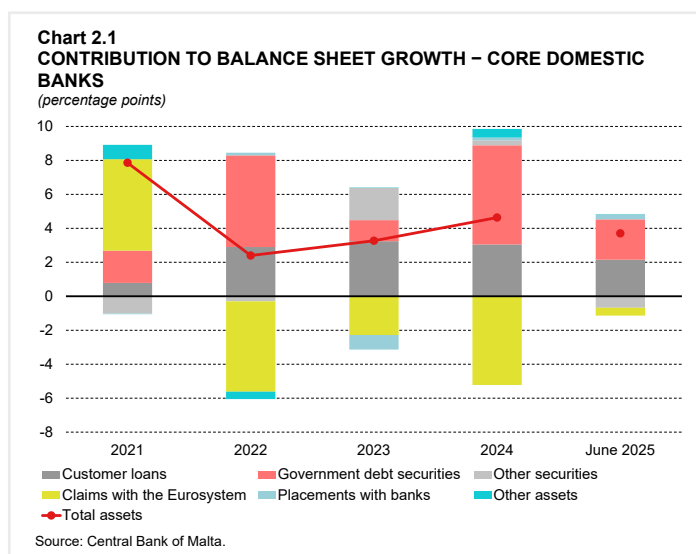


2. DEVELOPMENTS IN THE BANKING SECTOR

2.1 Core domestic banks

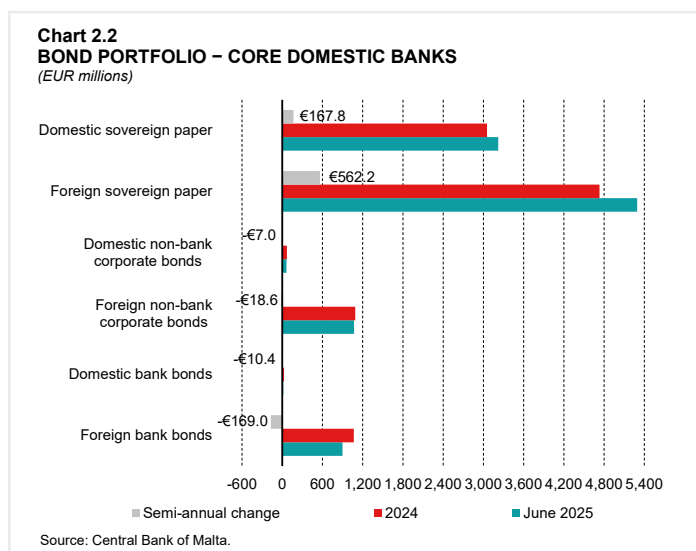
The balance sheet of the core domestic banks continued to expand in the first six months of 2025, growing by 3.7%, amounting to almost 135% of GDP. This mainly reflected higher holdings of government debt securities, along with larger customer loan books (see Chart 2.1). Interbank placements rose by 7.8% but remained limited to just above 4% of total assets. These were primarily in the form of deposits with related institutions. Although at a more moderate pace than in the previous years, these banks further reduced their claims with the Eurosystem, down by 5.8% to account for 7.2% of total assets.



2.1.1 The securities portfolio

Holdings of government debt securities continued to increase strongly, up by 9.4% in the first six months of 2025, albeit at a slower pace than in the corresponding period of last year. Notably, this growth was predominantly driven by higher holdings of foreign sovereign paper which accounted for 62.2% of the overall sovereign securities holdings in June 2025, mainly issued by European countries. The expansion in the holdings of domestic government paper remained more contained (see Chart 2.2). As a result, holdings of sovereign paper now represent over 80% of total debt securities. The increased concentration in sovereign debt holdings reflect the attractiveness of elevated bond yields. This trend persisted despite ongoing monetary policy easing. Meanwhile, holdings of both foreign and domestic bank and corporate bonds declined.

Core domestic banks maintained a strong preference for medium and high-rated debt securities, which collectively represented 92.7% of their total holdings.¹ This reflected a solid growth in both categories, up by 6.1% and 6.2%, respectively. In contrast, holdings of low-rated and speculative/unrated bonds contracted by 4.5% and 6.9%, respectively, remaining limited to just 6.0% and 1.3% of the overall debt securities portfolios. This underscores a clear prudent risk management among core domestic banks, with a strong focus towards safer assets.



¹ Investment-grade bonds carrying a rating of AA- or above are considered as 'high-rated bonds'. 'Medium-rated bonds' are those rated between A- and A+, whereas 'low-rated bonds' are those rated between BBB- and BBB+.

Meanwhile, equity holdings remained relatively stable during the first half of the year, representing just 1.4% of these banks' overall assets.

2.1.2 Loan portfolio

Customer loans grew by 4.3% in the first half of 2025 to account for almost half of these banks' assets by June 2025. Such growth was almost entirely driven by higher resident lending which grew by 4.5%, while non-resident lending edged up only marginally by 0.5%.

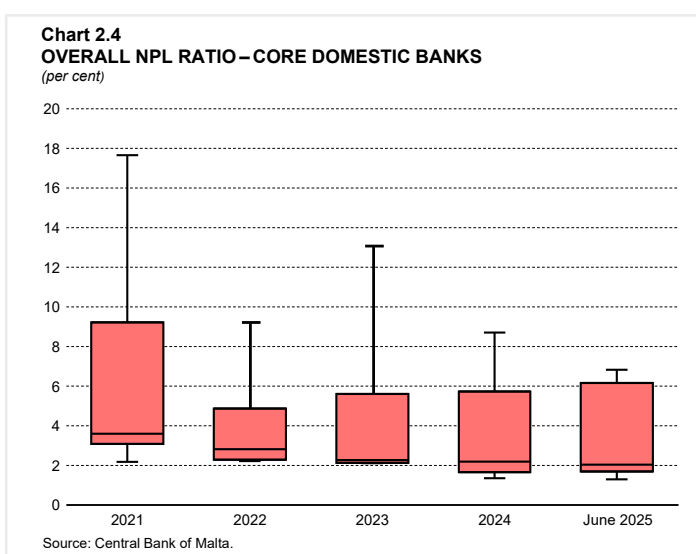
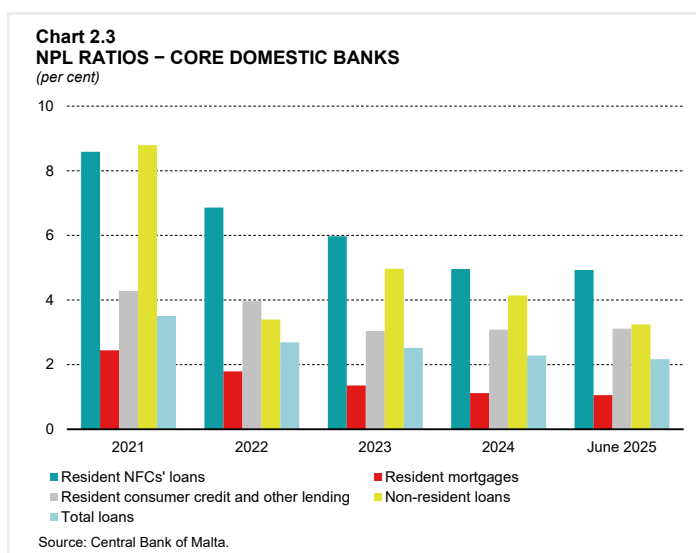
The increase in resident loans was broad-based. Mortgages remain the primary driver, up by 4.6% and representing 56.7% of resident customer loans. Resident consumer credit and other lending also increased by 4.9%, mainly for the purchase of goods and services. Concurrently, growth in loans to resident NFCs resumed momentum, up by 4.2%. This was mainly driven by firms operating in wholesale and retail trade, accommodation and food services, real estate and construction, as well as transportation and storage. The continued growth in property-related loans reinforced the concerns related to concentration risk, as these account for almost three-quarters of these banks' loan portfolio.

2.1.3 Credit quality

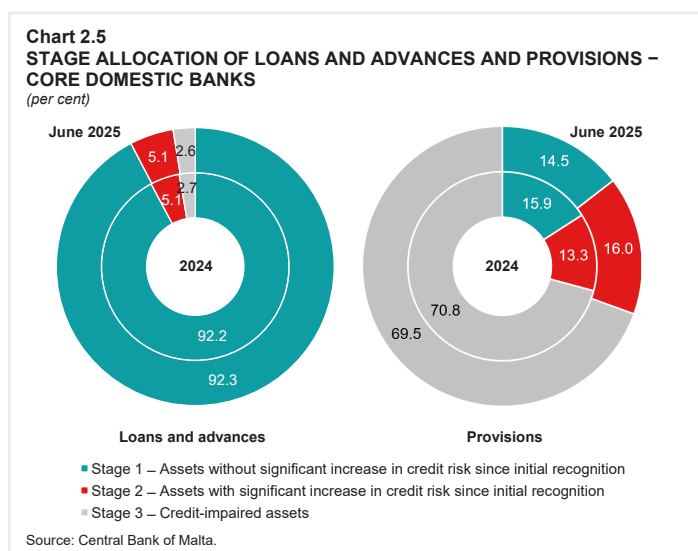
The overall quality of the core domestic banks' loan book continued to improve, as the stock of NPLs dropped a further 2%. Combined with a simultaneous increase in outstanding loans, this led to an improvement in the NPL ratio of 0.1 percentage points to 2.2% (see Chart 2.3). The median NPL ratio declined noticeably, and the interquartile range narrowed, with lower overall NPL levels and fewer extreme observations suggesting an improvement in credit quality and greater uniformity among banks (see Chart 2.4). Excluding Eurosystem placements, the NPL ratio stood slightly higher at 2.5%, but still 0.2 percentage points lower than six months earlier.

The improvement in asset quality was mainly spearheaded by a sharp 16.3% drop in non-resident NPLs. Together with an increase in non-resident loans, this pushed the non-resident NPL ratio to 3.2%, the lowest since September 2019.

The resident NPL ratio remained stable at 2.1%, as a slight increase in resident NPLs was offset by higher loan volumes. The household NPL ratio remained stable at just 1.3%, largely reflecting the continued strength of mortgage lending



which maintained an NPL ratio of 1.1%, indicating that households continued to meet their debt obligations reliably. The consumer credit NPL ratio also remained stable at 3.1%. The resident NFC NPL ratio improved by 0.1 percentage points to 4.9%, reflecting a larger NFC loan portfolio, which in turn offset the marginal increase in NPLs. Nonetheless, this overall stability masked divergent sectoral developments. NPLs in the construction and real estate sector increased to account for just over a quarter of total resident NPLs. This was partly offset by lower NPLs among NFCs operating in the transport and storage, and the administrative and support services sectors.



While Stage 3 loans fell by almost 2% to account for just 2.6% of the overall portfolio, Stage 2 loans increased by 6.3% suggesting some emerging concerns about potential credit deterioration (see Chart 2.5). Such deterioration was observed for both households and NFC loans. Notwithstanding, their share in total loans remained stable at 5.1%, as Stage 1 loans increased at a faster pace. Meanwhile, total provisions fell by 2.1%, mainly due to lower Stage 3 and Stage 1 provisions, which were partly offset by higher Stage 2 provisions, in line with the increase in loans under this category. The overall coverage ratio remained stable at 39.5%. When considering the collateral, NPLs are almost fully covered, limiting credit risks for these banks.

Loans with forbearance measures also contracted by 11.3%, solidifying these banks' healthy asset quality position. Although both performing and non-performing forbore loans fell, the former dropped at a much faster pace resulting in the share of non-performing forbore loans to account for around 53% of overall forbore loans.

2.1.4 Funding and liquidity

Deposits increased by 1.8% in the first half of this year, to finance 82.6% of the core domestic banks' balance sheet. Such growth emanated solely from resident clients, up by 2.4%, as otherwise non-resident deposits fell by almost 7%. Resident household deposits remained the main engine of growth in resident deposits, up by 4.4% to account for three-quarters of the overall resident deposits. This was partly offset by a decrease of 5.8% in resident NFC deposits, driven mainly by firms operating in arts, entertainment and recreation activities, real estate, and the electricity and gas sectors.

With monetary policy easing, interest rates on time deposits declined, triggering outflows from this product while demand and savings deposits grew by 3.1% to account for 85.3% of total deposits. The drop in time deposits may have also reflected the still elevated bond yields, which could have encouraged some depositors to reinvest their maturing deposits into bonds, a trend that could persist if government bond yields remain elevated.

Other funding sources, such as wholesale funding and Eurosystem funding remained negligible, reaffirming the solid liquidity position of the core domestic banks. Indeed, these institutions continued to maintain ample liquidity buffers, as reflected in their LCR and NSFR which stood at 402.7% and 182.7%,

respectively. Chart 2.6 shows that the LCR has high median values and a wide interquartile range suggesting that while all banks kept liquidity above the regulatory threshold, there were notable differences in buffers across entities. In contrast, the NSFR shows less dispersion, indicating a more consistent and stable long-term funding structure. Although the customer loans-to-deposits ratio increased by 1.3 percentage points to 60.5%, this remained well below the euro area average of 106.4%, further underscoring the banks' conservative funding structure.²

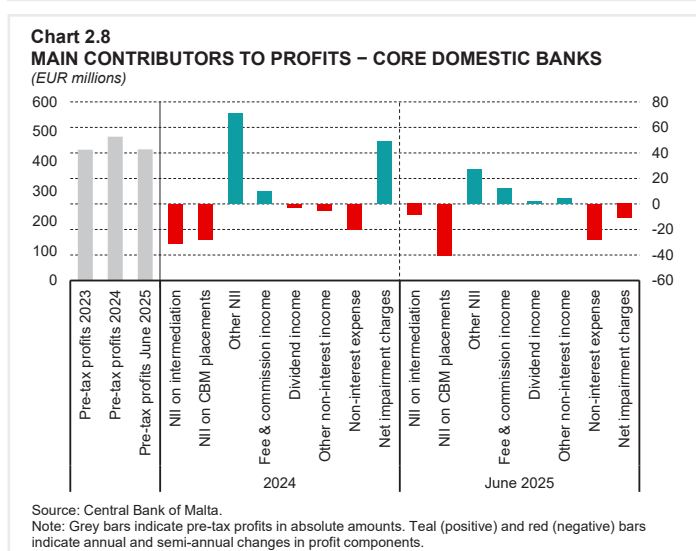
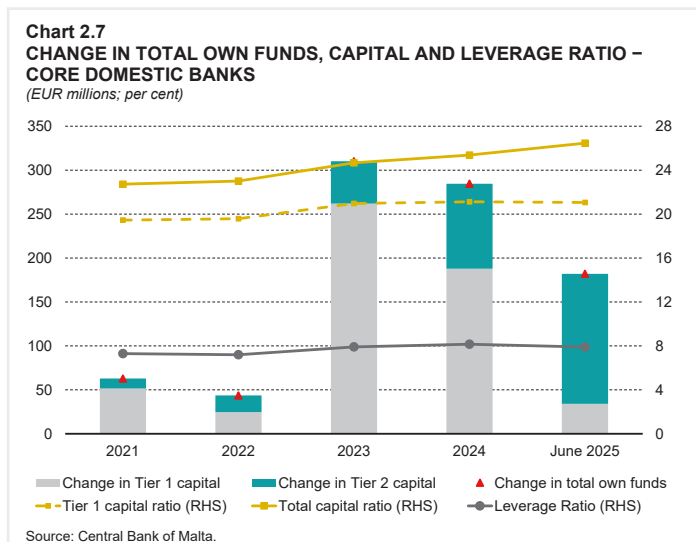
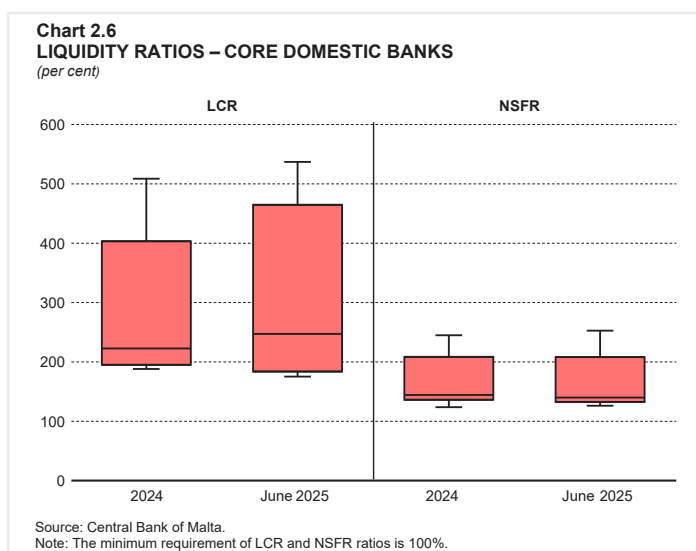
2.1.5 Capital and leverage

The capital position of these banks continued to strengthen, with the total capital ratio rising to 26.5% by June 2025 (see Chart 2.7). This improvement was driven by a 6% increase in total own funds, which outweighed the 1.7% increase in total risk-weighted exposures. The expansion in total own funds was primarily driven by higher Tier 2 capital, attributed to an increase in subordinated bonds by one bank. The banks' risk profile improved, as risk-weighted assets as a share of total assets dropped by 0.8 percentage points to 38.9%. Meanwhile, despite retreating somewhat, the leverage ratio stood well above the regulatory threshold at 7.9%.

2.1.6 Profitability

After several years of robust profitability, core domestic banks experienced a slowdown in the first half of 2025, with pre-tax profits declining by almost 9% (see Chart 2.8). As a result, the post-tax return on equity (ROE) and ROA fell to 10.2% and 0.9%, respectively, compared to 11.6% and 1.1% at the end of 2024. This moderation brought the performance of this

² Source: [EBA Risk Dashboard - Q2 2025](#)



group of banks closer to their European peers, which reported an ROE and ROA of 10.7% and 0.8%, respectively.³

The main driver behind the lower profitability was a reduction in NII, especially from Eurosystem placements, as banks continued to restructure their balance sheet and reduce such holdings, while the deposit facility rate (DFR) was cut by an additional percentage point. NII on intermediation also retreated by almost 2%, on account of lower earnings from loans to NFCs and OFIs. In contrast, NII from households increased by over 12%, largely supported by the expanding mortgage loan book. Additionally, other NII continued to trend higher, reflecting higher investments in government bond holdings.

The drop in NII on intermediation in recent years resulted in a notable shift in income sources. Its share on gross income fell to almost 50% in June 2025 from the peak of around 68% in 2021, just before the monetary policy tightening phase. During this period, the contraction of the share of intermediation-related NII was due to a faster rise in deposit rates than lending rates. As the ECB's monetary policy eased, both the deposit and lending rates began to decline, with lending rates falling at a faster rate. This continued to weigh on the share of NII from intermediation. Concurrently, other NII grew as banks invested more heavily in government bonds to benefit from the higher bond yields. As a result, other NII grew from 4.5% of gross income in 2021 to almost a fifth by June 2025.

Non-interest income also contributed positively to profitability, up by 9.5%, mainly due to higher fee and commission income and, to a lesser extent, dividend income. On the cost side, non-interest expenses rose by 5.8% driven predominantly by higher staff and other administrative expenses. Concurrently, these banks registered lower reversals of net impairment charges compared to end 2024. The combined effect meant that the operational cost-to-income ratio rose to 55.7% from 52.4% as at end 2024.

2.1.7 Risk outlook

Bank profitability weakened in the first half of 2025, mainly due to sharp declines in NII from Eurosystem placements as policy rates fell. However, ongoing monetary policy easing is also lowering funding costs, which could help cushion some of this impact going forward. Despite the accommodative stance, bond yields have remained elevated, providing a steady income stream on fixed-income instruments, especially sovereign bonds. Concentration risks on these banks' loan books intensified, particularly in property-related lending. Vulnerabilities could also arise since some deterioration in the asset quality of the construction and real estate sectors was also observed.

Looking ahead, these banks are likely to remain exposed to cross-cutting risks, including cyber threats, digital disruption, and climate-related challenges. To strengthen resilience, banks should continue to enhance their cybersecurity frameworks in line with the EU's Digital Operational Resilience Act (DORA). Investing in secure digital infrastructures and regularly assessing vulnerabilities helps mitigate both operational and systemic risks. At the same time, banks should embrace digitalisation strategically; modernising legacy systems, enhance customer experience, and leveraging data analytics, while maintaining strict compliance and resilience standards. This is fundamental also in view of the rising competition from fintech firms. While essential, these initiatives are likely to result in higher expenditure, which may temporarily impact profitability.

Although climate and nature-related risks tend to be longer-term in nature, banks must still integrate these risks into their risk management and stress testing frameworks. This includes identifying climate-related exposures, assessing transition and physical risks, and embedding them into capital planning processes. Institutions need to place greater emphasis on sustainability and integrating climate-related and environmental risks into their frameworks.

Against this backdrop, core domestic banks should remain vigilant and continue to maintain strong capital and liquidity buffers, as well as adopting prudent lending practices.

³ See footnote 2.

2.2 Non-core domestic banks

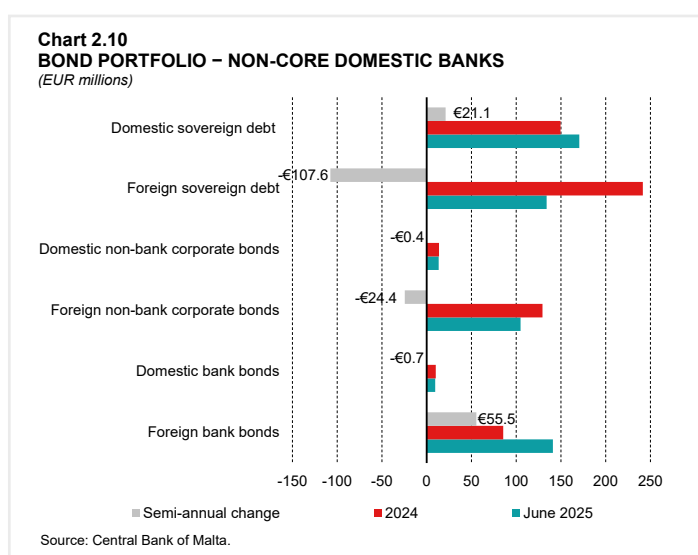
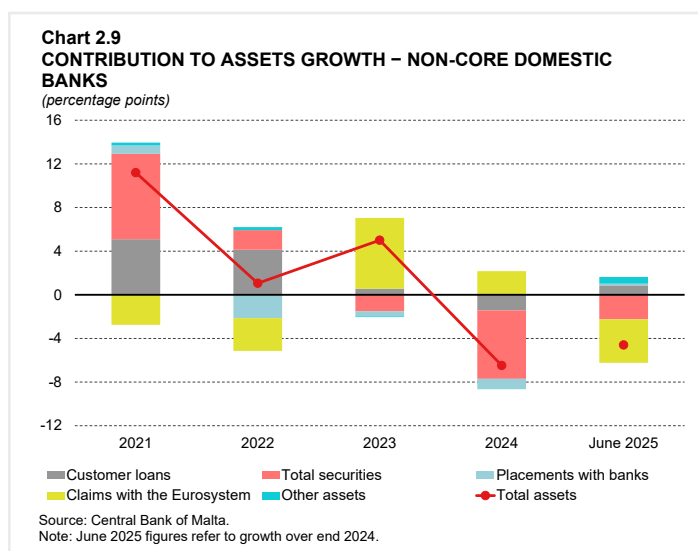
In the first half of 2025, the assets of the non-core domestic banks fell by 4.6% to €3.2 billion, representing 13.5% of GDP. This contraction primarily reflected lower Eurosystem placements, which declined by approximately 14% to account for just over a quarter of these banks' overall assets. To a lower extent, securities holdings also dropped. Partially offsetting this decline was an expansion in the customer loan book and to a lesser extent inter-bank claims. The latter rose by 2.6% because of placements with foreign unrelated banks to represent 6.3% of total assets (see Chart 2.9). Other assets also increased, mainly in the form of loan interest and financial derivatives due, although on aggregate other assets remain limited to 4.4% of the balance sheet.

2.2.1 The securities portfolio

These banks reduced their debt securities holdings by 9%, which account for almost 77% of the overall securities portfolio, equivalent to almost 18% of assets. Such contraction was mainly driven by lower foreign sovereign paper holdings, which fell by almost 45%, partly offset by an increase in domestic sovereign debt (see Chart 2.10). As a result, the share of sovereign paper on overall debt securities fell by 9.0 percentage points, but at 53.1%, such assets remained the largest component. Corporate bonds fell by 17.4%, making up around a fifth of total debt securities holdings. In contrast, bank bond holdings, mainly pertaining to foreign entities, rose by around 57%, with their share increasing by 11.1 percentage points to 26.2%.

As a result of the above developments, the high-rated bonds declined by almost a quarter, to represent around a third of the overall bond holdings in June 2025. In contrast, medium-rated bonds rose by 4.0%, such that medium and high-rated bonds together still represented nearly 89% of total securities. Both low and unrated debt securities declined, with their shares remaining broadly unchanged from December 2024.

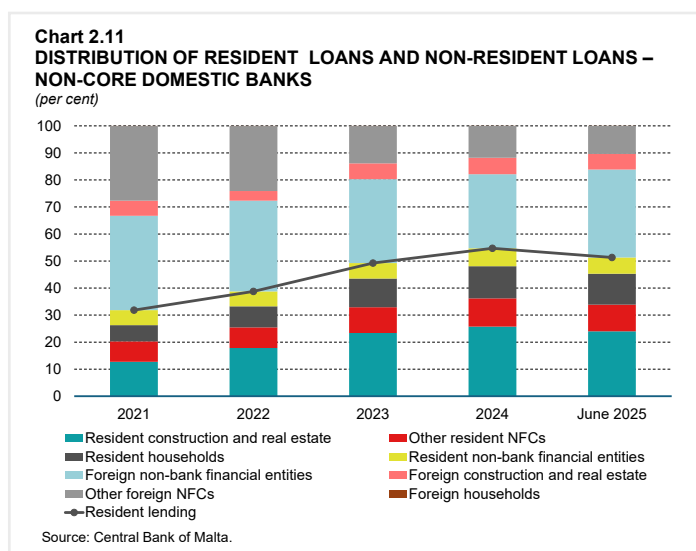
Holdings in equities fell by 9.8% to around 23% of overall securities. The majority, around 95%, consisted of direct equity holdings in subsidiaries. The remaining share consisted of holdings in non-money market investment funds.



2.2.2 Loan portfolio

In the first six months of the year, customer loans grew by 2.3%, exclusively driven by a 10% growth in non-resident loans, which now account for almost half of overall loans (see Chart 2.11). Such increase stemmed entirely from foreign non-bank financial entities, as otherwise credit to foreign NFCs fell by 7.8%, primarily reflecting lower loans towards the professional, scientific and technical activities, and wholesale and retail trade sectors. Conversely, following eight years of growth, resident customer loans declined by 4.1%, with their share of overall customer loans dropping to 51.3%. This decrease resulted

mainly from lower NFC lending, driven by companies operating in the construction and real estate activities and the wholesale and retail trade sector. Lending towards resident non-bank financial entities and households also declined, by 7.0% and 1.7%, respectively.



2.2.3 Credit quality

The NPL ratio improved by 0.1 percentage points to 1.0%, as the overall stock of NPLs declined by a faster rate than outstanding loans. When excluding placements with the Eurosystem, the improvement was more pronounced, with the NPL ratio declining by 0.4 percentage points to 1.7%, reflecting the significant reduction in such balances.

The overall decline in NPLs was mainly driven by NFCs, particularly the non-resident entities in the construction and manufacturing sectors. In contrast, NPLs from resident NFCs increased, especially in the real estate activities sector. This rise was partly offset by lower NPLs of resident firms in the accommodation and food services sector. Consequently, the overall NFC NPL ratio fell by 0.2 percentage points to 3.0%. Household NPLs also saw a notable decline of around 17%, which being entirely attributable to improvements in the resident portfolio, resulted in an overall household NPL ratio of 0.7%. Furthermore, Stage 2 loans fell by around 22%, mainly on account of NFCs loans, pushing their share down by 1.3 percentage points to 3.7% of overall loans. This indicates improving expectations regarding asset quality. At the same time, Stage 3 loans fell by almost 18%, accounting for 1.5% of total loans, while Stage 1 loans increased to represent the remaining share.

In line with lower NPLs, these banks reduced their provisioning levels by 11.2% in the first half of the year. This was driven mainly by Stage 3 provisions, which share fell by 5.6 percentage points to 49.2% of overall provisions. Stage 2 provisions declined marginally, while Stage 1 provisions rose, with both their shares increasing to 26.3% and 22.9%, respectively. Notwithstanding, the coverage ratio improved by 3.0 percentage points to 74.2% in June 2025, as NPLs fell at a faster pace than provisions.

The forbearance ratio edged up from 1.4% in December 2024 to 1.9% in June 2025, driven by higher performing exposures with forbearance measures.

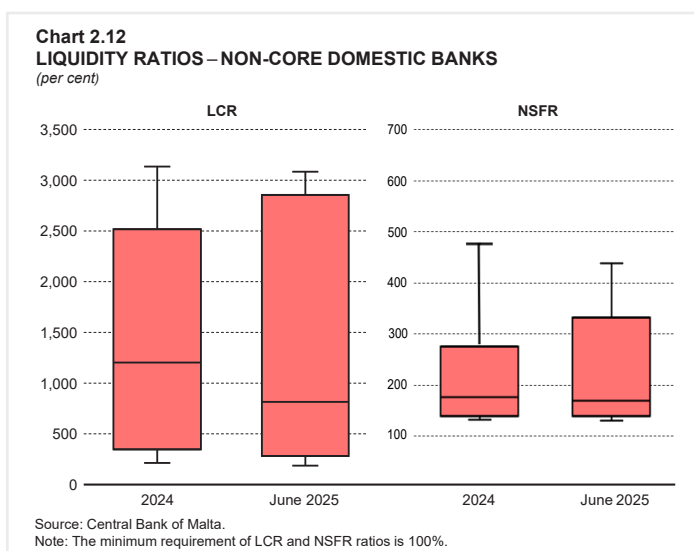
2.2.4 Funding and liquidity

The decline in the banks' balance sheet was primarily driven by a 4.2% drop in customer deposits, which financed about 78% of total assets. The drop was entirely driven by non-resident deposits, which fell by 9.0%, mainly due to outflows from non-bank financial entities, and, to a lower extent, private NFCs and households. A significant portion of this decline stemmed from the non-renewal of maturing time deposits, possibly influenced by

declining interest rates. In contrast, resident customer deposits grew by almost 8%, increasing their share to 32.1% of overall customer deposits. This growth was mainly driven by resident household deposits, which rose by almost 13%. Indeed, despite declining, the interest rates on resident deposits by these banks remained more elevated than mainstream banks. The increase was mainly concentrated in savings and withdrawable on-demand deposits, although time-deposits by resident clients also rose.

Non-retail funding remained limited, with interbank funding declining by more than a third, financing only 3.0% of total assets. By end June 2025, Eurosystem funding declined by around 8%, reflecting lower participation in seven-day USD operations, remaining limited to just 1.1% of the overall balance sheet.

The short-term liquidity position of this group of banks deteriorated slightly, with the LCR declining by 22.4 percentage points, mainly due to lower liquid assets, particularly central bank assets, and to a lower extent, government securities and withdrawable central bank reserves. Despite the decline, the LCR remained robust at 394.6%, well above the regulatory minimum, with lowest ratio among these banks still at a supportive 186% (see Chart 2.12). Meanwhile, the NSFR improved by 1.4 percentage points to 182.4%, with ratios ranging between 129.6% and 437.6%, continuing to exceed the regulatory threshold.

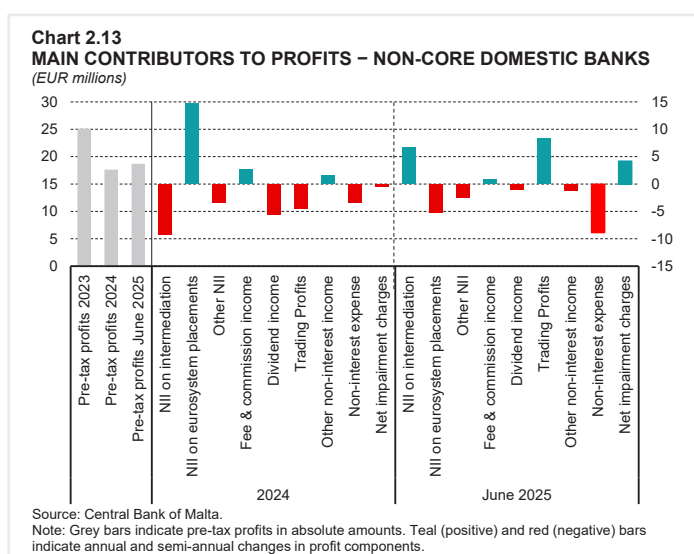


2.2.5 Capital and leverage

The total own funds of non-core domestic banks decreased marginally by 0.9%, owing exclusively to a reduction in Tier 1 capital. Concurrently, overall RWAs rose by 2.2%, mainly driven by higher credit risk. Consequently, both the total capital ratio and the Tier 1 Capital ratio declined, albeit at the healthy level of 22.5% and 20.2%, respectively. Furthermore, the drop in overall assets and the increase in RWAs, worsened the ratio of RWA-to-total assets by 3.7 percentage points to 56.5%. Meanwhile, the leverage ratio remained strong at 10.5%.

2.2.6 Profitability

Non-core domestic banks' pre-tax profitability increased by around 6%, with the post-tax ROE and ROA standing at 4.0% and 0.5%, respectively. This improvement was primarily driven by higher non-interest income, as trading losses reported in 2024 were reversed by June 2025. To a lower extent, fees and commission income also contributed to the increase, partly offset by lower dividends receivable (see Chart 2.13). Meanwhile, NII contracted by 1.7%, pushing down its share in total gross income by 5.4 percentage points to 65.8%. This resulted from lower interest income



on Eurosystem placements, which fell by almost 16%. Furthermore, other NII fell by almost 25%, reflecting the reduction in fixed-income securities. In contrast, NII from intermediation activities rose by 31.3%, as interest expenses payable on deposits, particularly by households and non-bank financial entities fell at a faster rate than the interest earned from loans, especially to NFCs and non-bank financial entities. This reflects the easing of the monetary policy stance, alleviating funding pressure costs. In addition, net impairment charges dropped by 71.2%. However, non-interest expenses rose by 13.4% over 2024, due to an increase in operating expenses and to a lower extent staff costs, contributing somewhat to lowering profits. As a result, given that operational costs grew at a faster rate than income, the operational cost-to-income ratio rose from 73.3% in December 2024 to 78.3% in June 2025.

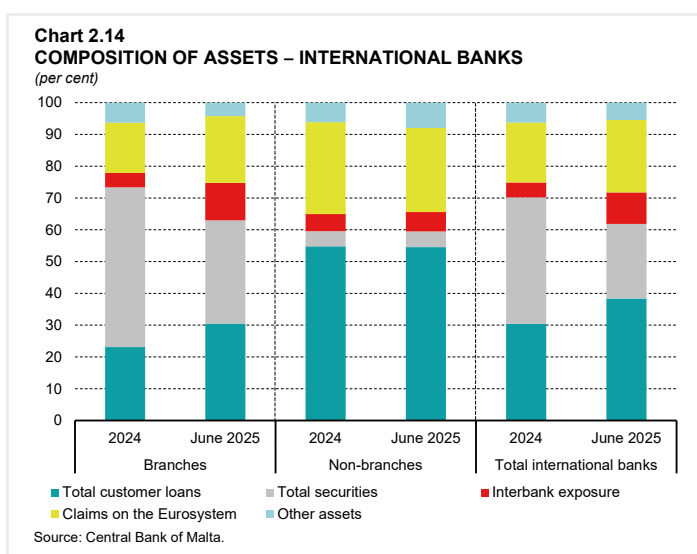
2.2.7 Risk outlook

Looking ahead, signs of a weaker global economic growth may exert pressures on some banks' balance sheet and profitability, given their specific business model. As such, the trajectory of profitability will largely depend on these banks' ability to diversify their income sources and manage their cost efficiency. With interest rates expected to stay low and Eurosystem placements declining, interest income is likely to continue trending downwards. Additionally, the lower holdings in securities also contributed negatively to profitability, potentially impinging on future income streams. However, these banks are strategically rebalancing their balance sheets to enhance profitability. This includes an expansion of their customer loan books, as well as wider interest rate margins, as deposit rates fell more than those on loans. The shift also includes a reconfiguration of deposit structures away from non-resident time deposits towards resident on-demand deposits, which carry lower interest rates. This strategic repositioning suggests a deliberate effort to optimise returns in a low interest rate environment, cost efficiency and diversification of income sources challenges. These banks maintain robust capital positions and healthy asset portfolios, with liquidity indicators well above the regulatory thresholds. Still, it remains important for them to continue to adopt prudent risk management practices to safeguard long-term resilience.

2.3 International banks

The balance sheet of international banks contracted by just over a fifth in the first half of 2025, representing 42.6% of GDP. This decline was entirely driven by the foreign bank branches, whose assets fell by almost a third. In contrast, the total assets of subsidiaries and stand-alone banks rose by 10.4%.

The main driver behind the consolidation of the foreign bank branches' balance sheet was a reduction in their securities holdings, with their share contracting to 32.5% of total assets. Customer loans and Eurosystem placements also declined, yet their relative share in total assets increased to account for more than a third and a fifth, respectively. Concurrently, inter-bank exposures increased, though they remained relatively more contained (see Chart 2.14). The growth of the non-branches' total assets was primarily driven by customer loans, which accounted for over half of their assets. The remaining asset classes also contributed to such increase, yet to varying degrees. Eurosystem placements remained the second most significant asset class, despite a decline in their relative share.



2.3.1 The securities portfolio

The securities portfolio of international banks declined by more than half compared to 2024, reducing its share of total assets from 39.7% to 23.5%. Such decline stemmed entirely from foreign bank branches which decreased significantly their holdings of Turkish Government paper. As a result, the share of foreign government bonds declined to a still substantial 84.6% of the international banks' securities portfolio. Meanwhile, MFI bond holdings more than doubled, though they represented just 8.6% of the overall portfolio. In contrast, bond holdings by subsidiaries and stand-alone banks rose by 14.5%. This was mainly driven by holdings of foreign NFC bonds, which now make up almost three-quarters of their investment portfolio. Concurrently, holdings of domestic sovereign paper rose marginally, accounting for a mere 1.5% of the non-branches' portfolios.

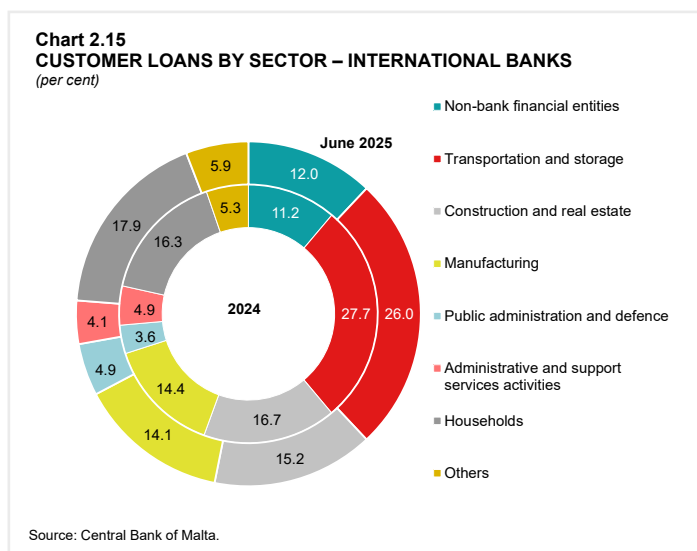
The bond portfolio of international banks remained largely skewed towards unrated and speculative grade bonds, mostly reflecting the investments of the branches of foreign banks in Turkish sovereign paper. The remaining 0.1% are invested in medium-rated bonds, exclusively by the non-branches.

Equity holdings rose by 21.8% over 2024 exclusively by the non-branches. Yet these accounted for just 1.7% of the securities portfolio of international banks.

2.3.2 Loan portfolio

The overall customer loan book of international banks also contracted to account for 38.4% of international banks' assets. This was also influenced by developments within the foreign bank branches, as otherwise the non-branches saw a growth of almost 10%. Overall NFC loans, exclusively driven by the branches, contracted by 5.4% to about 70% of the overall customer loan book in June 2025. The largest drops were recorded in the transportation and storage and the construction sectors, which nonetheless remained the two largest NFC sectors in terms of lending (see Chart 2.15). Concurrently, consumer credit grew by 7.8%, this time driven by non-branches, to represent almost 18% of total customer loans. Similarly, lending to non-bank financial entities rose by 5.5% to 12.0% of customer loans, reflecting growth from the non-branches, while foreign bank branches reported a decline.

Interbank placements rose by almost 64% compared to end-2024, reaching almost 10% of total assets. Such growth was primarily driven by intragroup placements from foreign bank branches. Non-branches also reported an increase in such placements, predominantly with foreign unrelated banks.



2.3.3 Credit quality

The asset quality of these banks' loan portfolios improved slightly, with the NPL ratio declining by 0.1 percentage points to 1.6%. This reflected both a 1.5% reduction in NPLs and a 2.1% increase in loans and advances. As evidenced in Chart 2.16, the dispersion of NPL ratios among international banks also narrowed during the first half of 2025.

The drop in NPLs stemmed primarily from consumer credit NPLs, which fell by 1.2%, though they still represented most of the overall NPLs. As a result, the household NPL ratio eased by 1 percentage point,

but remained elevated at 15.6% in June 2025. NFC NPLs also declined, largely due to developments in the arts, entertainment, and recreation sector as well as the construction sector, resulting in an NFC NPL ratio of just 0.1%. Similarly, NPLs of non-bank financial entities fell by 10.7%, with the NPL ratio standing at 0.3%. Excluding Eurosystem placements, the overall NPL ratio remained unchanged at 2.7%.

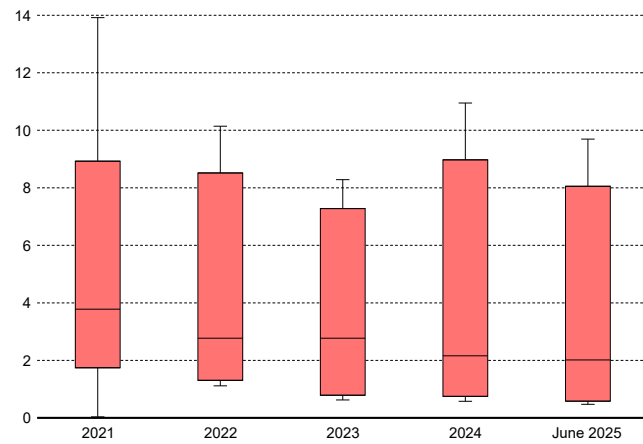
On a negative note, Stage 2 loans rose by 37.4%, increasing their share of overall loans by almost 2 percentage points to 6.3%, indicating early signs of asset quality deterioration (see Chart 2.17). This mainly reflected higher Stage 2 loans by the non-branches, largely driven by NFC lending. Furthermore, although Stage 3 loans fell by 1.3%, the faster drop in Stage 1 loans caused their share to remain stable at 2.7%. Provisions fell by 0.2%, reflecting both a drop in NPLs and loans. As a result, Stage 3 provisions declined by 3.1% to 53.5% of total provisions. In contrast, Stage 2 provisions rose by 7.8%, mirroring the increase in Stage 2 loans. Stage 1 provisions also increased to a lesser extent, up by 1.9% to represent over a third of overall provisions. Overall, NPLs remained fully covered, with a coverage ratio of 108.8%.

2.3.4 Funding and liquidity

In line with their heterogeneous business models, these two groups of banks adopted different funding structures. Branches continued to rely on wholesale funding, while non-branches remained funded primarily through customer deposits, which made up around two-thirds of their total liabilities (see Chart 2.18).

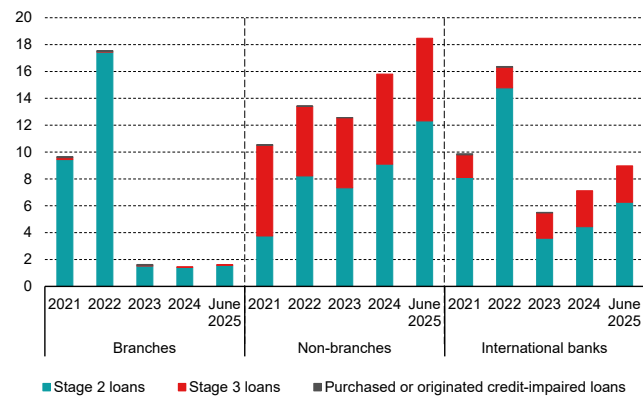
The contraction in the branches' balance sheet was mirrored by a decline of about a third in wholesale

Chart 2.16
OVERALL NPL RATIO – INTERNATIONAL BANKS
(per cent)



Source: Central Bank of Malta.

Chart 2.17
SHARES OF HIGHER CREDIT RISK LOANS – INTERNATIONAL BANKS
(per cent)



Source: Central Bank of Malta.

Note: Shares are calculated on the total portfolio of loans excluding placements. When considering Stage 1 loans, the shares would add up to 100%.

Chart 2.18
SOURCES OF FUNDING – INTERNATIONAL BANKS
(per cent)



Source: Central Bank of Malta.

funding, largely from intragroup placements. Meanwhile, the growth of subsidiaries and stand-alone banks was predominantly funded through higher customer deposits, which led to a 9.1% increase in the overall customer deposits of international banks. The overall increase stemmed mainly from households, up by 18.1% over 2024, while funding obtained from non-bank financial entities also rose by 8.5%. The overall increase was concentrated in withdrawable on-demand accounts, although fixed accounts also increased and remained the most preferred source of retail funding at 57.7% of the total. Other forms of funding remained limited. Although non-branches issued debt securities, increasing nearly fivefold, these remained limited to just 0.3% of the international banks' balance sheet.

In terms of liquidity, despite deteriorating during the first half of 2025, non-branches continued to operate with ample buffers, as evidenced by an LCR of 308.3% and an NSFR of 137.1%. The drop in LCR was due to higher net liquidity outflows, though this was partly offset by an increase in liquid assets, particularly central bank reserves.

2.3.5 Capital and leverage

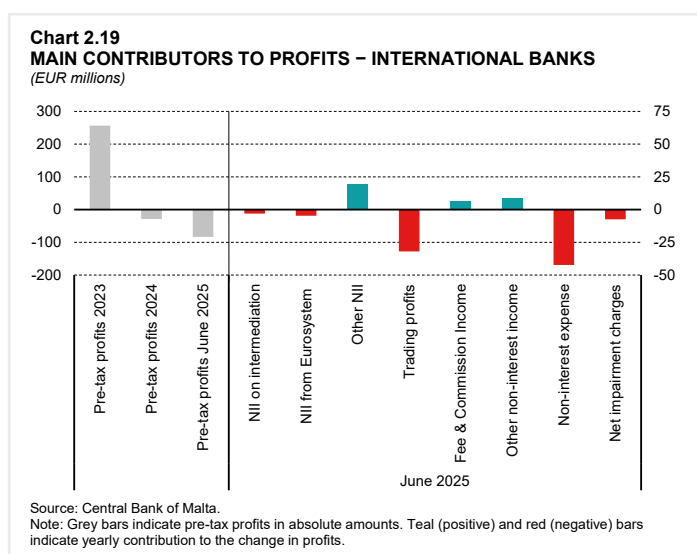
Despite a drop of 0.6 percentage points in the first half of 2025, non-branches' total capital ratio remained robust at 36.9%. The deterioration stemmed from a 3.6% increase in RWAs. This reflected higher credit risk exposures and, to a lesser extent, market risk, partly offset by a decline in operational risk. In parallel, total own funds rose by 1.8%, driven exclusively by higher Tier 2 capital. Meanwhile, despite declining by 3.6 percentage points over 2024, the leverage ratio for the non-branches remained strong, standing at 25.3%.

2.3.6 Profitability

International banks reported a deterioration in profitability, with pre-tax losses more than doubling. Consequently, post-tax ROA declined from -0.3% to -0.7%. The losses were exclusively driven by foreign bank branches, although non-branches also saw a drop in their pre-tax profits, down by more than a quarter. The overall deterioration in profitability was mainly attributed to higher non-interest expenses, as well as lower non-interest income, reflecting trading and revaluation losses from the sharp and continued depreciation of the Turkish Lira. This weakness persisted in the first half of 2025, driven by structural vulnerabilities, high inflation, external imbalances, and political shocks. Furthermore, the branches reported lower trading profits while the non-branches recorded a rise in net impairment charges, leading to overall international banks' net impairment charges to increase by 8.1% over 2024.

Meanwhile, NII rose by 7.9%, exclusively from the branches, as non-branches reported a 3.0% drop. The increase in overall NII was concentrated in non-intermediation activities, particularly from investment portfolios owing to the high yields on Turkish sovereign bonds. This occurred despite a reduction in the overall holdings of such securities. On the other hand, net interest earned on Euro-system placements fell by 17.4%, as the ECB DFRs fell, while NII from intermediation activities fell by 2.5%, largely on the back of increased interest expenses (see Chart 2.19).

The cost-to-income ratio has deteriorated significantly over the past decade particularly driven by the



branches. After reaching a low of 11.5% in 2014, efficiency remained relatively stable until 2020, supported by steady income growth and contained operating expenses. However, since 2020 efficiency deteriorated amid slowing income growth due to global economic disruptions alongside persistent cost pressures. In the first half of 2025, the cost-to-income ratio deteriorated further to reach 94.9% by June 2025 from 80.0% six months earlier. This sharp increase was mainly driven by branches which faced a surge in expenses. For non-branches, the deterioration in the first half of 2025 was more contained, with the ratio increasing by 3.3 percentage points to 48.6%. However, this still represented more than double the 22.5% reported in 2014, as operating costs continued to outpace income growth.

2.3.7 Risk outlook

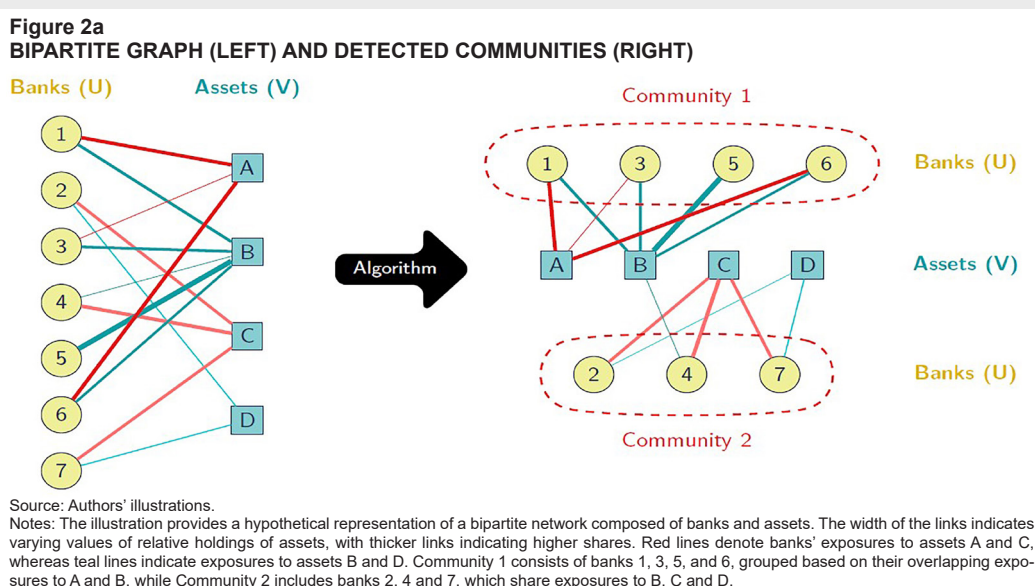
The risk profile of international banks remains vulnerable to profitability challenges, which are likely to persist unless overall income streams strengthen, losses from trading and credit impairment charges are effectively managed, and capital is used efficiently to generate sustainable returns. While the overall stock of NPLs has declined, suggesting some improvement in credit risk, underlying vulnerabilities remain. The household NPL ratio remains elevated, reflecting the business model of certain banks and weak euro area economic growth prospects, which continue to weigh on non-resident households' debt servicing capacity and warrant close monitoring. Additionally, the continued growth in Stage 2 loans and higher net impairment charges also pointing towards a build-up in credit risk. Foreign bank branches continued to consolidate their balance sheets, primarily through reductions in securities holdings. Nevertheless, most of the remaining exposures are concentrated in speculative-grade bonds, primarily Turkish sovereign paper. This underscores the need for greater portfolio diversification and the adoption of hedging strategies to mitigate country-specific and market-related risks. However, non-branches banks' capital, asset quality and liquidity positions remained robust, providing sufficient buffer to absorb potential shocks and support the banks' resilience.

BOX 2: A CREDIT RISK-BASED CLUSTERING APPROACH FOR BANKS IN MALTA¹

In this box we introduce a bank clustering framework based on credit risk for the Maltese banking sector. To this end, we use bank-level data from supervisory financial reporting on credit risk to build a bipartite network model and detect communities within the network. The detection of these communities reveals latent subsets of banks that are closely linked through overlapping portfolios. Our results are intended to complement the official classification of banks by domestic relevance as published in the Central Bank of Malta's Financial Stability Reports. Importantly, the proposed framework contributes to the assessment of credit risk interconnectedness across banks as a potential channel for systemic risk propagation, offering a valuable foundation for future research on the potential impact of shocks to key exposures.

We determine a set of bank clusters that reflects similarities in key exposure patterns, incorporating information on both geographical distribution and credit counterparty, using the Macroprudential Two-mode Network Model (M2MN) developed by Maas et al. (2025).² The model has three modules, one to construct the bipartite network and conduct network analysis, including community detection, one to apply an exposure-specific credit risk shock and study the capital impact on banks via direct losses, and a third module to study the second-round effects (default cascades) brought about by a depreciation in the value of overlapping assets via their liquidation, which result in losses to other banks not directly impacted by the original shock.

This box presents the key results based on the first module of the M2MN model. Figure 2a presents a schematic illustration of a bipartite network and what the communities detection procedure



¹ Written by Dr Michele Andreani, Principal Research Economist within the Financial Stability Research Office of the Central Bank of Malta and Dr William Gatt Fenech, Manager of the Financial Stability Research Office of the Central Bank of Malta. The authors would like to thank Alan Cassar and Wendy Zammit for helpful comments. This box was written with the help of an IMF Technical Assistance programme conducted in Malta in 2024. We are grateful to Martin Saldias for his invaluable contributions to this project, including leading both virtual and in-person meetings, providing relevant codes as part of the IMF Technical Assistance programme, and engaging in follow-up discussions on the results presented herein. Several aspects of this work build upon the analyses carried out during the IMF Mission. Thanks are also due to Pierpaolo Grippa from the IMF for coordinating the Technical Assistance programme.

² Maas, D., Panzica, R., and Saldias, M. (2025), Developing a Financial Stability Network Model: The Macroprudential Two-Mode Network (M2MN) toolbox, *Working Paper Series*, Banco de Portugal, 12.

returns. An extended discussion of the methodology and more detailed discussion of the results is provided in Andreani and Gatt (2025).³

Data

We use confidential supervisory data from Maltese resident banks. These data comprise total exposures disaggregated by geography and counterparty, as reported by banks in accordance with the Common Reporting framework (COREP) established by the European Banking Authority (EBA). The data include 17 banks which are active in Malta and have a banking licence granted by the Malta Financial Service Authority (MFSA). Branches of international banks located in the EU and the Rest of the World (RoW) are excluded from our sample.⁴ We aggregate the country-specific granular exposure data into six geographical regions and seven counterparty categories, resulting in a total of 42 distinct exposure types. Table 2a presents the geographical aggregation alongside the corresponding counterparty metadata. “M3C” refer to non-euro area countries that are deemed to be of significant relevance to the euro area banking sector.⁵ We also highlight a group called “Main SSM”, which includes Germany, the Netherlands, and France.⁶ Additionally, we refine the standard NFCs category by distinguishing between “small and medium enterprises” (SMEs) and “large” NFCs.⁷ Throughout this box bank names and their respective exposures are not shown to preserve confidentiality.

Table 2a
GEOGRAPHICAL AGGREGATION AND COUNTERPARTIES

Geography	Counterparty
Domestic	Sovereign
M3C	Financial institutions
RoW	NFCs (small)
Main SSM (DE, NL, FR)	NFCs (large)
Other SSM	Retail
Other EU	RRE
	Other

Sources: Central Bank of Malta; EBA; ESRB; authors' calculations.

Figure 2b presents a materiality assessment of exposures by geography and counterparty for the entire banking sector. The data is visualised using a heat map, an effective tool for representing the distribution of total exposure shares.⁸ This visualisation provides crucial insights into key exposure classes that are likely to shape the formation of bank communities. The first key observation is that exposures are not equally distributed. Maltese banks predominantly hold domestic exposures, representing just over 61% of their total portfolios. About 27% of the rest of their exposures pertain to entities domiciled in SSM countries, and 16% of which are concentrated within the Main SSM countries (Germany, Netherlands and France). Most banks' exposures – around 91% – are therefore

³ Andreani, M., and Gatt, W. (2025), A credit risk-based clustering approach for banks in Malta, Central Bank of Malta *Working Paper* WP/07/2025.

⁴ These four branches – Akbank and Turkiye Garanti Bankasi (both headquartered in Turkey), Credit Europe Bank (Netherlands), and European Depository Bank (Luxembourg) do not engage in any domestic banking activity.

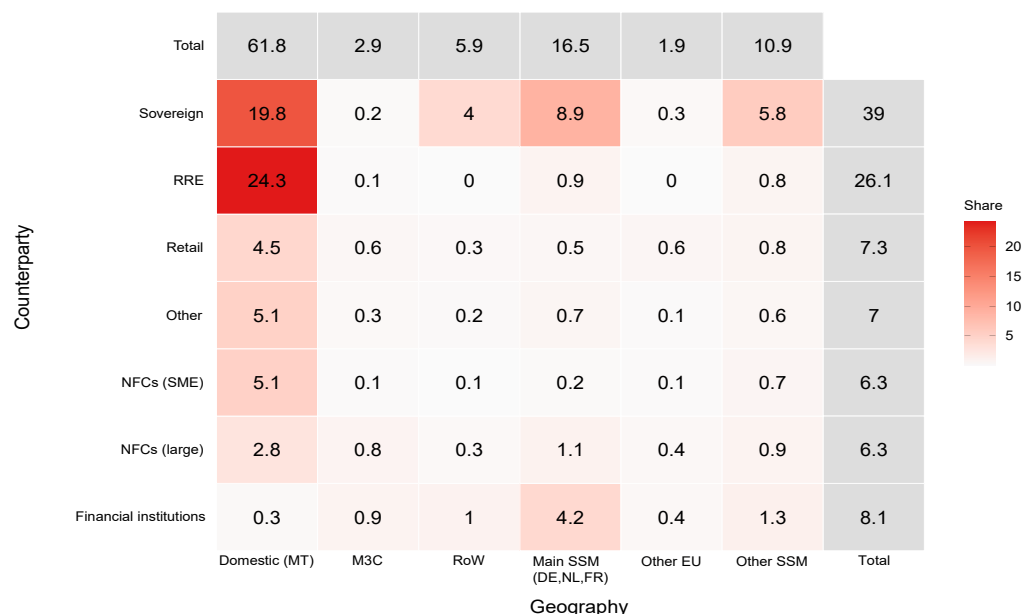
⁵ This list includes Brazil, China, Hong Kong, Mexico, Russia, Singapore, Switzerland, Turkey, the United Kingdom, and the United States of America. The initial list was adopted under Decision ESRB/2015/3, which provides for annual revisions of the list starting from 2017. Last update: 23 June 2022.

⁶ These countries are highlighted due to the significant share of geographical exposures held by Maltese banks, as identified through a country-specific materiality assessment.

⁷ See [EBA, ANNEX II, REPORTING ON OWN FUNDS AND OWN FUNDS REQUIREMENTS](#), p. 106, and [EU, Regulation No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and amending Regulation \(EU\) No 648/2012](#), Article 112, for further information on COREP templates.

⁸ Exposure amounts are converted into shares of total assets for each bank. This allows the model and the algorithm we use to focus on composition similarity, regardless of bank size, which could otherwise influence the results.

Figure 2b
MATERIALITY ASSESSMENT OF EXPOSURES



Sources: Central Bank of Malta; authors' calculations.

Notes: The figures are percentages of total exposures, for the period 2024Q3. All entries sum to 100 and are based on the total exposures of the 17 banks in the sample. Figures may not add up due to rounding.

geographically concentrated within Europe. The second observation is that a significant share of most banks' portfolio is composed of holdings of sovereign bonds, constituting about 39% of total exposures, with allocations spanning most geographical regions except M3C and other EU countries. Meanwhile, exposures to RRE represent around 26%, and as expected, the absolute majority are domestic. Among holdings relating to Main SSM countries, loans to financial institutions from these jurisdictions represent the second largest share.

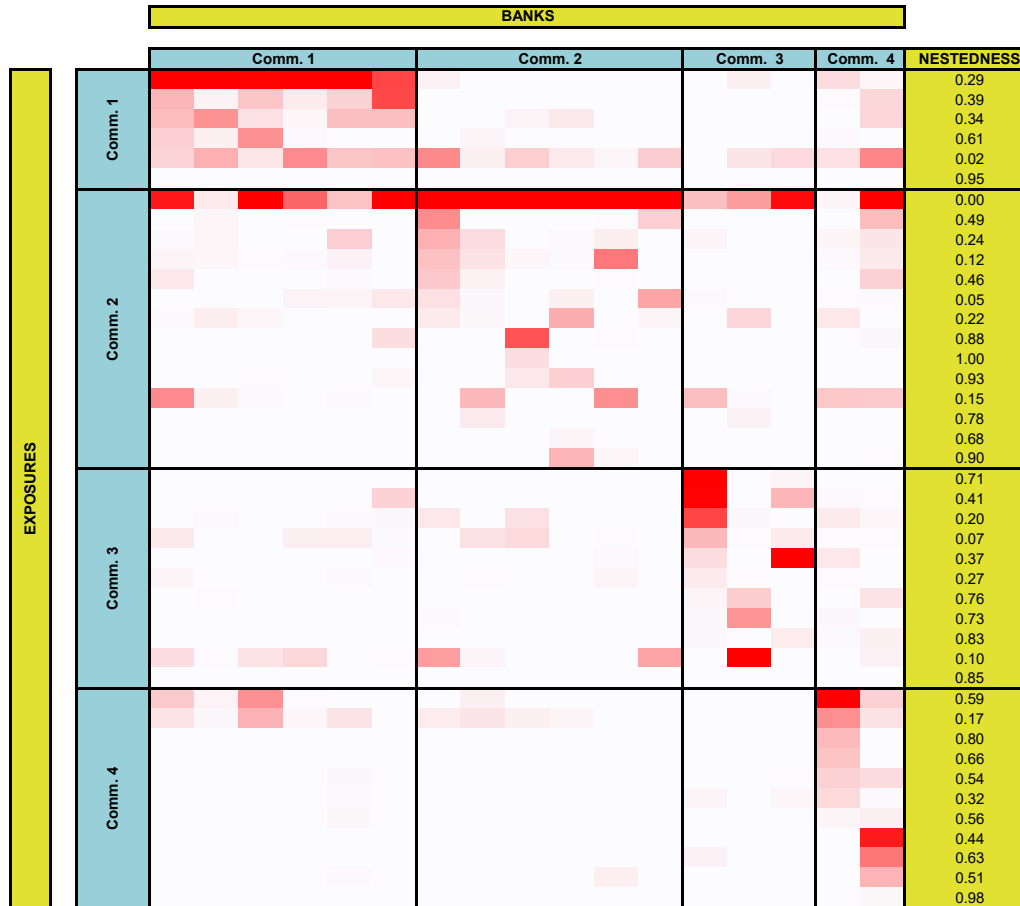
Results

Figure 2c displays the bipartite network with both banks and exposures ordered by their respective community labels. Exposures in darker red (a larger share of a given exposure) are more likely to play a significant role in determining the clustering of banks. This means that a higher share of exposures indicates a stronger link between banks and specific exposure classes. The ordering of the communities and exposures is set such that it illustrates a nested structure within each community, yielding most of the high exposures shares along the main left diagonal of this matrix.

This layered structure establishes pathways for potential shock transmission within each community, which can expose the network to vulnerabilities associated with systemic exposures. One exposure has a nestedness rank of 0.0, meaning that it is the most commonly-held asset among all banks (see Figure 2c, seventh row from the top). In a hypothetical scenario in which this asset experiences a shock that impacts its value, this shock would affect almost all banks directly and could trigger further cascading effects if the impact erodes more than the regulatory minimum capital requirement of any given bank. Absent any direct supervisory intervention, the bank under pressure would likely be forced to fire sale assets, which would depress market prices further, creating additional losses for other banks which hold the same asset. This feedback loop could in turn erode the capital levels of the other banks.⁹ If losses and liquidity stress cannot be contained, the bank defaults with potential cascading effects on other banks.

⁹ Huang, X., Vodenska, I., Havlin, S., and Stanley, H. E. (2013), Cascading failures in bi-partite graphs: model for systemic risk propagation, *Scientific Reports*, 3(1), p.1219.

Figure 2c
BANK AND EXPOSURE COMMUNITIES



Sources: Central Bank of Malta; authors' calculations.

Notes: Each column of the heat map representing the portfolio composition in shares for each bank, which sum to 100 across the 42 exposures listed in the rows. Darker shades indicate higher shares for each bank relative to other exposures on its books. Bank names, exposure types and geographies are not shown to preserve confidentiality.

The node-level metrics shown in Table 2b shed more light on this, by ranking banks based on four indicators. These are the Herfindahl-Hirschman Index (HHI, Herfindahl, 1950; Hirschman, 1945),^{10,11} a concentration measure, Nestedness Rank (Rodriguez-Girones and Santamaria, 2006; Alarcon et al., 2008),^{12,13} a score of exposure specialisation, Normalised Degree (Dalsgaard et al., 2008; Gonzalez et al., 2010),^{14,15} a centrality measure which indicates the relative number of connections with common exposures and its specialisation, and therefore the role that the bank plays in channelling

¹⁰ Herfindahl, O. C. (1950), Concentration in the U.S. Steel Industry. Ph.D. Dissertation, Columbia University. Unpublished.

¹¹ Hirschman, A. O. (1945), *National Power and the Structure of Foreign Trade*. University of California Press, Berkeley, CA.

¹² Rodriguez-Girones, M. A. and Santamaria, L. (2006), A new algorithm to calculate the nestedness temperature of presence-absence matrices, *Journal of Biogeography*, 33(5), pp. 924-935.

¹³ Alarcon, R., Waser, N. M., and Ollerton, J. (2008), Year-to-year variation in the topology of a plant-pollinator interaction network, *Oikos*, 117(12):1796-1807.

¹⁴ Dalsgaard, B., Martin Gonzalez, A. M., Olesen, J. M., Timmermann, A., Andersen, L. H., and Ollerton, J. (2008), Pollination networks and functional specialization: a test using Lesser Antillean plant-hummingbird assemblages, *Oikos*, 117(5), pp. 789-793.

¹⁵ Gonzalez, A. M. M., Dalsgaard, B., and Olesen, J. M. (2010), Centrality measures and the importance of generalist species in pollination networks, *Ecological Complexity*, 7(1), pp. 36-43.

Table 2b
COMMUNITIES AND BANK-LEVEL METRICS

	Comm. 1	Comm. 2	Comm. 3	Comm. 4
HHI (normalised)	0.13 0.31 0.16 0.27 0.28 0.18	0.16 0.35 0.27 0.35 0.33 0.36	0.16 0.29 0.29	0.17 0.08
Nestedness Rank	0.00 0.06 0.13 0.31 0.38 0.44	0.75 0.50 0.69 0.81 0.88 1.00	0.56 0.63 0.94	0.25 0.19
Normalised Degree	0.86 0.81 0.79 0.64 0.64 0.50	0.36 0.50 0.38 0.36 0.33 0.14	0.43 0.38 0.26	0.69 0.76
Weighted Betweenness	0.03 0.05 0.03 0.05 0.03 0.08	0.05 0.25 0.00 0.33 0.00 0.03	0.00 0.00 0.03	0.00 0.08

Source: Authors' calculations.

Note: The heat map for each metric shows darker shades for higher values of the node metrics, except for Normalised Degree, which is shaded darkest for the lowest values.

shocks, and Weighted Betweenness (Borgatti and Everett, 1997; Dalsgaard et al., 2008),^{16,17} another measure of centrality based on the shortest path between banks. The dark red indicates a higher score for all except for the Normalised Degree, which as we show below is inversely correlated with the other indicators, since having more exposures implies lower concentration (HHI) and nestedness (Nestedness Rank). Therefore, we invert the shading pattern for Normalised Degree to make the table more legible.

The pattern observed in Table 2b implies that Communities 2 and 3 are composed of banks which have concentrated portfolios and are therefore highly nested. Consequently, they have a lower Normalised Degree, meaning that these banks share relatively fewer connections to exposures. Although the Weighted Betweenness score is high only for two out of seventeen banks, these are both in Community 2, in line with the other measure of centrality. On the other hand, several banks within Communities 1 and 4 are highly diversified (a low HHI), have less nested portfolios and are therefore connected to relatively more exposures (high Normalised Degree). This nested structure of the Maltese banking system, with more concentration and specialisation within two communities, enhances resilience.

Another use of the bank bipartite network is the identification of bank business models for each community (see Table 2c). This can be based on the level and concentration of the exposures that are common to each community. Consequently, we emphasise that this exercise is based entirely

Table 2c
BANK BUSINESS MODELS

Comm.	Business model	Key sectors
1	Local Generalist	Domestic: RRE , Sovereign , Retail, Other, Large & SME NFC Main & Other SSM, RoW: Sovereign
2	Global Specialist	Domestic: Sovereign , Large NFC, Financial SSM, Other EU, M3C, RoW: Large & SME NFC , Financial, Sovereign
3	European Specialist	Domestic: Sovereign, Large NFC SSM, Other EU: Retail , Large NFC
4	Global Generalist	Domestic: Sovereign , Other Main SSM, M3C, RoW: Sovereign , Financial, RRE, Retail, Other

Sources: Central Bank of Malta; authors' calculations.

Notes: The table shows the business model assigned to each bank community, and the corresponding predominant sectors in each community based on whether they are domestic or domiciled abroad. Sectors marked in bold are the most sizeable across banks in each community.

¹⁶ Borgatti, S. P. and Everett, M. G. (1997), Network analysis of 2-mode data, *Social Networks*, 19(3), pp. 243–269.

¹⁷ See footnote 14.

on credit risk, and the business models may not be comparable with existing business model classifications devised using a more comprehensive assessment. Community 1 is composed of banks which have a significant part of their credit portfolio allocated to domestic RRE and sovereign bonds, but these banks also lend to several other domestic sectors, including retail, SMEs and large NFCs, with some holdings of sovereign bonds from SSM and other countries. Given this diversification across primarily domestic exposures, we label this community as following a *Local Generalist* business model. These banks maintain a broad and diversified portfolio of exposures.

Meanwhile, banks in Communities 2 and 3 tend to specialise in more selected sectors. Community 2 banks primarily issue credit to non-financial SMEs and large corporations and financial institutions, not only within EU countries but also across other M3C and the RoW. Given this large reach over selected sectors, banks within this community are labelled as *Global Specialists*. Similarly, banks in Community 3 tend to focus on lending to the retail sector and large NFCs in SSM and other EU countries, together with lending to domestic large NFCs and holding domestic sovereign bonds. We therefore label this business model as *European Specialist*, owing to its focus on Europe. Finally, the two banks in Community 4 display relatively diverse allocations across both domestic and foreign domiciles, with a significant share of holdings of sovereign bonds but also lending to financial institutions, RRE, retail and the 'other' sectors both locally and abroad. For this reason, banks in this community operate a *Global Generalist* business model.

A foundation for shock and contagion analysis

This box contributes to the categorisation of banks operating in Malta by constructing the first bipartite network model of banks and their exposures. The model leverages this network by applying a community detection methodology to emphasise the significance of overlapping exposures between banks, capturing the indirect linkages which would otherwise not be easily observed. It also lays the groundwork for future research by emphasising the role of overlapping portfolios in shaping the systemic impact of specific asset devaluations within the banking sector. This approach is ideal for studying contagion dynamics triggered by bank losses and failures, offering an understanding of how interconnected risk profiles contribute to the propagation of shocks across the banking network and, eventually, financial instability. Further extensions to the model would allow for the analysis of default not only of banks, but also of non-bank financial institutions, which until recently were typically less studied but can also pose a financial stability risk which warrants a macroprudential response.

BOX 3: THE EVOLUTION OF PAYMENTS TRANSACTIONS BY LICENSED INSTITUTIONS¹

Introduction

A credit institution traditionally serves as an intermediary between depositors and borrowers, with surplus funds channelled into securities holdings and other assets. This model remains central when assessing vulnerabilities such as liquidity risks from deposits or credit risks for loan portfolios. However, banks, alongside e-money and payment institutions, also perform another critical intermediary role, that of facilitating payment transactions. Households and firms routinely rely on these institutions to execute daily operations such as card purchases, credit transfers, or direct debits. The smooth functioning of payments is essential to ensure confidence in the financial system. Any disruption, whether due to cyberattacks, operational failures, or concentration in widely used service provider, can quickly spill into broader financial stability concerns. Even minor disruptions can have outsized effects on consumer confidence and liquidity flows, often making headlines when they occur.²

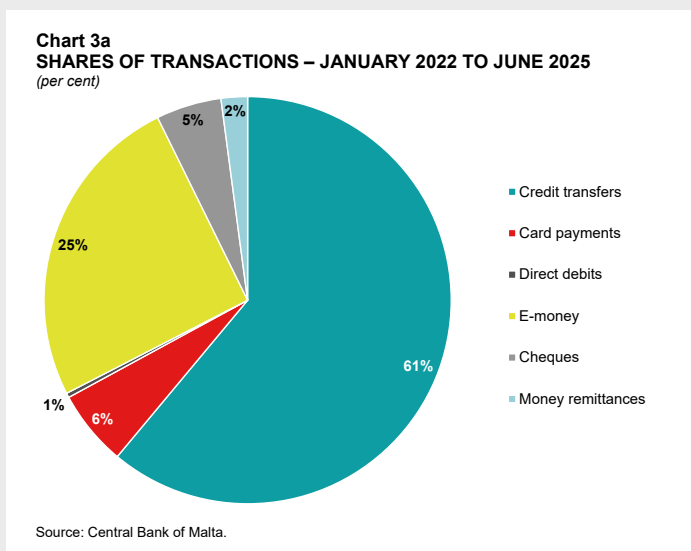
From 2022 onwards, Payment Statistics (PS) began to be reported under an updated framework, providing more comprehensive coverage of payment services across credit institutions, payment institutions and e-money institutions. This box uses this data to assess recent developments in Malta's payments landscape, and to monitor potential structural shifts, particularly as new market players and technologies continue to reshape customers' payment behaviour. It will focus on four main types of payment transactions, being credit transfers, direct debits, card-based payments and e-money transactions, while touching also upon cheques issued and money remittances. Unless otherwise stated, institutions will be grouped as core domestic banks, other banks, e-money institutions, and payment institutions.³ The period assessed is that from January 2022 to June 2025 and reflects transaction flows conducted in the period mentioned.

Payment Statistics

An overview of the PS data from January 2022 to June 2025 highlights the relative importance of different transaction types within Malta's payments landscape.

In value terms, credit transfers dominate, accounting for approximately 61% of all funds transferred (see Chart 3a). This is expected, as credit transfers encompass a broad range of purposes, from transfers between personal accounts to third-party payments for goods and services.

E-money transactions represent the second largest share, making up about 25% of the overall transaction value. As discussed in later



¹ Written by Mr Andrew Spiteri, Manager from the Financial Stability Surveillance Office. The author would like to thank Ms Wendy Zammit, Head, Financial Stability Surveillance and Research Department and Mr Alan Cassar, Chief Officer Financial Stability and Statistics Division, for their invaluable suggestions.

² Example of news headlining the delays of transfers: [Maltatoday: Bank technical issue leads to delay in salaries for UM staff.](#)

³ Other banks include foreign banks operating in Malta under passporting rights, which are active in payments transactions. Payment transactions conducted by the Central Bank of Malta are excluded.

sections, these are primarily driven by e-money institutions facilitating cross-border payments. Card payments account for 6% of the total value, followed closely by cheques at 5%. Money remittances contribute a further 2%, while direct debits remain limited, representing less than 1% of the total value transacted during the period. This distribution underscores the continued reliance on traditional credit transfers, while also reflecting the growing role of e-money and the gradual decline of cheques.

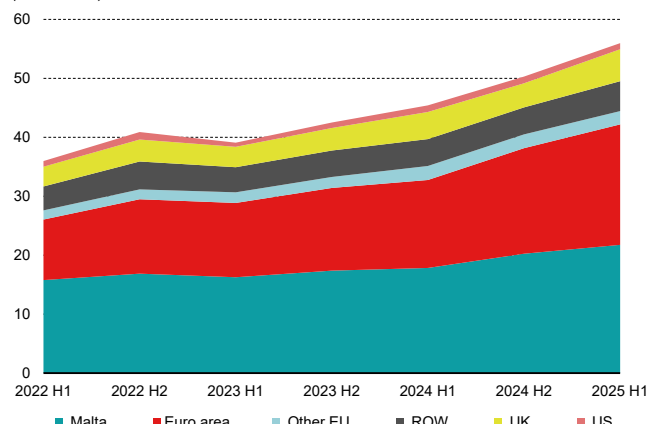
Credit transfers

Credit transfers refer to payment instructions initiated by a payer to transfer funds from their account to that of a beneficiary. These are commonly used for salaries, bill payments, and transfers between individuals or firms.

Over the period assessed, credit transfers rose from €36 billion in the first half of 2022⁴ to €56 billion by the first half of 2025, representing an increase of 55%, reflecting broader digitalisation trends (see Chart 3b).⁵ This was mainly driven by cross-border transactions, largely towards other euro area countries. Domestic transfers also increased, albeit by a slightly slower pace of 38%. On average, throughout the period, around 41% of overall credit transfers were conducted between domestic accounts. Meanwhile, transfers to other euro area countries rose from 29% to 37%. Transfers to the United Kingdom remained stable at around 9%.

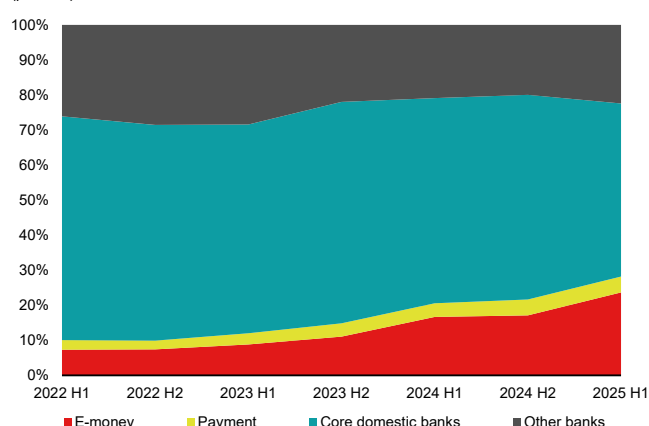
The types of institutions handling credit transfers has also shifted. While bank accounts remained the dominant source, their share fell from around 90% in H1 2022 to almost 72% in H1 2025 (see Chart 3c). This reflected the growing role of e-money institutions, whose share rose from 7.3%

Chart 3b
CREDIT TRANSFERS BY LOCATION
(EUR billions)



Source: Central Bank of Malta.

Chart 3c
CREDIT TRANSFERS BY TYPE OF INSTITUTION
(per cent)



Source: Central Bank of Malta.

⁴ Due to a change in licensing of one institution which transfers were previously reported as e-money transfers, started to be reported as credit transfers in the early part of the period assessed. To avoid a break in series, these were considered as credit transfers for the entire period.

⁵ Similarly, the number of transactions rose from 17.9 million to 26.3 million during the same period.

to 23.7% over the same period, driven by an increase in licensed entities conducting such transfers from nine to 15. Payment institutions also saw modest growth, though their contribution remained limited, with only five institutions reporting such activity.^{6,7}

The expansion of e-money and payment institutions was largely concentrated in cross-border business. Only 14.2% and 21.5% of their respective overall credit transfers were conducted with domestic accounts. Consequently, core domestic banks continued to dominate domestic credit transfers, accounting for approximately three-fourths of the total, with other banks contributing around 18%.

Regarding initiation methods, online banking remained the preferred channel, accounting for nearly three-fourths of all credit transfers. Mobile payment solutions gained traction, reaching around 9% of transfers in H1 2025, particularly among other banks.⁸ Among electronically initiated transfers,⁹ around 70% were conducted through the Single Euro Payments Area (SEPA), with instant credit transfers becoming increasingly prominent, especially via e-money institutions. The remaining share includes 'on-us' intrabank transfers, where both payer and payee accounts are held at the same institution.

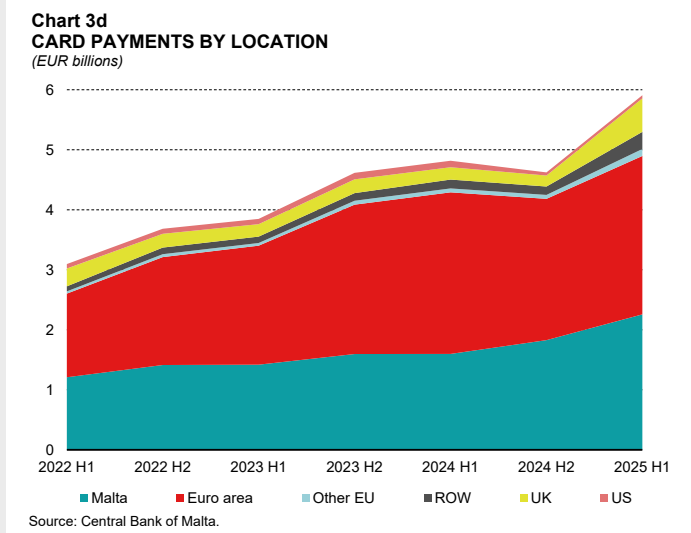
With regards to the authentication practices, Strong Customer Authentication (SCA) was applied to 88% of credit transfers, requiring at least two independent factors such as a password and a one-time code. For the remaining transfers, exemptions were primarily due to payments to self, trusted beneficiaries, or secure corporate payment processes or protocols, which accounted for 97.4% of non-SCA cases.

Fraudulent credit transfers reported between January 2022, and June 2025 amounted to almost €19 million, representing just a negligible fraction of total credit transfers. While this figure is low, continued vigilance is essential, particularly as digital channels expand and new players enter the market.

Card payments

Card payments refer to transactions initiated by a cardholder using a debit, credit, or a prepaid card to make a purchase. These include point-of-sale purchases in stores, online e-commerce payments, and payments at terminals.¹⁰

During the period assessed, card payments almost doubled from €3.1 billion in H1 2022 to €5.9 billion in H1 2025 (see Chart 3d). Such growth was observed across domestic



⁶ E-money institutions are entities that issue digital money stored electronically, while payment institutions facilitate transactions without holding customer deposits.

⁷ Strong differences exist when looking at the volume of transactions. Other banks represent a staggering 71% of the total number of transactions conducted, resulting in the average amount per transaction being of less than €600, while payment institutions represented just 0.2% of the overall transactions conducted, with an average value per transaction of almost €27,000. Meanwhile core domestic banks accounted for 18%, averaging €5,500 per transaction while e-money institutions represented the remaining 10% with an average value of around €2,400.

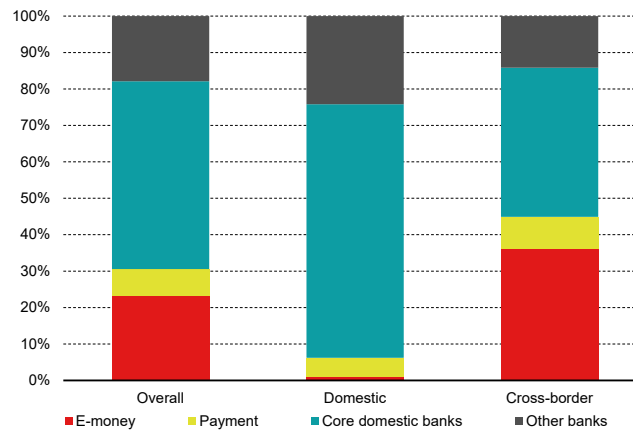
⁸ Other common methods include batch transfers and paper-based transfers.

⁹ These exclude paper-based transfers.

¹⁰ It is important to note that cash withdrawals are excluded from the data.

and cross-border transactions.¹¹ However, domestic payments accounted for just 37% of the total card payments transacted in the entire period assessed. The euro area represented half of the overall payments, with the remainder mainly in the United Kingdom. Within the euro area, a significant share of Maltese card payments was processed through Ireland, likely due to the presence of payment processing hubs for popular digital services and platforms.

Chart 3e
CARD PAYMENTS BY TYPE OF INSTITUTION
(per cent)



Participation by institutions

varied across transaction types. Core domestic banks facilitated just over half of the overall card payments, with other banks contributing 18% (see Chart 3e). E-money institutions played a notable role, accounting for just under a quarter of total value of card payments, while payment institutions made up the remaining share. When focusing on card payments conducted through domestic terminals, the dominance of the banking sector becomes more evident with 70% processed by core domestic banks and 24% by other banks. E-money and payment institutions represented only 6%.

A stark difference emerges in the average transaction value. For domestic terminal payments, e-money and payment institutions reported average values of €166 and €212, respectively, compared to €48 for core domestic banks and just €24 for other banks.¹² This suggests that bank-issued cards are used also more frequently and for smaller, everyday purchases, reinforcing their role in routine consumer activity.

Most card payments were initiated via remote channels, such as online platforms, rather than physical point-of-sale terminals, with a ratio of 6:4. This preference is particularly strong among e-money and payment institutions, where three-fourths of transactions were remote. Remote payments dominated cross-border activity, accounting for nearly 80% of such transactions. Domestic payments were more physical in nature, with only 30% conducted remotely.

The purpose of card payments varied significantly depending on whether the transaction was domestic or cross-border. For domestic payments, the most common categories were groceries and supermarkets (19%), eating out and restaurants (9%), betting¹³ (7%), government services (7%), and general merchandise (3%) (see Chart 3f). Notably, the high share of betting transactions was driven by payment institutions. In contrast, cross-border payments were more likely to involve financial institutions, largely for merchandise and services¹⁴ (21%), wire transfers and

¹¹ The terminal location reflects where the merchant's payment acceptance terminal is registered. For online payments, this is typically the payment processor or acquiring bank's location.

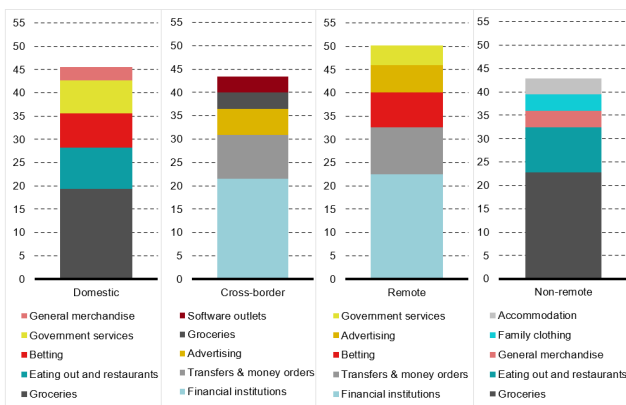
¹² The small average transaction value for other banks reflects the fact that they accounted for almost 41% of the volume of domestic transactions conducted, as opposed to around 24% of the value.

¹³ As per PS definition, betting includes lottery tickets, casino gaming chips, off-track betting and wagers at racetracks.

¹⁴ These represent transactions made with or through financial institutions other than regular bank account operations. Examples include funding prepaid cards, fees or service charges paid to financial intermediaries among others.

money orders¹⁵ (10%), advertising services (6%), groceries and supermarkets (4%), and computer software outlets (3%). As expected, differences were also observed between remote and non-remote payments. Non-remote payments were typically associated with everyday purchases such as groceries, restaurants, clothing and accommodation, while remote payments were more likely to involve financial services, betting, advertising and government services.

Chart 3f
TOP FIVE PURPOSES OF CARD PAYMENTS
(per cent)



Source: Central Bank of Malta.

Across all institutions, the most common method for card payments does not actually include the use of the physical card. Indeed, ‘other electronic channels’ accounted for almost 62% of transactions. These are followed by EFTPOS (Electronic Funds Transfer at Point of Sale) (31%) and mobile payment solutions (7%). Mobile payments have grown significantly, from 2% in H1 2022 to 11% in H1 2025, reflecting increased adoption of app-based payment tools.

Just under half of all card payments were done via an SCA. For the remainder, reasons were often unavailable. International card schemes were the dominant payment schemes, used for 98% of transaction values, with other schemes making up the remaining share.

Fraudulent card transactions during the period amounted to €8.4 million, representing just 0.03% of total card payments. While this share is low, the increasing reliance on remote and cross-border channels underscores the need for continued investment in fraud prevention and cybersecurity.

Direct debits

Direct debits differ from card payments in that they are initiated by the payee, typically a merchant or service provider, rather than the payer. Once an agreement is in place with the account holder, direct debits allow for the automatic settlement of recurring bills and obligations, such as utilities, subscriptions, or loan repayments. This offers a convenient and reliable method for regular payments, reducing the need for manual intervention.

Direct debits sent represent the amount credited to payees’ accounts. Over the period under review direct debits remained limited, increasing moderately from €251 million in H1 2022 to €306 million in H1 2025. At 88%, the bulk of these transactions were conducted through the core domestic banks, indicating a strong preference among payees for established banking institutions. Furthermore, 84% of direct debits were domestic, with the remainder largely originating from euro area countries (see Chart 3g).

Although the total value of direct debits increased only moderately, the average transaction value declined significantly from €180 in H1 2022 to €92 in H1 2025, with the number of transactions

¹⁵ This includes instances where cardholders use their card to fund or purchase money transfers, often reflects cross-border remittances. They were common among all type of institutions.

more than doubled from 1.4 million to 3.3 million during the same period. This indicates that direct debits are being used more frequently for smaller payments. This change may reflect increased consumer adoption of automated payment solutions for everyday expenses.

Regarding authorisation, most direct debits were approved via non-electronic mandates, such as signed paper agreements. However, electronic authorisation

has gained traction, rising from 29% in H1 2022 to 67% in H1 2025. This trend aligns with broader digitalisation efforts and may contribute to improved efficiency and traceability. Two-thirds of direct debits were conducted within the SEPA core scheme, with the remainder largely consisting of on-us intrabank transactions. This pattern suggests a stable and well-integrated infrastructure for recurring payments, particularly within the domestic banking sector.

Direct debits received which are payments initiated by payees and accepted by payers, also increased, from €177.3 million in H1 2022 to €217.4 million in H1 2025. Over 90% of these funds were withdrawn from the core domestic banks, while 87% of payers were in Malta. This emphasises the central role of core domestic banks in facilitating recurring payments for both consumers and businesses. No fraudulent direct debit transactions were reported during the period, underscoring the reliability and security of this payment method.

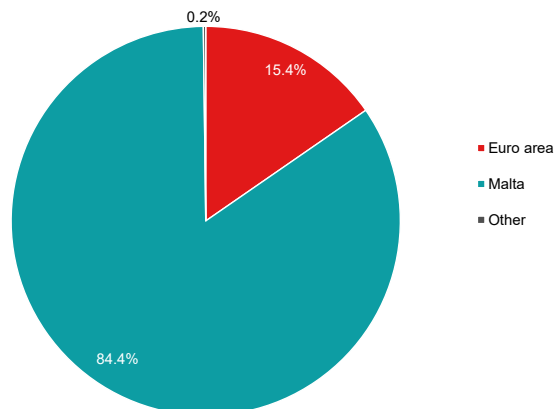
E-money

Another type of payment transactions is conducted through electronic money (e-money). This payment method differs from traditional bank deposits and payments as it represents a digital form of money issued by an authorised provider and stored electronically. This allows users to make payments or transfer funds without using cash or traditional bank accounts. Examples of this include prepaid digital wallet or stored-value account, such as online accounts to prepaid cards.

PS data captures e-money payment transactions involving e-money issued by resident payment service providers. These transactions are almost exclusively conducted via e-money institutions. While still relatively small, e-money payments grew significantly, from €6 billion in H1 2022 to almost €30 billion in H1 2025 (see Chart 3h). Similarly, the volume of transactions also rose from 11.4 million to 43.2 million over the same period, with the number of reporting e-money institutions also rising from 13 to 17. Despite this growth, e-money payments remained a fraction of the overall payment activity.

Only 13% of e-money transactions were domestic, with the vast majority conducted cross-border, primarily with other euro area countries. This indicates that e-money is currently more relevant for international transactions than for domestic consumer payments. This is further supported by the fact that the average value of e-money transactions stood at above €600, notably higher than that

Chart 3g
DIRECT DEBITS BY LOCATION
(per cent)

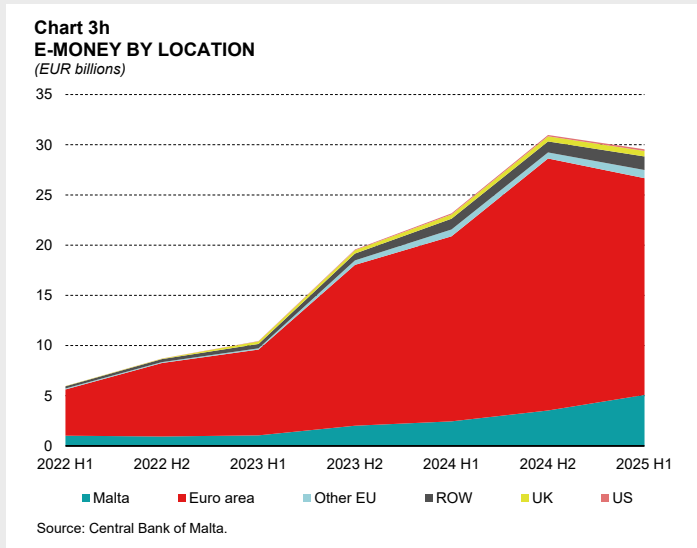


Source: Central Bank of Malta.

of card payments or direct debits.

In terms of payment method, 86% of e-money transactions were conducted from account-based platforms, while the remaining 14% involved cards with stored e-money. SCA was applied to 87% of all e-money payments, with the remainder exempt mainly due to already secure corporate payment protocols.

Fraudulent e-money transactions reported during the period amounted to €2.3 million, representing just 0.002% of total e-money payments. While this figure is low, the increasing use of e-money, especially in cross-border contexts, warrants continued monitoring and robust oversight.



Other payment services

Other less common payment services are also offered. Cheques, which are exclusively issued by banks, became less frequent, dropping from 1.1 million in H1 2022 to around 700,000 in H1 2025. This drop reflected numerous factors, including the ease of digital payments, and the drive to reduce cheques of small amounts by the introduction of the €20 minimum limit imposed by the Bank's Directive No 19.¹⁶ The value hovered at around €3.8 billion each six-month period, with a drop reported in the first half of 2025. The average value per cheque also rose from €3.3 thousand to €5.0 thousand during the period.

By contrast, money remittances have gained additional popularity doubling from €1.1 billion in H1 2022 to €2.2 billion three years later, largely conducted through e-money institutions. The average value per transaction fluctuated, but stood at around €510. Money remittance facilitates the transfer of money from one person or entity to another, without the specific need of bank accounts from either the payer or payee. Over 90% of these transfers were cross-border. These are generally conducted by individuals, especially migrant workers, to send funds to support family or for business purposes in another country. This is supported by the fact that around three-fourths of cross-border transactions are towards 'extra-EEA' countries.

Other payment services not otherwise classified are limited to an average of just €267 million every six months and largely conducted by banks.

Financial stability and concluding remarks

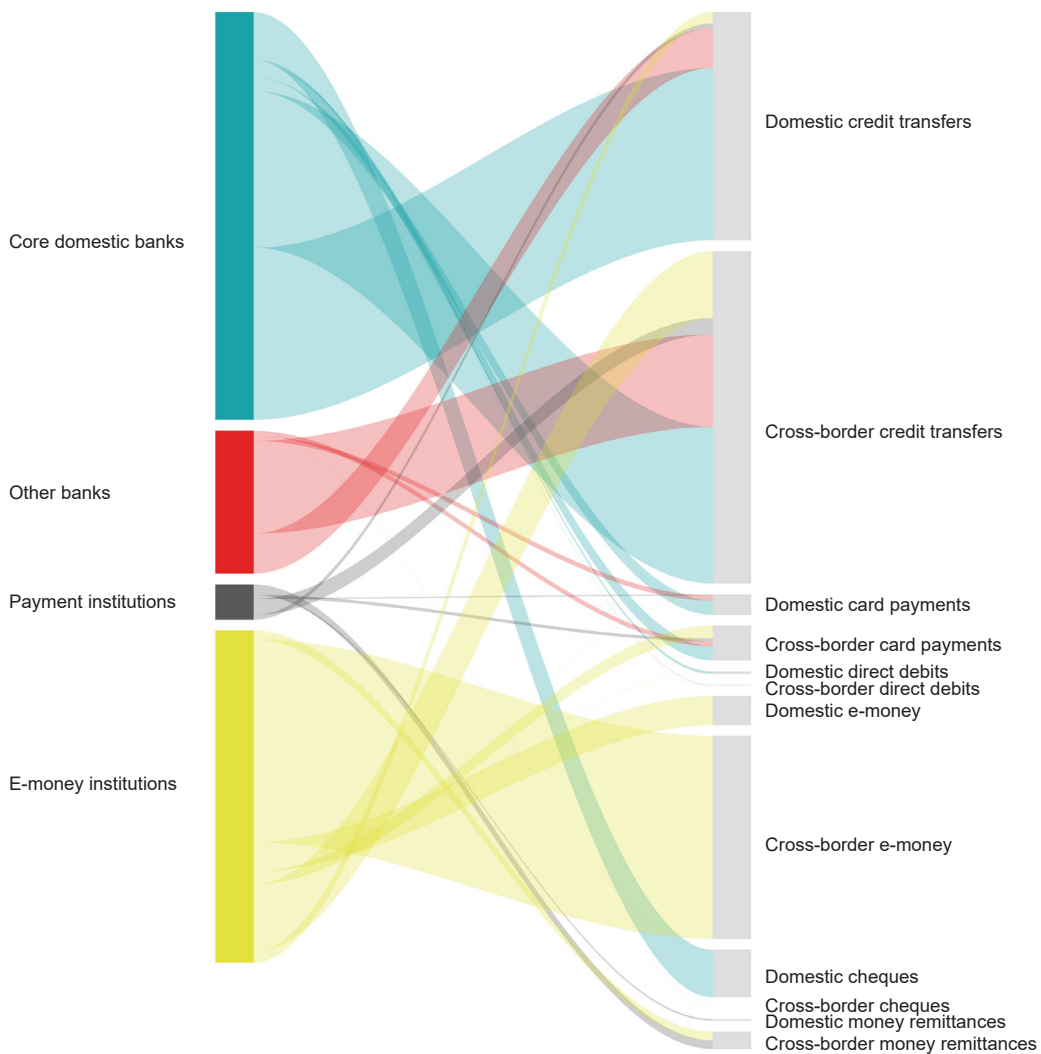
The updated PS framework highlights a Maltese payments market that is diversifying at a rapid pace. Core domestic banks continue to play a central role, especially in both domestic and cross-border credit transfers, direct debits, card payments and cheques. This highlights their centrality in traditional payment infrastructures. Other banks also play a significant role in cross-border transfers,

¹⁶ Cassar (2025) provides a longer time series analysis of developments surrounding cheques in Box 2: The Usage of Cheques within the Central Bank of Malta, *Quarterly Review* 2025:3.

though with less weight in domestic payments. Yet, the growing presence of e-money and payment institutions is shifting the balance, especially in cross-border activity. Figure 3a also shows how disruptions in any one group could have differentiated systemic implications depending on the payment instrument affected.

Credit transfers have expanded significantly, with e-money institutions capturing market share particularly in international transactions. Card payments have almost doubled, driven by online channels and non-bank providers. Direct debits remain limited and concentrated within banks, but usage is increasing, and digital mandates are becoming more common. E-money payments grew exponentially, marked by high average transaction values and a strong cross-border orientation. Money remittances are also becoming more popular, especially for third-country transactions.

Figure 3a
FLOW OF PAYMENT TRANSACTIONS



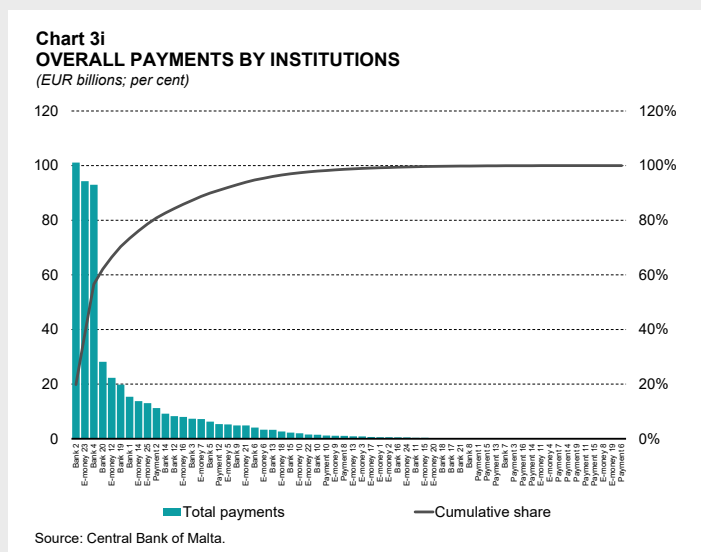
Source: Central Bank of Malta.

From a financial stability perspective, the evolving payments landscape brings both benefits and risks. A wider range of providers and channels can enhance efficiency, broaden consumer choice and spur innovation through new products and services. At the same time, this diversification increases complexity of oversight and introduced fresh challenges for risk management.

As payment services become more digital and interconnected, the risk of cyberattacks or operational failures with systemic impact increases, standing out as key concerns. Growing reliance on third-party service providers, cloud platforms, and cross-border processing hubs add additional layers of vulnerabilities, particularly around outsourcing of key processes and data handling. A cyber incident at a major payment processor or a cloud service provider could disrupt multiple institutions simultaneously, with knock-on effects for liquidity and settlement. To mitigate these risks, payment service providers need strong operational resilience frameworks, including clear contingency plans, incident response protocols, and regular stress testing. These requirements are increasingly being formalised under regulatory frameworks such as the DORA, which applies to both banks and non-bank payment service providers.

Concentration risk is another key consideration in assessing the resilience of the payments' ecosystem. The Herfindahl-Hirschman Index (HHI) suggests a moderately concentrated market at about 1,180. However, this reflects the presence of a large number of smaller entities with relatively low transaction values. Indeed, as illustrated in Chart 3i, a small number of institutions account for a significant share of transaction values. The top three entities alone handle over half of all payment transactions, with the top 10 account for around 80%. This reliance on a limited number of major providers introduces systemic vulnerabilities. An operational failure, cyber incident or disruption at a single provider could have outsized effects on the broader system. The risk is amplified by Malta's dependence on international processors, cross-border platforms, and fintech providers. For example, an outage at a major card scheme or payment processor, or a disruption in another jurisdiction, whether due to a technical failure, a legal dispute, or geopolitical tension, could have cascading effects on domestic payments, liquidity flows and consumer confidence. A further concern would be the emergence of liquidity sinkholes, that is situations where payment disruptions concentrate settlement flows in a few institutions, potentially straining their liquidity and causing systemic delays. This could amplify funding pressures and lead to payment gridlock during periods of stress. These dynamics underscore the importance of robust oversight, strong third-party risk management, and effective contingency planning, particularly for entities handling large transaction volumes. Regular monitoring of market shares and critical service dependencies to identify emerging systemic risks is also essential.

Concurrently, the rapid growth of e-money and payment institutions also highlights the importance of proportionate but comprehensive supervision. Although these players fall outside the traditional banking model, they could grow to the extent that they



become systemically important. To ensure financial stability, oversight should cover risk management, capital adequacy, and operational resilience.

Survey evidence also points to a generational divide in payment preferences. Older individuals remain more reliant on cash and less engaged with digital channels. This digital divide raises inclusion challenges, particularly if traditional payment methods were disrupted.¹⁷ While fraud levels remain low, the increasing use of remote and digital channels makes fraud prevention, dispute resolution, transparency and customer awareness important to maintain trust.

In sum, Malta's payment ecosystem is undergoing a structural transformation, bringing with it efficiency and innovation, but also new risks. Ongoing monitoring, supervisory engagement, and a continued focus on resilience will be key to ensure that payment systems support financial stability. An avenue for future research could involve assessing TARGET System data which would enable intra-institutional transaction-level flow analysis. This would provide insights not only into concentration patterns but also taking into consideration inter-dependencies.

¹⁷ This box complements recent survey-based research on payment habits in Malta, which explores consumer preferences and behavioural trends in payment usage. Savo, S. and Galea, B.L. (2025), Analysis of the Payment Habits in Malta, *Working Paper* 3/25.