BOX 3: THE IMPACT OF THE ECB'S MONETARY POLICY TIGHTENING ON DEPOSIT FLOWS AND INTEREST MARGINS

Introduction

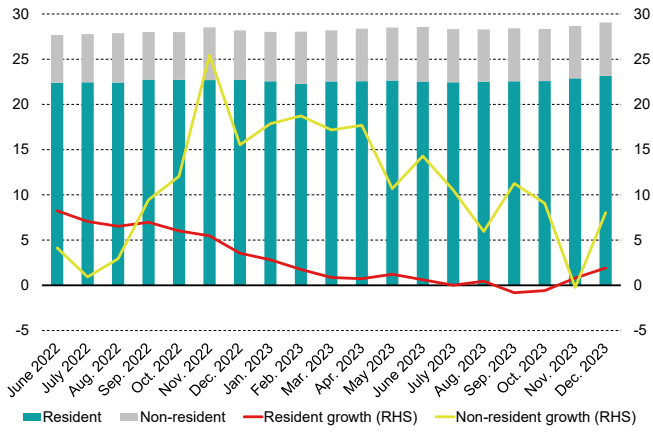
Following an eight-year period of negative rates, the ECB started to raise interest rates in mid-2022 amid concerns of high inflation. This led to an increase in overall deposit rates of euro area banks, particularly for time deposits, though these remain below historical levels, indicating a weaker pass through.[1] In Malta, this was even more limited, with only a few banks raising some of their deposit interest rates. This has resulted in some diverging trends across banks to be observed in the inflow of domestic deposits. The pass-through was even more limited on the loan book, with banks keeping their base rates unchanged. Changes were largely limited to margins on new mortgage lending, or for NFC loans linked with market rates. This box addresses two related elements. The first section looks at trends in deposit flows across two groups of banks since the most recent monetary policy tightening. This in an attempt to identify any discernible differences in their deposit interest rate strategies. Keeping unchanged the composition of these two groups of banks, the second section looks at how these groups' Loan and Deposit Betas[2] and the spreads of lending and deposit rates evolved against the ECB's Main Refinancing Rate across time and across different monetary policy cycles. The aim of the second section is therefore to enquire whether the differences in interest rate strategies between these two given groups is observable across time.

Section 1: How did interest rate changes affect deposit flows?[3]

Since June 2022, the ECB raised its key interest rates on ten occasions, with the Main Refinancing Rate reaching 4.5% in September 2023. However, this did not lead to a significant growth in overall customer deposits in the Maltese banking sector, which in the 18 months under review increased by a relatively modest 5.0% to €29.1 billion in December 2023 (see Chart 1). While this growth stemmed from both resident and non-resident deposits, it represented a slow-down compared to 2021. This slowdown could reflect a number of factors including lower economic growth and the fact that higher interest rates created better investment opportunities elsewhere, particularly in higher bond yields.

Furthermore, the overall slower increase in customer deposits masks diverging developments across different sectors and banks. This reflects their varying interest rate strategies, largely influenced by their business models, market share and liquidity. As a result, this box

Chart 1
CUSTOMER DEPOSITS BY RESIDENCY – TOTAL BANKING SECTOR
(EUR billions; per cent)



Source: Central Bank of Malta.

[1] Source: ECB: Monetary dynamics during the tightening cycle (europa.eu).

[2] Deposit/Loan Beta looks at the change in the retail deposit rate or lending rate as a share of a market rate. Refer to Section 2 for further details.

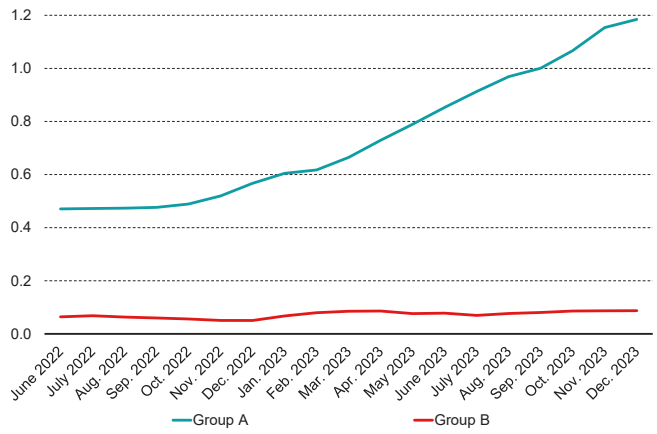
[3] Prepared by Mr Shaun Zaffarese, Analyst within Financial Stability and Surveillance Office. The author would like to thank Mr Christian Mamo, Senior Economist and Mr Andrew Spiteri, Manager within the same office, Ms Wendy Zammit, Head, Financial Stability Surveillance and Research Department and Mr Alan Cassar, Chief Officer Financial Stability and Statistics Division for their valuable suggestions.

focuses on resident customer deposits, which continued to account for the bulk of deposits in core domestic and non-core domestic banks. The analysis splits these banks into two groups, distinguishing on the basis of their response to the interest rate pass-through on deposits, with the classification highlighting shifting patterns in deposit flows between the groups, rather than distinguishing between core or non-core domestic banks.[4]

Developments in WAIR

During these 18 months, the WAIR on outstanding resident customer deposits of the core domestic and non-core domestic banks increased by 0.2 percentage point, to 0.35% in December 2023. The weighted average increase of 0.2 percentage point was used as the threshold to split banks into two groups: **Group A** includes banks which reported an increase of more than 0.2 percentage point, while **Group B** are those banks which reported an increase, if any, of less than or equal to 0.2 percentage point. Group A's WAIR stood at 1.18% in December 2023, an increase of around 0.7 percentage point from 0.47% in June 2022. In contrast, Group B's WAIR grew by just 0.02 percentage point to 0.09% (see Chart 2).

Chart 2
WAIR OF OVERALL RESIDENT DEPOSITS BY BANK GROUP
(per cent)

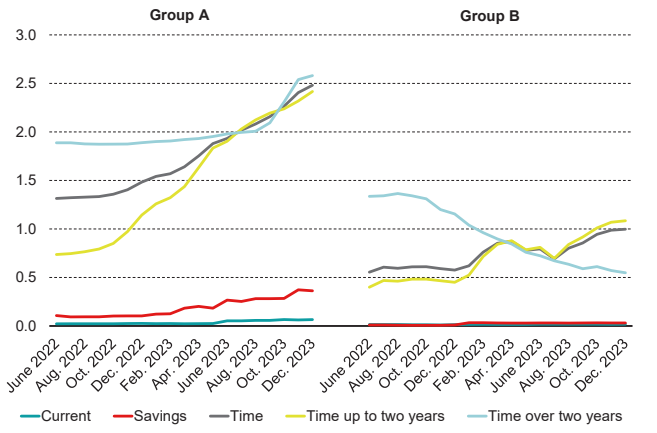


Source: Central Bank of Malta.

As evident in Chart 3, the increase in the WAIR on resident deposits mainly stemmed from time deposits for both groups. This could be observed in particular for deposits with shorter maturities, as banks may have possibly opted not to commit to higher interest rates fixed for longer maturities in line with expectations of possible monetary policy reversals in the medium term.

Group A's WAIR on resident term deposits nearly doubled from an already comparatively high 1.3% in June 2022 to 2.5% in December 2023. This was largely driven by the significant increase in interest rates on time deposits with maturities of less than two years,

Chart 3
WAIR OF RESIDENT DEPOSITS BY TYPE AND BANK GROUP
(per cent)



Source: Central Bank of Malta.

[4] International banks are excluded from this study based on their very limited holdings of just 0.5% of the overall resident deposits.

up by 1.7 percentage points to 2.4% in December 2023. Interest rates on longer time deposits for this group were slightly higher at 2.6% in December 2023, but followed a less pronounced increase of 0.7 percentage point. Current and savings deposits' WAIR increased but to a much lower extent. Meanwhile, Group B's increase of the WAIR on time deposits was more contained, up from 0.6% in June 2022 to 1.0% in December 2023. This was primarily due to a lower increase of 0.7 percentage point in the interest rates paid on time deposits with maturities of less than two years to just above 1%. In addition, the rate on longer term time deposits of Group B fell from 1.3% in June 2022 to 0.6% in December 2023, with some banks opting to focus on demand deposits, cutting the rates offered on term accounts. Current and savings deposits WAIR remained practically unchanged.

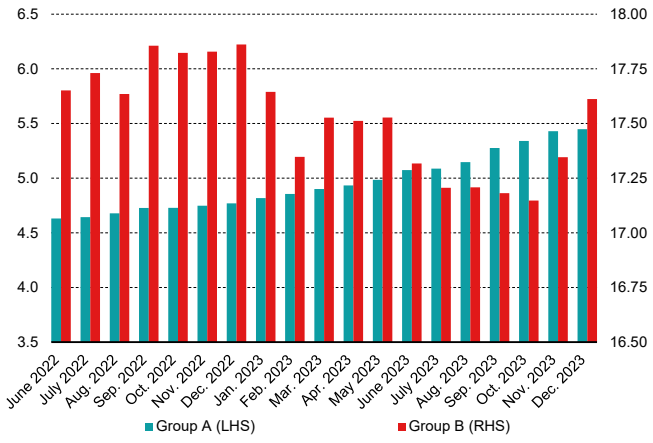
The more aggressive approach of Group A can be attributed to an array of factors. As at June 2022, Group A accounted for only a fifth of the outstanding resident customer deposits, with Group B enjoying a much bigger residual market share. Group A also held a relatively weaker, albeit still ample, liquidity position compared to Group B. In June 2022, Group A's LCR stood at 229.5% while that of Group B was almost double at 428.5%. Similarly, the resident customer loans-to-deposits ratio stood higher for Group A at 87.3% compared to 50.2% of Group B. This meant that to implement any growth strategy, Group A needed to attract more deposits through more aggressive interest rate offerings.

Developments in deposits flow

Group's A strategy in offering higher interest rates resulted in increased resident deposits, which rose by 17.6% during the period reviewed (see Chart 4). This came at the expense of Group B, which saw their overall deposits drop marginally by 0.2%. However, such minimal drop masks the noticeable drop up until October 2023 which was almost fully reversed in the last two months of the year. In line with such developments, on the back of a faster growth in their balance sheet, Group A saw their share in overall assets of the banks under scope to increase from 27.9% in June 2022 to around 30%. Despite the increase in resident deposits reported by Group A, their customer loans to deposits ratio still increased due to a faster rise in customer loans, which stood at 92.1% in December 2023. Group B also reported a higher ratio, albeit remaining well below that of Group A, at 53.8%. Group A was however able to increase their LCR by 23.4 percentage points to 252.9% in December 2023, with an almost identical drop reported by Group B to reach 404.1%.

Following the meaningful increase in WAIR of time deposits, which traditionally always offered higher remuneration, Group A's time deposits increased by almost 50% or €752.0 million to €2.3 billion, while the increase in resident current and savings deposits was much more contained, up by 2.1% or €65.5 million. Conversely, Group B's time deposits dropped by 35.8% or €611.6 million to just €1.1 billion, offset in part by an increase in resident current and savings deposits, which grew by 3.6% or €572.4

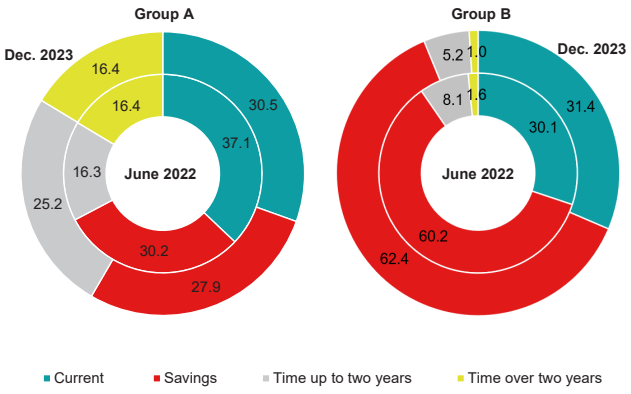
Chart 4
OUTSTANDING RESIDENT DEPOSITS BY BANK GROUP
(EUR billions)



Source: Central Bank of Malta.

million. This indicates that rather than a change in maturity strategy of resident clients, the move in deposits reflected a search-for-yield among those who traditionally invested in time deposits, moving from Group B to Group A, which focused more on terms deposits offering a higher return. In line with this, a very noticeable difference emerged in the composition of resident deposits held by these two groups of banks, with Group A's share of time deposits increasing from 32.7% in June 2022 to 41.6% in December 2023, while Group B's fell by 3.5 percentage points to just 6.2% (see Chart 5). In both cases, such developments resulted from flows into time deposits with maturities of up to two years. As a result, almost 94% of Group B's deposits were of short-term nature, in line with their funding strategy tapping into low cost, yet sticky, deposits.

Chart 5
COMPOSITION OF RESIDENT DEPOSITS BY TYPE AND BANK GROUP
(percentage share)



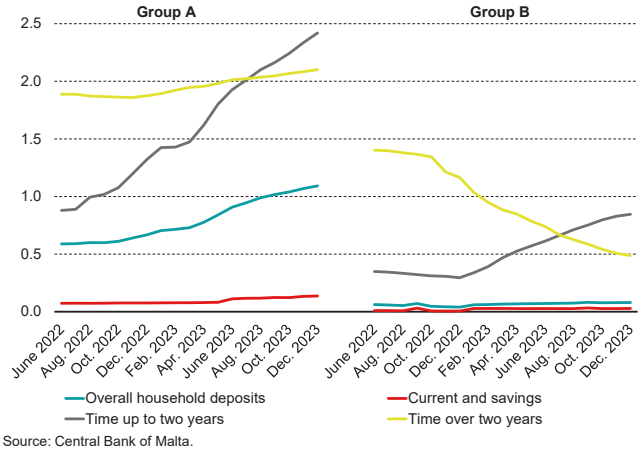
Source: Central Bank of Malta.

Sectoral deposits analysis

This section analyses the deposit flow patterns of resident households and NFCs. Aggregating both bank groups, the aggregate WAIR of resident household deposits almost doubled to 0.32%, while that for resident NFCs almost tripled to 0.19%. The still-low interest rates are influenced by the high share of deposits withdrawable on demand which offer a low interest rate when compared to term deposits.

For both sectors, the increase in WAIR was mainly driven by Group A, which reported an increase of 0.5 percentage point to 1.09% for resident household deposits, while that for NFCs' deposits the rate rose by 0.55 percentage point to 0.74% (see Charts 6 and 7). These increases were largely related to developments in time deposits, particularly those tied for up to two years. The rate paid on the latter increased by just above 1.5 percentage points for both households and NFCs, to stand at 2.4% for both sectors in December 2023. For Group B the increase in both resident households and NFCs'

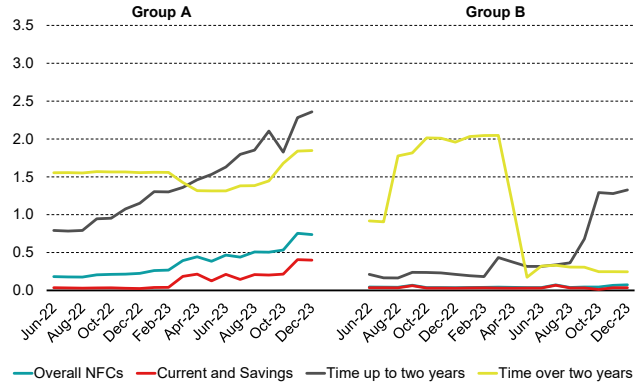
Chart 6
RESIDENT HOUSEHOLD DEPOSITS' WAIR BY MATURITY
(per cent)



Source: Central Bank of Malta.

WAIR was more contained at 0.02 and 0.03 percentage point to 0.08% and 0.07%, respectively. These increases were also driven by higher rates on time deposits with maturities of up to two years which increased by 0.5 percentage point to 0.85% for households and by 1.1 percentage points to 1.3% for NFCs.

Chart 7
RESIDENT NFC DEPOSITS' WAIR BY MATURITY
(per cent)



Source: Central Bank of Malta.
Note: Group B's NFC time deposits with a maturity of over two years represented on average only 0.2% of this group's overall NFC deposits. The drops reported in the WAIR of such deposits in April and May 2023 do not reflect system-wide developments.

Despite Group A's relatively more aggressive strategy in setting deposit interest rates, diverging trends were observed for households' and NFCs' deposits flows. Resident household deposits were more responsive to the relatively higher rates offered by Group A, as they increased by 29.0%, mostly from time deposits with a maturity of less than two years and followed by current deposits. By comparison, Group B reported a relatively much smaller 1.4% increase in household deposits. Furthermore, this increase exclusively reflected higher current deposits which are largely not remunerated, and in turn partly offset a significant drop in time deposits. On the other hand, given that NFCs tend to have long term relationships with banks, the higher WAIR was insufficient to cause a shift from Group B to Group A. In fact, NFC deposits of Group A increased by 2.7% or €15.8 million, mainly short-term deposits from construction and real estate and manufacturing sectors. Meanwhile, NFC deposits of Group B increased by 2.7% driven by higher current deposits, with inflows largely from the public administration and defence.

Conclusion

Although the ECB's tighter monetary policy stance resulted in a subdued policy pass-through in Malta, one could still observe diverging strategies adopted by the Maltese banks in response. The banks captured in Group A exhibited a more aggressive interest rate approach, leading to a substantial rise in resident deposits primarily in time deposits with shorter term to maturity. In contrast, Group B, which adopted a more conservative strategy, experienced a marginal decline in deposits, particularly in short-term time deposits. Group A's approach, while resulting in higher funding costs, allowed the banks to maintain a growth trajectory, with overall assets increasing by 10.7% during the 18 months assessed compared to the 0.3% of Group B. Meanwhile, Group B continued to operate on the back of ample liquidity, and at a limited cost, thanks to their strategic position in resident deposit holdings.

Section 2: Assessment of Deposit and Loan Betas and the spreads between Deposit and Loan Rates and the ECB MRO[5]

The limited pass-through of interest rates within the Maltese banking sector is attributed to the banks' ample liquidity and healthy capital positions.[6] Debono (2024) emphasized that Malta's transmission onto mortgage rates and lending to NFCs was noticeably weaker than in other countries in the euro area. This, in part, is due to the higher lending rates Maltese banks reported before the monetary policy tightening. However, in terms of deposit rates, the transmission was somewhat more in line with that of other euro area countries.

This section aims to assess historical changes in both the deposit rates and lending rates to households and NFCs, divided into the two groups identified in Section A. This is aimed to shed new light on the extent of how the monetary policy pass-through differed between these two groups of banks under different monetary policy regimes. This is achieved by identifying different Deposit and Loan Betas estimated as indicated below.[7] For the purpose of this Section, the retail deposit rate was based on outstanding deposits,[8] while the retail lending rate was estimated as the 12-month moving average rate on new lending.

$$Deposit\ rate/Loan\ rate\ Beta = \frac{\text{Change in retail deposit rate or lending rate}}{\text{Change in ECB Main Refinancing rate}}$$

The Beta indicates the proportion of the change in the interest rate on MROs that was passed on to the banks' clients, serving as a measure of the pass-through of monetary policy as well as the pricing power of the two groups of banks.[9] A Beta of one means that the change in the retail rate matches the change in the ECB's MRO rate. A Beta above 1 indicates that the change in the retail rate exceeded that of the MRO, while a Beta below 1 means that the change in the retail rate fell short of the change in the MRO rate. A negative Beta means that the change in the retail rate was in the opposite direction to the change in the ECB's MRO rate. The analysis also looks into the spreads between bank rates and the ECB's MRO rates.

Deposit interest rates

Data on interest rates for outstanding resident deposits by households and NFC is available from March 2007 – the period when the ECB was in the latter stages of its monetary policy tightening to combat inflation and before concerns of a Global Financial Crisis emerged. As depicted in Chart 8, both groups of banks were raising their deposit rates at the time, with Group A's interest rate on overall household and NFC deposits reached a high of 3.4%, while that of Group B peaked at a lower average rate of 3.0% in the third quarter of 2008. This increase was largely driven by time deposits. At that time, the ECB's MRO had peaked at 4.25%.

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[5] Prepared by Mr Andrew Spiteri, Manager within the Financial Stability and Surveillance Office. The author would like to thank Ms Wendy Zammit, Head of the Financial Stability Surveillance and Research Department, and Mr Alan Cassar, Chief Officer of the Financial Stability and Statistics Division, for their valuable suggestions.

[6] See Debono, N. (2024). The transmission of monetary policy in Malta: A focus on retail bank interest rates, Central Bank of Malta.

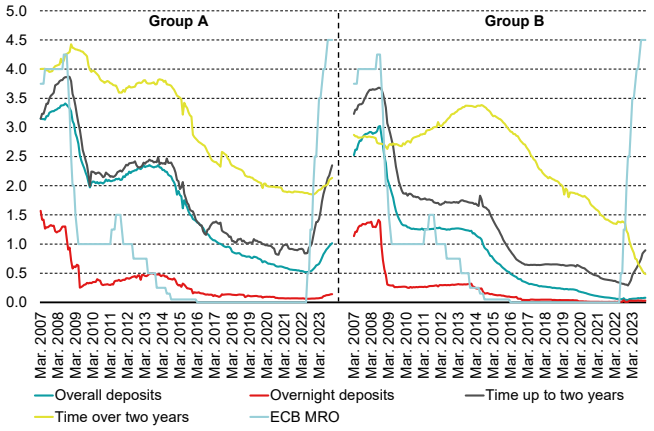
[7] See IMF (2024) Interest Pass-Through in Malta, IMF Country Report No. 24/34.

[8] Outstanding deposits are taken into consideration, rather than new deposits, because information on new overnight deposits, which represent 77.5% of overall resident household and NFC deposits, is not available due to the characteristics of such deposits. Consequently, it is not possible to obtain an accurate weighted average of rates granted on new deposits.

[9] The ECB MRO serves as a benchmark for the monetary policy rate. It was adopted for both the Loan and Deposit Betas. Following the ECB's Operational Review, the ECB is now focusing on the Deposit Facility Rate (DFR) to steer monetary policy reflecting the excess liquidity in the system. However, for consistency purposes, the analysis continued to be estimated on the MRO. Deposit Betas would largely remain the same should the DFR be used.

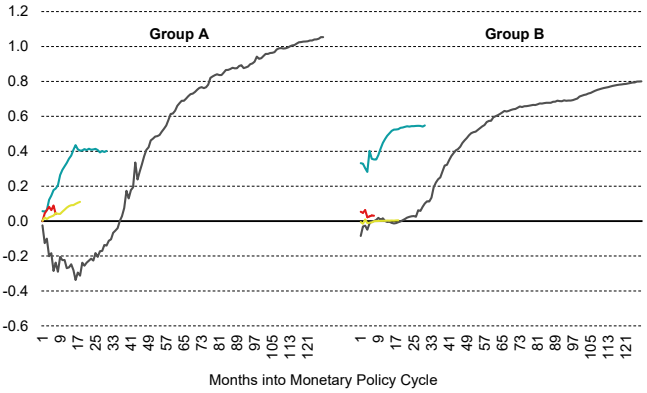
Between October 2008 and June 2022, the ECB embarked on an easing and accommodative monetary policy stance, interrupted only by a brief marginal tightening in 2011. Domestic banks within both groups cut their deposit interest rates noticeably until the 2011 tightening, particularly Group B, which cut rates by 1.8 percentage points, while Group A reduced rates by 1.3 percentage points. As the ECB cut its MRO rate by 3.25 percentage points during the period, the passthrough was not complete, with the Deposit Beta for Group B larger than that for Group A, standing at 0.55 and 0.40, respectively in March 2011 (see Chart 9). For both groups, the developments were driven largely by time deposits with maturity of up to two years.

Chart 8
RESIDENT OUTSTANDING DEPOSIT INTEREST RATES
(per cent)



Source: Central Bank of Malta.

Chart 9
CUMULATIVE DEPOSIT BETAS



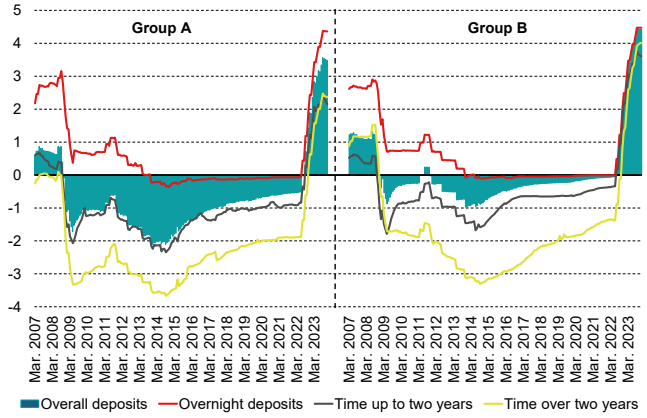
Sources: Central Bank of Malta; authors' calculations.

During the brief tightening in 2011, where the ECB's MRO rate was increased by 0.5 percentage point to 1.5%, domestic banks did not react much, with only Group A raising marginally interest rates. However, as the ECB embarked on a path of monetary easing to address economic challenges during and after the euro area debt crisis, Group A continued to raise its deposit rates, resulting in a negative Deposit Beta to be reported. Group B did not raise its rates but was also hesitant to follow the ECB in its rate cuts, resulting in a Beta close to 0. The ECB continued with its easing stance, cutting the MRO rate by a total of 1.5 percentage points to 0% in March 2016, establishing the low-for-long interest rate environment and with domestic banks cutting their deposit rates. Group A reported an overall deposit Beta of 1.05 during this period, resulting in an overall interest rate of 0.5% as of June 2022. Meanwhile, the Deposit Beta of Group B was more contained at 0.80, which however saw the overall interest rate to drop to less than 0.1%. The developments were driven by term deposits of up to and over two years within both groups.

In 2022, inflation in the euro area soared to a double-digit level. This was triggered by a combination of factors, including higher energy and food prices and supply chain disruptions, all somewhat linked

to the war in Ukraine. These coincided with a surge in demand following the pandemic. As a result, the ECB initiated a significant tightening phase at an unprecedented pace, with the MRO reaching 4.5% by the third quarter of 2023. However, the pass-through effect this time was very limited. By the end of 2023, Group B's overall resident deposit rate had risen only marginally to 0.8%, largely driven by time deposits with maturity of up to two years, with the group's overall Deposit Beta standing at 0 by end 2023. On the other hand, Group A demonstrated a much more responsive approach. Its interest rates on resident deposits almost doubled to 1.0%, although the Deposit Beta remained limited to just 0.11. This increase was driven by time deposits, especially those with a term of up to two years, with interest rates almost reaching the levels seen around 2013-2014.

Chart 10
SPREAD OF RESIDENT OUTSTANDING DEPOSIT INTEREST RATES VS ECB MRO RATES
(percentage points)



Sources: Central Bank of Malta; ECB.

In addition to Deposit Betas, the monetary policy passthrough was also assessed by seeing how the banks' deposit rates moved in relation to the ECB's MRO rate. Chart 10 offers a visual representation of this by measuring the spread between the two rates, specifically by subtracting the banks' deposit rates from the ECB's MRO. A positive spread means that the MRO is higher than the bank's average deposit rate, and vice versa. In the latter stages of the monetary policy tightening during 2007-2008, despite the increase in the banks' deposit interest rates, these still fell short of the MRO rates, resulting in a positive spread. However, as the ECB proceeded to soften its policy stance, the rates granted by domestic banks remained above the MRO rate, particularly evident in the case of Group A, with negative spreads reported as a result. The spread did however narrow, as banks continued to decrease their deposit rates. As the monetary policy tightening from July 2022 was not matched by banks, given the limited pass-through, the spread turned positive again, significantly exceeding the previous positive spread. This trend is evident in both groups, but more predominantly so for Group B.

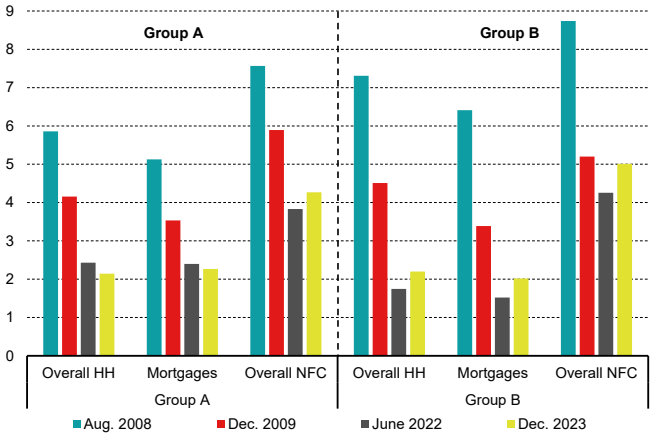
Interest rates on loans

To achieve a better understanding of the underlying trends in the transmission of monetary policy rates through the credit channel, new loans were considered. The 12-month moving average rate was used to reduce excessive volatility. The series of consistent data available starts from August 2008, just before the onset of monetary policy easing.

The initial easing, which occurred in 2008-2009, elicited a robust response by domestic banks as indicated in Chart 11. Indeed, by end 2009, domestic banks reported significant cuts in lending rates for new resident loans across both households and NFCs. Group B experienced particularly pronounced reductions, with Loan Betas for households and NFCs standing at 0.86 and 1.09, respectively. Meanwhile, Group A's Loan Betas were somewhat lower, at 0.52 for households and 0.51 for NFCs. However, this primarily reflected Group A's lower initial lending rates, as rates for both

groups, especially households, converged over time. This downward trend continued largely unabated in subsequent years. By June 2022, before the most recent monetary policy tightening, both groups had largely transmitted the overall drops in the MRO rate. For Group A, the Betas rose to 0.81 for households and 0.88 for NFCs, while for Group B, these figures increased to 1.31 and 1.05, respectively.[10]

Chart 11
RESIDENT OUTSTANDING LENDING INTEREST RATES
(per cent)

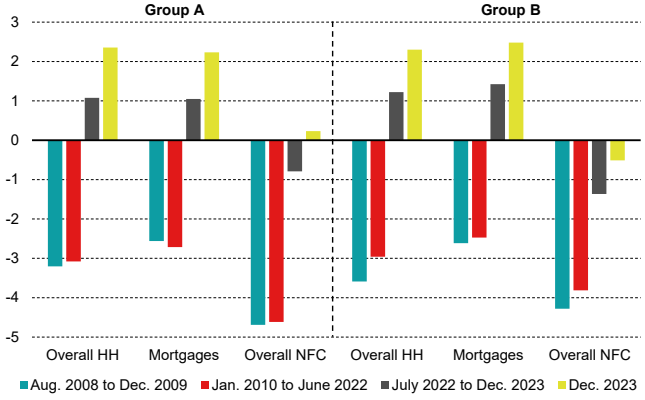


Source: Central Bank of Malta.

By the end of 2023, the ECB tightened its monetary policy, but this adjustment was only marginally transmitted on to the bank's customers. For Group B, lending rates for overall resident households increased by approximately a 0.5 percentage point to a still moderate 2.2%, resulting in a Loan Beta of just 0.10. This increase largely reflected the reversal of the temporary reductions previously observed in the fixed interest rates portion of new mortgage lending. NFCs' average interest rate rose by around 0.8 percentage point to 5.0%, with a Loan Beta of 0.17. The pass-through was even more limited for Group A, where the NFC lending rate rose by around 0.4 percentage point to 4.3%, resulting in a Loan Beta of just 0.10, while household lending rates dropped further by a 0.3 percentage point to 2.1%, resulting in a Beta of -0.06. Despite the increase in NFC lending rates among both groups, evidence indicates that this was driven by loans linked to market rates, with the overall lending rates by no means close to those charged in 2008. Meanwhile, lending rates for households remained close to the historically-low levels.

Like deposits, Chart 12 offers a visual representation of how banks' lending rates moved alongside the ECB's MRO rate by measuring the spread between the two. Here too, the spread is estimated by subtracting the banks' lending rates from the ECB MRO, with a positive spread meaning that the MRO is higher and vice versa. Throughout most of the period assessed, the

Chart 12
SPREAD OF RESIDENT LENDING INTEREST RATES VS ECB MRO RATES
(percentage points)



Source: Central Bank of Malta.
Note: The spread refers to the average for the period assessed or the position as at December 2023.

[10] The high household loan Beta for Group B reflects the temporary reductions observed in the fixed interest rate portion of new mortgage lending during the initial phase of the loan. These rates subsequently rose again, which would result in a lower Beta.

average lending rates charged by banks were higher than the ECB's MRO rate. This trend was consistent for both groups of banks, as far back as 2008, when similarly high MRO rates were reported just before the interest rate cuts took place. However, the situation changed dramatically with the latest monetary policy tightening. By the end of 2022, the spread for household lending rates turned positive for both groups, while that for NFCs also turned positive for Group A as of August 2023. The spread remained negative for Group B, but it was at a much narrower corridor compared to 2008.

Key observations

The very limited pass-through of the latest ECB's monetary policy tightening on banks' deposit rates was evident, with small Deposit Betas observed. This indicates the presence of ample liquidity, primarily fuelled by customer deposits, as amply documented in the Bank's *Financial Stability Reports* throughout the years. Consequently, banks did not feel compelled to raise their deposit rates. Despite this generic observation, discernible difference between different groups of banks could be observed, with Group A displaying a higher Beta, reflecting this Group's incentive to gain more funding and in so doing increasing its market share. Furthermore, this Section finds that this response from Group A is not a recent phenomenon. Historically, Group A tended to be more conservative in deposit rate cuts and more aggressive in rate hikes, while the larger share of resident deposits held by Group B allowed them to reduce their deposit rates further.

A second important observation is that banks largely chose not to pass on the most recent monetary policy tightening on their borrowers, with lending rates largely converging in both groups. Such levels are much lower than those reported during similar MRO levels that prevailed during 2007 and 2008. Indeed, the only noticeable increase was observed in NFC lending, which evidence suggests this is driven by loans linked to international benchmark rates. Household lending rates, primarily reflecting loans for house purchases, did not experience significant increases during the latest monetary policy tightening. This was so to the extent that the rate at which banks charge for new household loans, and for Group A also new NFC loans, is lower than the ECB's MRO rate.

To sum up, taking the two groups as determined on the basis of the preset criteria, a sustained relative difference, largely in the pricing of deposits, can be observed. This can be attributable to higher market shares and higher liquidity buffers in Group B, with Group A offering higher rates as a result. In the most recent monetary policy tightening, the limited pass-through observed for both deposits and loans, resulted in households and NFCs benefiting from more stable lending rates. This stability contributed to maintaining strong repayment capabilities, as evidenced by the continued improvement in the overall resident NPL ratio, which fell further in 2023 to 2.1%. While this limited pass-through on deposits may have resulted in limited earnings for banks' clients, alternative investment opportunities, both outside and within Group A, were available at higher remuneration rates.