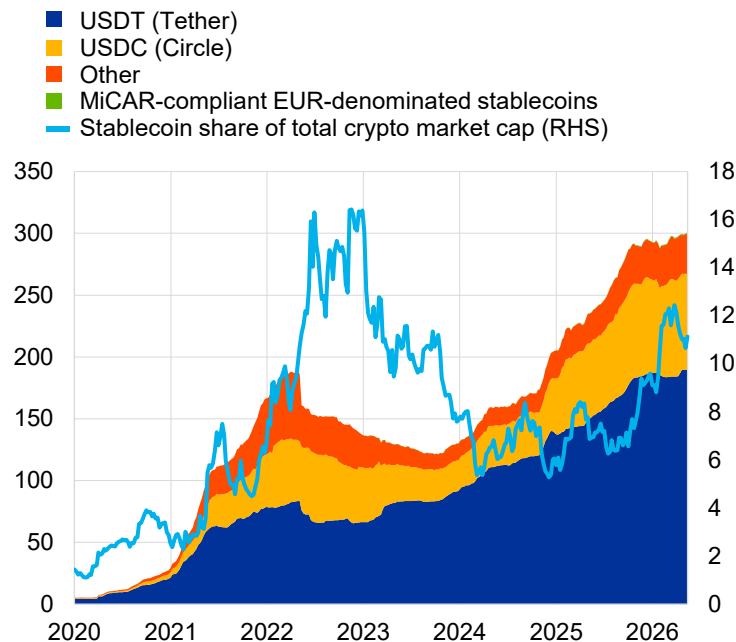
Source: Fischer, K.-H., and C. Pfeil (2004).

Notes: Equally weighted index of gross deposit margins comprising different types of savings and time deposit products. Number of money market mutual funds that were licensed by the Federal Banking Supervisory Office (Bundesaufsichtsamt für das Kreditwesen) and subsequently offered to the public.

Market capitalisation of stablecoins remains small despite rapid growth, especially in euro

Evolution of stablecoins

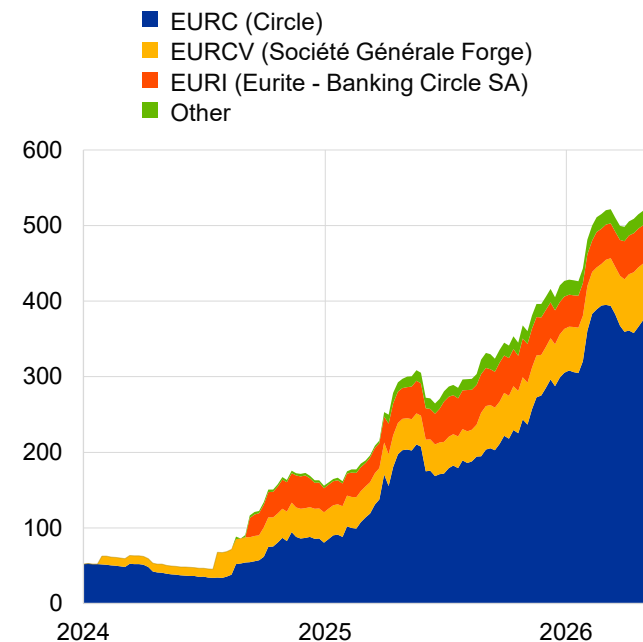
(USD billions, percentages)



Sources: CoinDesk, IntoTheBlock, CoinMarketCap and ECB calculations.
Notes: Circulating supply used for stablecoin market capitalisation.
Latest observation: May 2026.

Evolution of euro-denominated MiCAR-compliant stablecoins

(EUR millions)



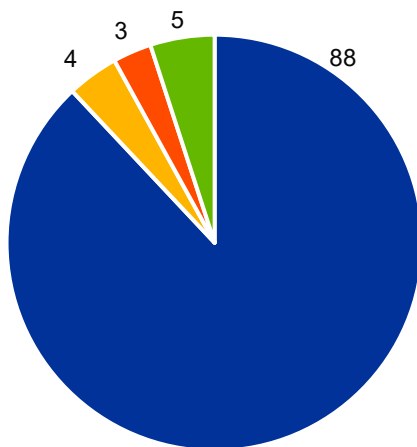
Sources: CoinDesk, CoinMarketCap and ECB calculations.
Notes: Circulating supply used for stablecoin market capitalisation.
Latest observation: May 2026.

Stablecoins mainly used for crypto transactions, while other use cases remain small

Global stablecoin use cases

(percentages)

- Crypto trading
- On/off-ramping
- Tokenised traditional asset settlement
- Payments



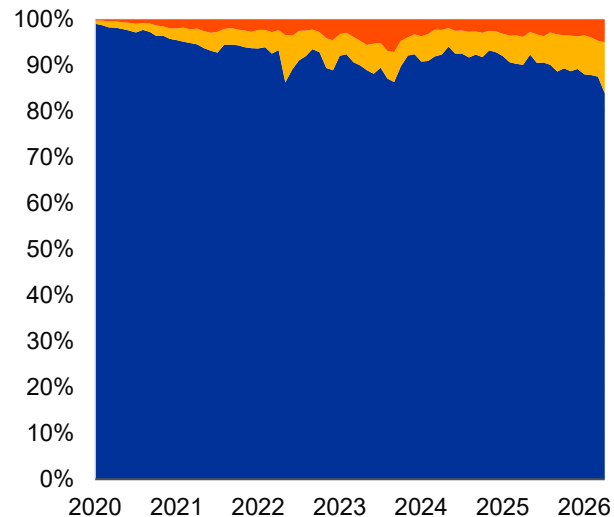
Sources: BCG, Visa Onchain dashboard (powered by Allium).

Notes: The exact figures vary depending on the analysis methodology; the vast majority of use cases is related to crypto trading (arbitrage and trading pairs facilitated on crypto exchanges). On/off-ramping refers to stablecoin flows bridging stablecoin wallets and crypto exchanges.

Transactions involving stablecoins on crypto-asset trading platforms

(percentages)

- Stablecoin to non-stablecoin crypto
- Stablecoin to stablecoin
- Fiat currency to stablecoin

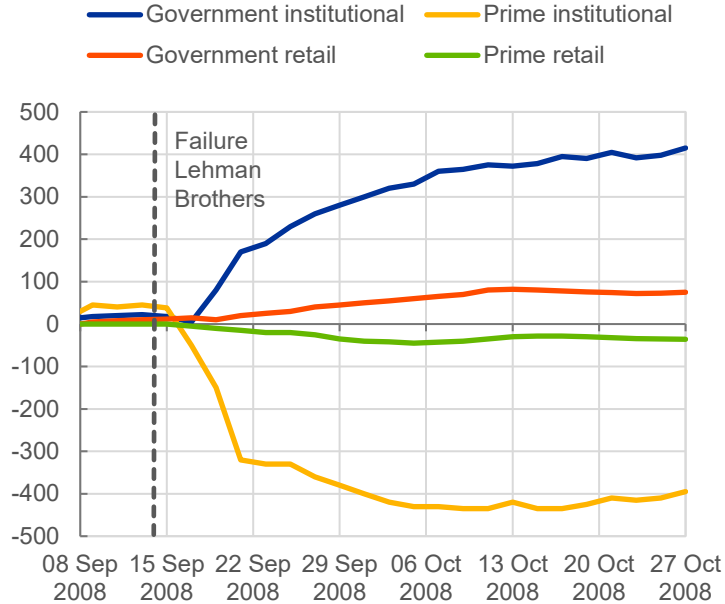


Sources: CoinDesk and ECB calculations.

Latest observation: April 2026.

Money market fund flows during the global financial crisis of 2008

(USD billions)

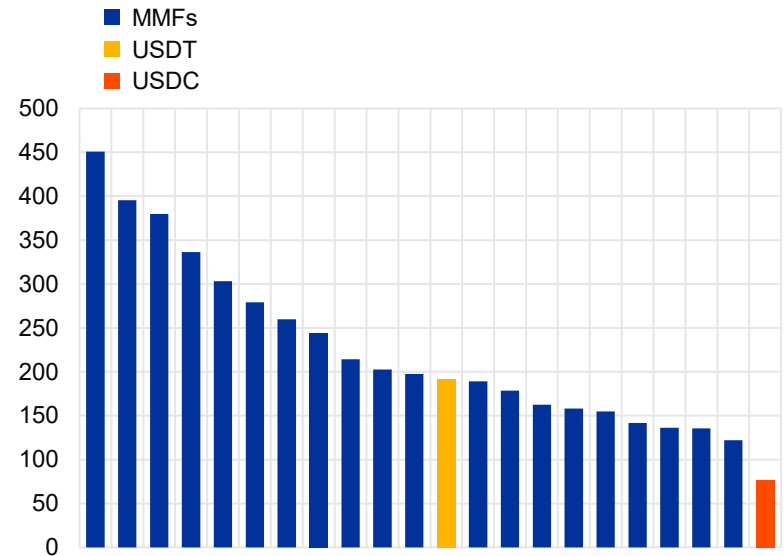


Source: Schmidt, A. Timmermann, R. Wermers (2016).

Notes: Government money market funds hold US government-backed securities (mainly Treasuries and agencies). Prime money market funds hold corporate debt in addition to government debt. Institutional funds are MMMFs that cater to institutional investors.

Size of USDT and USDC compared with the 20 largest MMFs

(USD billions)



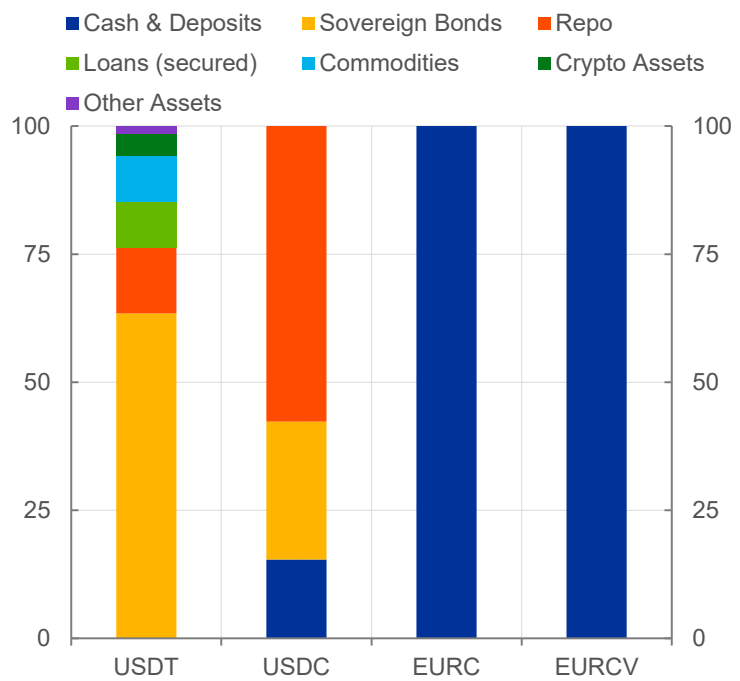
Sources: Lipper, independent auditors'/accountants' reports on Tether (USDT) and USD Coin (USDC) reserves from stablecoin issuer websites.

Notes: Chart shows all reserve assets for USDT and USDC, which consist predominantly of US Treasuries, repos & reverse repos, and cash & bank deposits.

Latest observation: March 2026.

Stablecoin reserves held as deposits may create contagion between SCs and banks

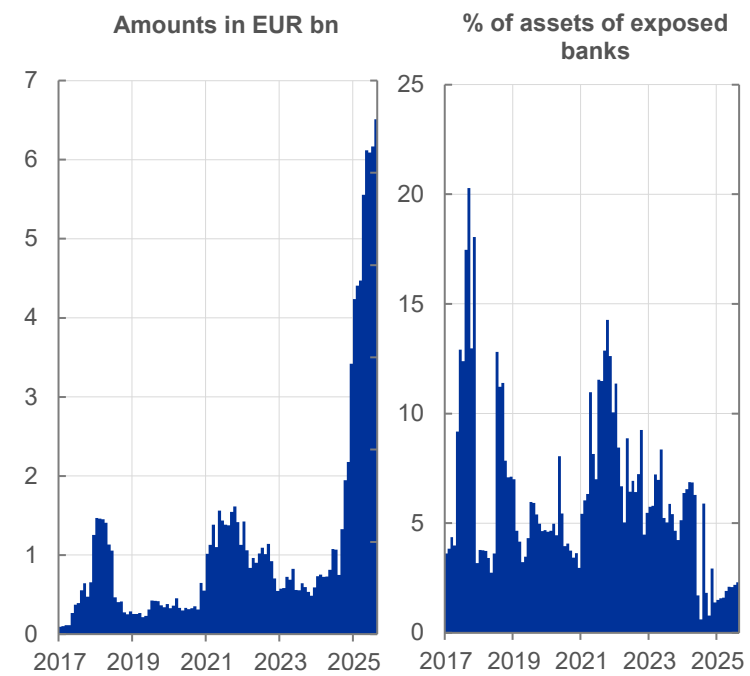
Reserve asset composition of large stablecoins (percent)



Sources: Stablecoin issuer websites and independent auditors'/accountants' reports on Tether (USDT) and USD Coin (USDC) reserves.
 Notes: Share of reserve assets invested in different asset categories. USDT is issued by Tether Holdings, USDC and EURC by Circle, EURCV by Société Générale Forge.
 Latest observation: March 2026.

Large deposits by crypto exchanges and stablecoin issuers at EA banks

(lhs: EUR billions; rhs: percentage of total assets)

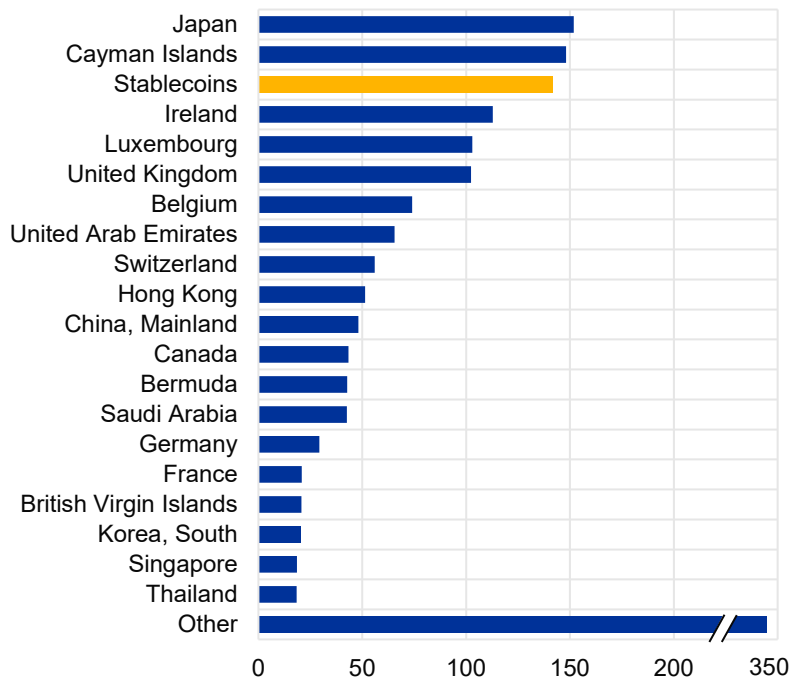


Sources: ECB Supervisory Reporting and ECB calculations.
 Notes: Based on banks reporting crypto-related counterparties among their top ten largest counterparties in COREP and/or among the top 10 largest depositors in the weekly liquidity templates, thus the data is not complete. The share in total exposed assets changes due to the number of banks, notably in July and September 2024, respectively, as new relatively larger banks entered.
 Latest observation: August 2025.

Size of SCs and MMFs determines their impact on monetary policy transmission

Foreign holders of short-term US Treasuries

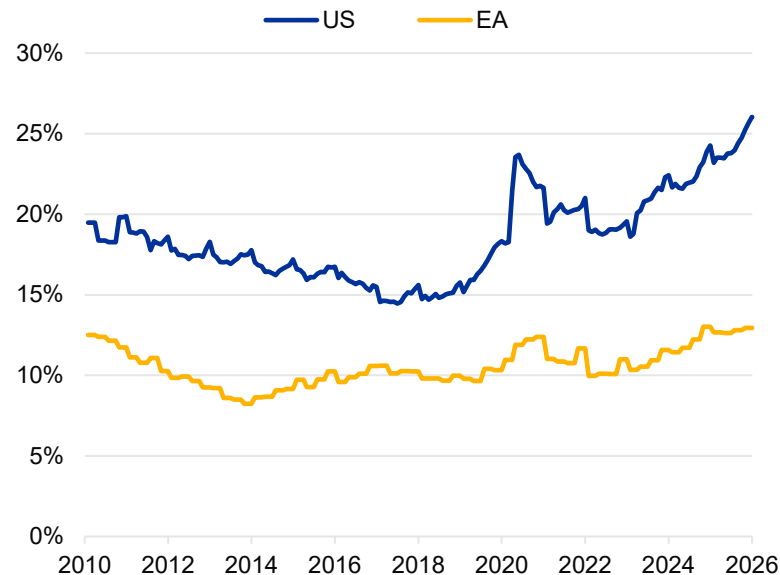
(USD billions)



Sources: US Treasury Department, independent auditors'/accountants' reports on Tether (USDT) and USD Coin (USDC) reserves and ECB calculations.
 Notes: Chart shows the largest foreign holders of short-term US Treasury Bills. Stablecoins covers short-term US Treasury Bill holdings from Tether and Circle. Other covers all other countries and International and Regional Organizations (IROs).
 Latest observation: March 2026.

Market capitalisation of MMFs

(percent of GDP)

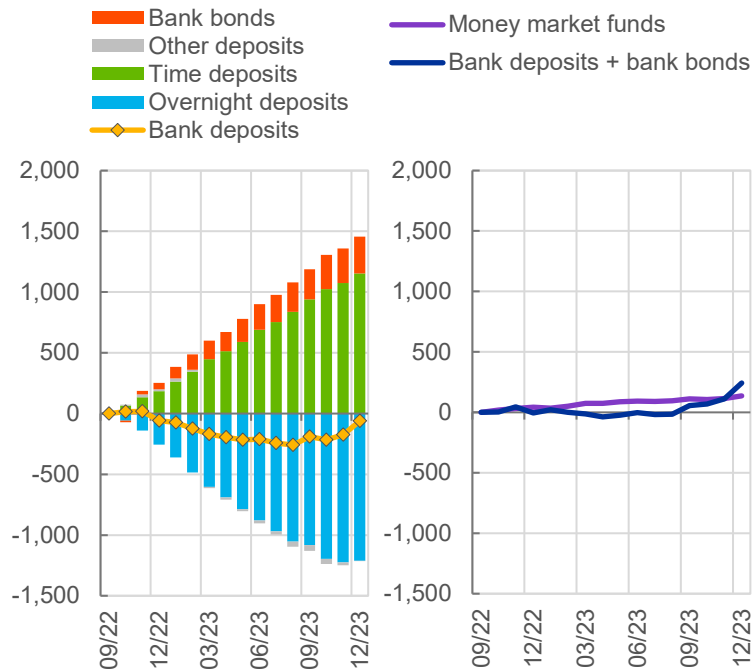


Sources: ECB Data Portal, US Securities and Exchange Commission, Federal Reserve Bank of St. Louis (FRED) and ECB calculations.
 Notes: Chart shows Assets Under Management (AUM) calculated as a percentage of the annual GDP of the reference region.
 Latest observation: December 2025.

In 2022/23, EA depositors shifted from overnight to time deposits rather than MMFs

Bank funding in EA

(cumulated flows in EUR bn since end-September 2022)

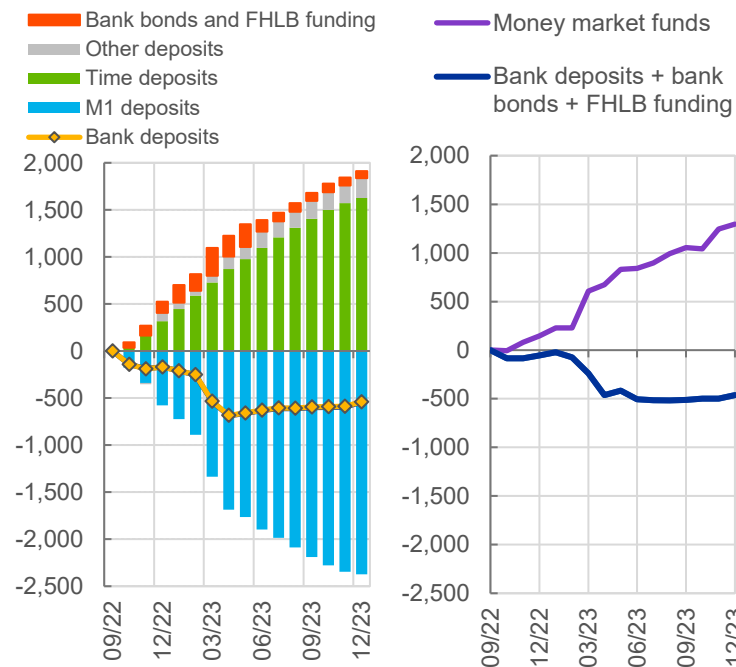


Sources: ECB (BSI) and ECB calculations.

Notes: Bank deposits consist of deposits held with the MFI sector by euro area residents excluding MFIs, central government and financial vehicle corporations involved in securitisation activity. Their flows have been adjusted for the operational incident in TARGET2, which inflated the September 2022 OFI deposits, to be then reversed in October and November 2022. Bank bonds are those held by euro area residents excluding MFIs and central government.
Latest observation: December 2023.

Bank funding in US

(cumulated monthly differences in outstanding amounts in USD bn since end-September 2022)



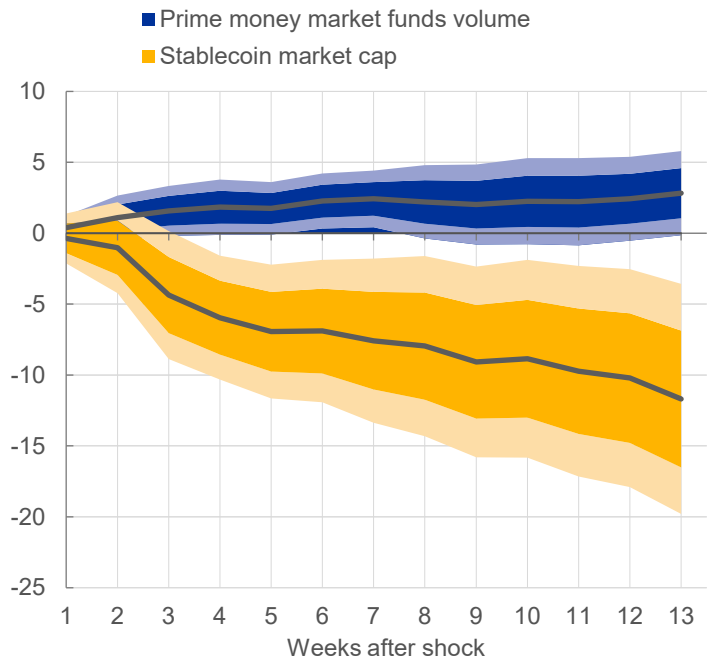
Sources: Federal Reserve Board/Haver Analytics and ECB calculations.

Notes: Banks are domestically chartered commercial banks, US branches and agencies of foreign banks and Edge Act and agreement corporations. Consolidated bank bond data are quarterly and interpolated at monthly frequency. "M1 deposits" include demand and other liquid deposits. FHLB funding refers to the advances received by Federal Home Loan Bank.
Latest observation: December 2023.

Stablecoins experience outflows in response to monetary policy tightening

Impulse responses to a contractionary monetary policy shock

(percentage change)

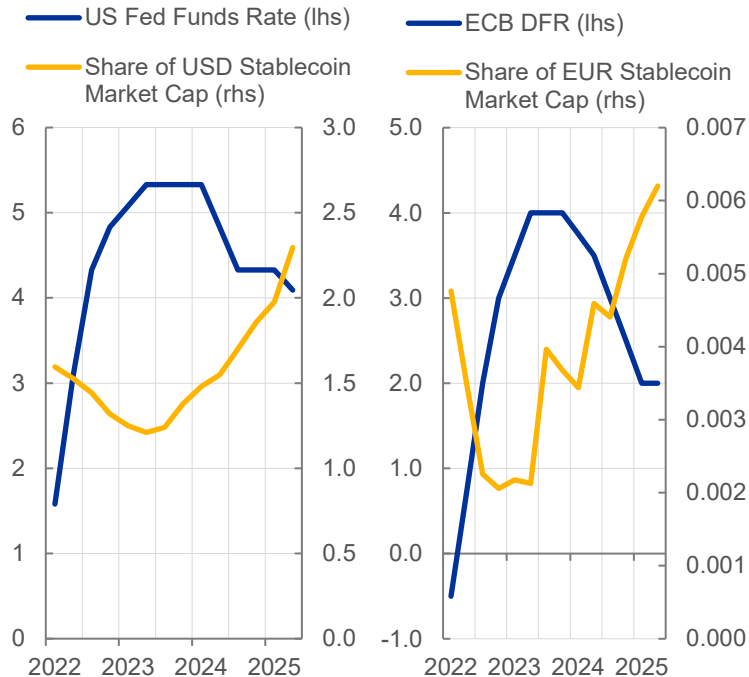


Source: Aldasoro et al. (2025).

Notes: Impulse responses to a US monetary policy shock scaled to contract the price of Bitcoin by 10% (i.e. about a standard deviation). Shaded areas report the 68% and 90% confidence intervals. Prime MMF volumes corresponds to assets under management. Stablecoin circulating market capitalisation data are for Tether, USDC and Dai.

Relative size of stablecoin market capitalisation and policy rates

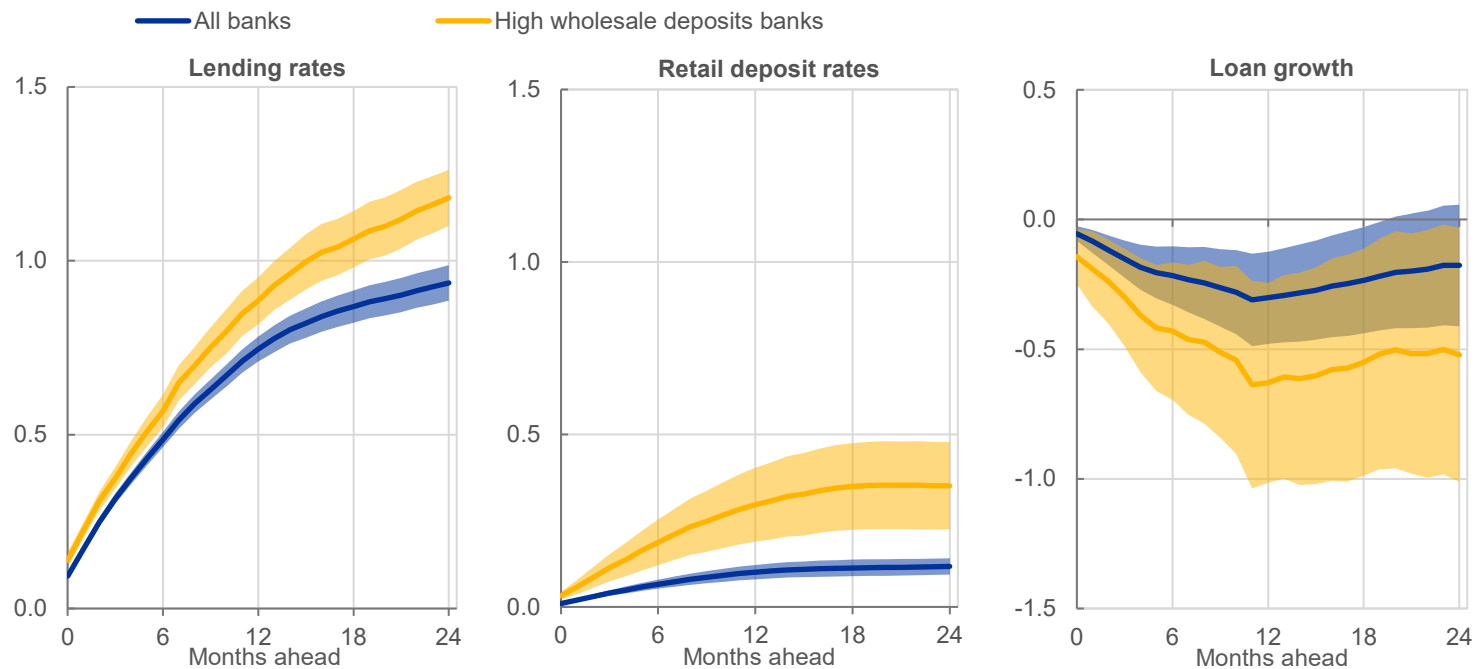
(lhs: percentage points; rhs percent)



Sources: ECB, FRED St. Louis and ECB calculations.

Notes: Left panel: USD stablecoins market capitalisation over the sum of USD stablecoins market capitalisation, total financial assets of U.S. money market funds and U.S. checking deposits and currency from households (rhs) and the U.S. Fed funds rate (lhs). Right panel: EUR stablecoins market capitalisation over the sum of EUR stablecoins market capitalisation, total assets of euro area money market funds, and euro area overnight deposits from households (rhs) and the ECB Deposit Facility Rate (lhs). Latest observation: 2025Q3.

Responses of interest rates and loan growth to a contractionary monetary policy shock (percent)

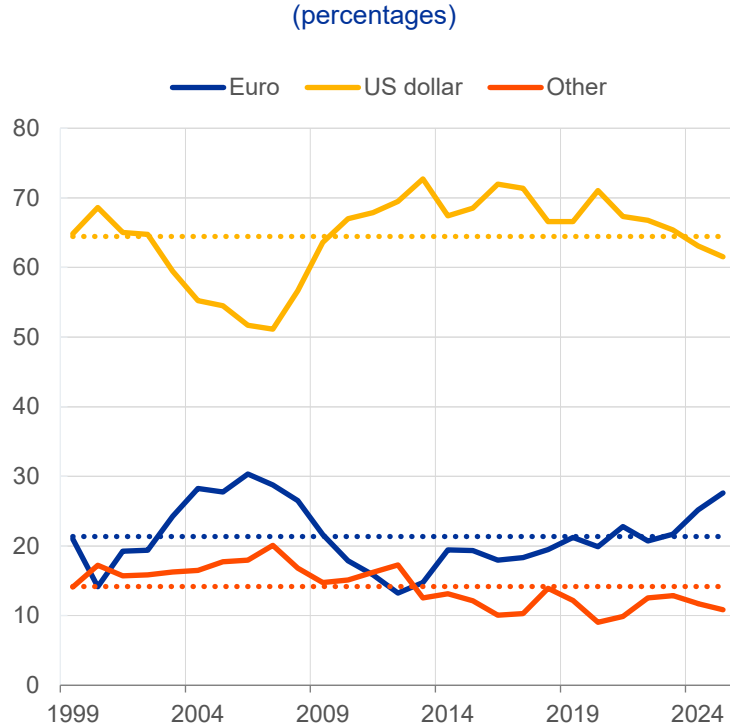


Source: Altavilla et al. (2026): Stablecoins and Monetary Policy Transmission, ECB Working Paper 3199.

Notes: The chart reports the change of firm lending rates, retail deposit rates and annual loan growth to firms predicted by monetary policy rate changes from a local projection regression over the period June 2007 to September 2025, using monthly data and one lag for a sample of 354 banks. Identification is achieved using high-frequency monetary policy surprises from Altavilla et al. (2025) as instruments for the policy rate. The first two panels report pass-through rates (percentage point changes of the dependent variable for each percentage point change of the policy rate). The third panel reports the impact of a 25-basis-point change in policy rates and also includes the change in loan demand as reported in the BLS and measured over the same horizon as the loan growth as a control variable. The solid lines depict the central estimates, while the shaded areas represent the 90% confidence interval. Blue lines and areas refer to the overall sample, red lines and areas refer to banks with a retail-to-total deposits ratio below the 25th percentile in the cross-section of banks. Standard errors are clustered at the bank level.

USD maintains relevance in global debt markets, while share in FX reserves has dropped

Shares in foreign currency-denominated bond and loan issuance (percentages)

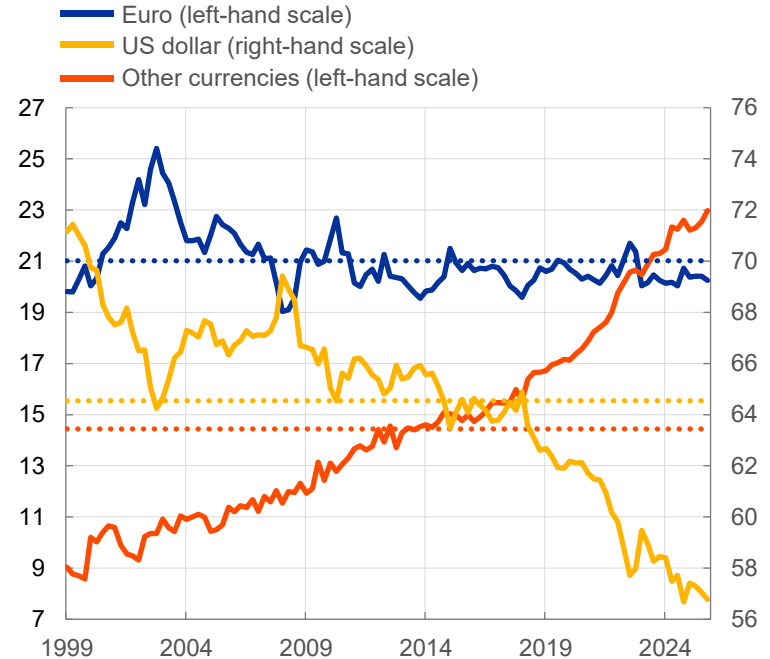


Sources: Dealogic and ECB calculations.

Notes: Dotted lines represent series averages over the entire period.

Latest observation: April 2026.

Shares in global foreign exchange reserves (percentages)



Sources: IMF and ECB calculations.

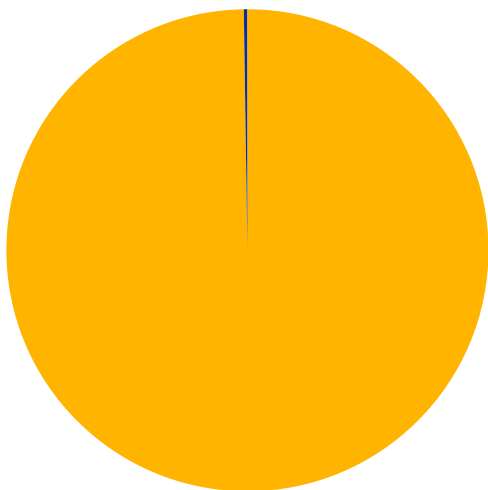
Notes: Dotted lines represent series averages over the entire period.

Latest observation: Q4 2025.

Market capitalisation of stablecoins across currencies

(percentages)

- US dollar-pegged stablecoins (>99.7%)
- Euro-pegged stablecoins (<0.3%)
- Stablecoins pegged to other currencies (<0.03%)



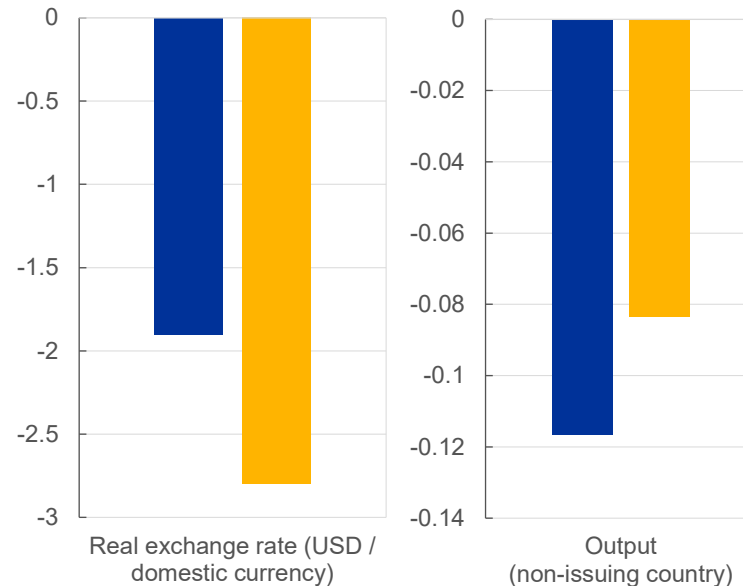
Sources: Artemis Analytics and ECB calculations.
Latest observation: April 2026.

Simulated responses to a US monetary policy shock on foreign variables

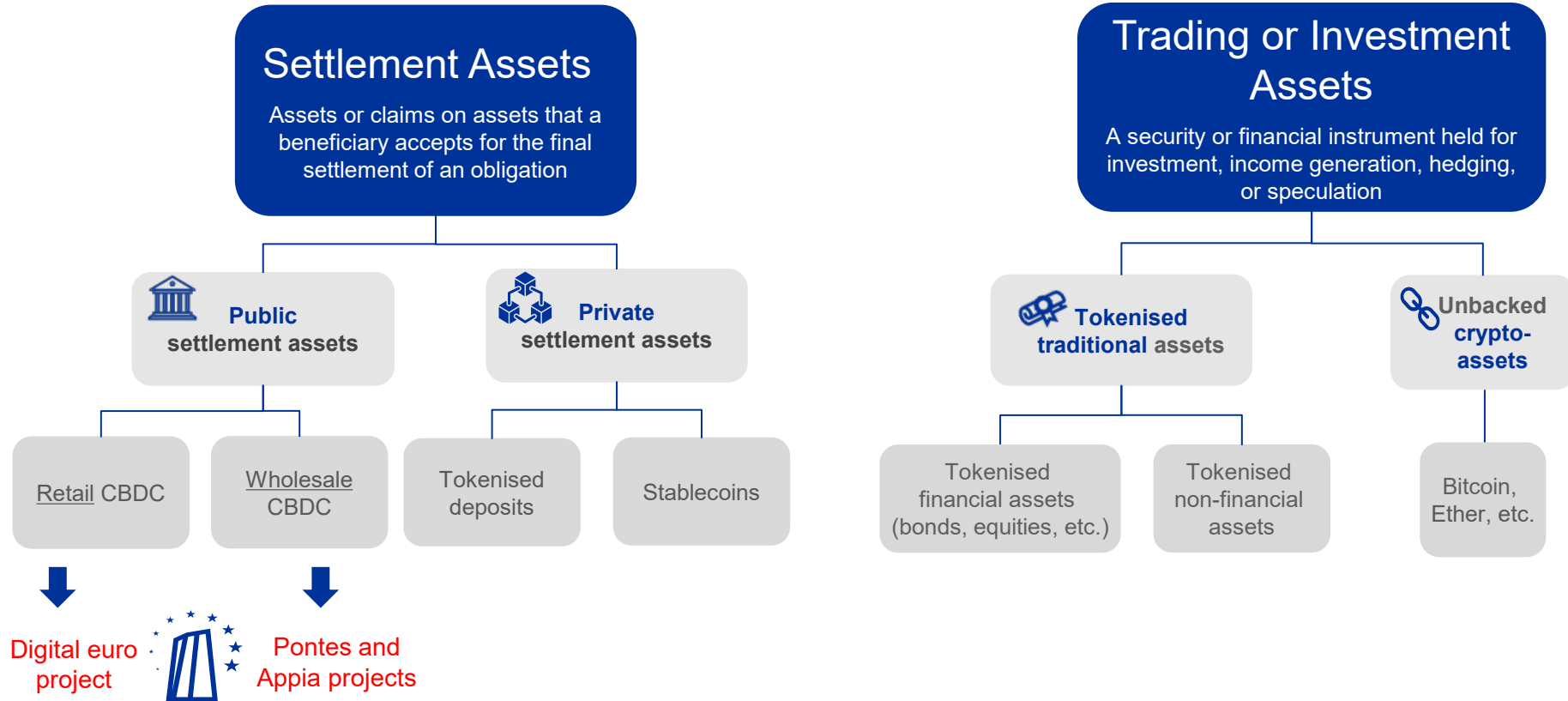
(percentage change from steady state)

■ Large stablecoin adoption

■ No stablecoins



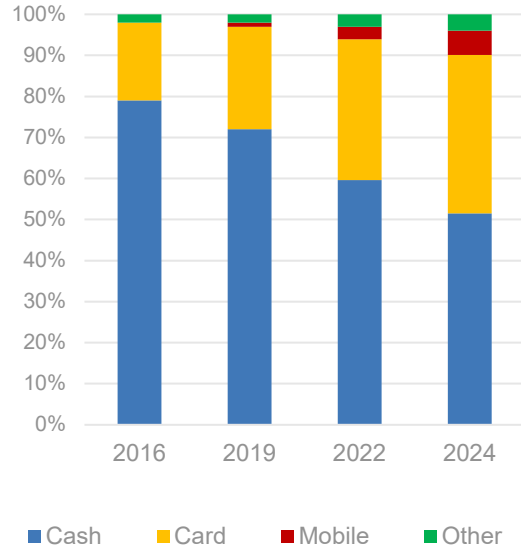
Sources: Ferrari Minesso and Siena (2026) and ECB calculations.
Notes: The chart shows the impulse responses to a US monetary policy shock that increases interest rates by 10 basis points in a model simulation without stablecoin issuance in the United States vs. another simulation where the issuance of stablecoins reaches about USD 2 trillion. Responses of the bilateral real exchange rate against the US dollar (expressed as US dollar per unit of foreign currency) and foreign output are reported as deviations from the model's steady state values.



Digital euro provides public anchor, preserves autonomy and reduces fragmentation

Share of payment instruments in shops

(percent of number of payments)



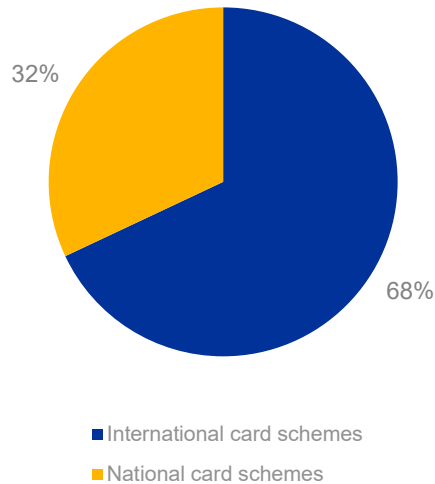
Source: Study on the payment attitudes of consumers in the euro area (SPACE), ECB, December 2024.

Notes: Shares are presented as a proportion of all day-to-day payments in the euro area, in number terms. In the questionnaire, mobile payments are defined as payments made with a mobile phone, smartwatch or fitness armband, or another smart device.

Latest observation: 2024.

Role of international card schemes in card transactions

(percent)



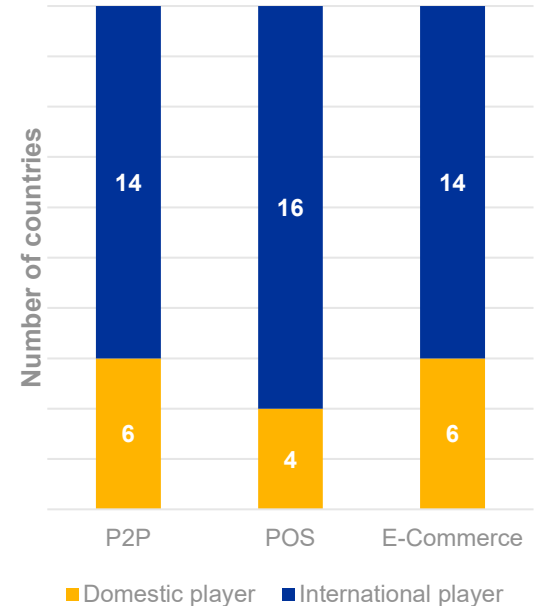
Source: ECB.

Notes: Share of international card schemes by volume in total electronically initiated card payments with cards issued in the euro area and transactions acquired worldwide, i.e. in any non-euro area country.

Latest observation: 2024.

Market leadership in payment options across EA countries

(number)



Sources: ECB based on ECB SPACE report; Euromonitor; Global Payments Report (FIS Worldpay); Key players in the EU payments landscape (The Payments Association EU).

Notes: "P2P" refers to alias-based P2P payments, which are not available everywhere. The table does not explicitly highlight the P2G channel (i.e. person-to-government) that would also be served by the digital euro; however, it is encompassed within the "e-commerce" or "POS" channels. A market leader is defined as the solution most widely utilised within a given market.

Latest observation: November 2025.

www.ecb.europa.eu

 **Digital euro:
public money in
digital form**

Online ✓ Offline ✓



**First issuance planned for
2029** (assuming legislation
in 2026)

Pilot exercise in mid-2027

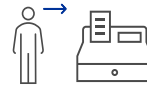


For consumers: Free digital payments everywhere in the euro area using a European payment scheme with a high degree of privacy and safety

Person-to-person



Point-of-Sale



E-commerce



For merchants: Lower fees, also due to more competition, which will partly be passed on to consumers, and high resilience



For banks: Additional fee income for the services provided and opportunity for offering European private solutions (e.g. co-badging); limited financial stability risks (holding limits, waterfall functionalities)



For innovators: Opportunity for building innovative retail payment use cases around central bank money for the entire euro area

Pay-on-delivery



Milestone-based payments



Automated payments for delays





Pontes provides the bridge between DLT platforms and TARGET Services

Launch in September 2026, followed by enhancements



Pontes & Appia will deliver on Eurosystem's commitment to safe, efficient settlement in central bank money



Appia shapes the future-ready, innovative, integrated tokenised ecosystem in a public-private partnership

Appia Blueprint to be finalised by 2028

Thank you very much for your attention!