

## BOX 4: THE TRANSMISSION OF MONETARY POLICY IN MALTA: A FOCUS ON RETAIL BANK INTEREST RATES<sup>1</sup>

The setting of policy interest rates is typically the conventional tool for central banks to achieve their monetary policy objectives. Following a number of years characterised by a low-interest rate environment, the ECB embarked on a cycle of tightening monetary policy as of July 2022. In the following months, interest rates were consistently raised in response to high inflation in the euro area (EA), largely resulting from fast-accelerating demand, supply shortages, and higher energy prices. This period of rapidly tightening monetary policy continued until May 2024, by which time the DFR had increased from the -0.50% rate applicable until 26 July 2022 to 4.00% until 11 June 2024.

The effectiveness of policy rate changes to achieve monetary policy objectives depends on the ability to affect money market rates, commercial banks' refinancing costs and retail bank rates (Lane, 2022).<sup>2</sup> For instance, a hike in interest rates by the ECB increases the borrowing costs for commercial banks. If this additional cost is passed on in the form of higher lending and deposit rates charged to customers, customer borrowing becomes more expensive and savings more attractive. In turn, these developments affect the consumption and investment decisions of households and firms, and consequently aggregate activity and prices (Altavilla et al., 2020).<sup>3</sup> As such, the effectiveness of policy rate changes depends on the extent to which monetary policy decisions trickle down to households and firms.

In this light, this study analyses the extent to which lending rates and deposit rates charged by Maltese banks have changed in response to the recent cycle of tightening monetary policy implemented by the ECB. Moreover, this study also begins to shed light on the potential sources of heterogeneity between the extent of this transmission in Malta and that observed in the EA.<sup>4</sup>

### Developments in retail lending and deposit rates in Malta

Chart 1 illustrates the evolution of two key lending rates in Malta between January 2008 and May 2024 – the month before which policy rates were cut by 25 basis points by the ECB Governing Council. The rates considered are those charged on (1) lending to households for house purchases (measured by the *annual percentage rate of charge [APRC]*), and (2) lending to non-financial corporations (NFCs).<sup>5</sup> Mortgage rates have generally been lower and less volatile than rates charged on NFCs' lending. In addition, while both rates have,

<sup>1</sup> Prepared by Nathaniel Debono, a Senior Research Economist within the Modelling Office. Helpful comments by Mr Alexander Demarco, Dr Aaron G. Grech, Mr Noel Rapa and Mr Owen Grech are gratefully acknowledged. The views expressed are those of the author and do not necessarily reflect those of the Central Bank of Malta. Any errors are the author's own.

<sup>2</sup> Lane, P. R. (2022). "[Monetary policy and the money market](#)", Speech at Meeting of the Money Market Contact Group.

<sup>3</sup> Altavilla, C., Canova, F. and Ciccarelli, M. (2020). "Mending the broken link: Heterogeneous bank lending rates and monetary policy pass-through", *Journal of Monetary Economics*, 110, pp. 81-98.

<sup>4</sup> This study can be considered an update to the work conducted in Debono, N. (2024). "The transmission of monetary policy in Malta: a focus on retail bank interest rates", Central Bank of Malta *Policy Note*. This article extends the analyses until May 2024 (i.e. the month before the key ECB interest rates were lowered), compared to the August 2023 cut-off date considered in the *Policy Note*.

<sup>5</sup> The respective retail interest rates charged by MFIs in Malta are the MFI interest rate statistics (MIR) on new business volumes with residents of the euro area.

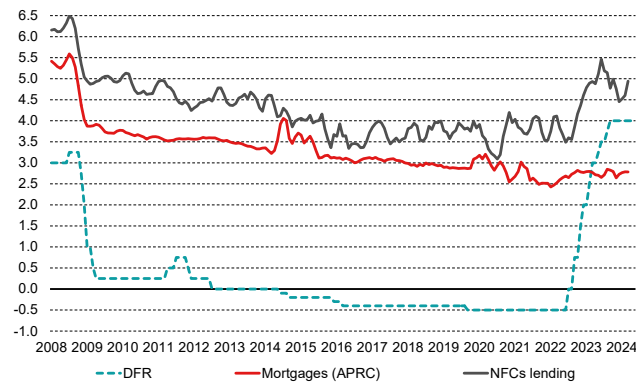
in large part, followed a downward trend, rates applied to NFCs' lending somewhat stabilised as of 2016 and picked up from the second half of 2022.

These developments begin to shed light on the transmission of monetary policy to lending rates in Malta. In an indication of weak pass-through during a time characterised by expansionary monetary policy,

the spread between the DFR and the respective lending rates widened by 60 basis points for mortgages and 106 basis points for NFCs' lending between January 2008 and December 2021. The tightening of monetary policy experienced from July 2022 onwards did not really affect the mortgage rates set by commercial banks in Malta. In fact, mortgage rates rose by just 27 basis points in response to a 450 basis point hike in the DFR between December 2021 and May 2024. The change in NFCs' lending rates has been slightly more pronounced at 122 basis points, but this is still markedly less than the hike in the policy rate during the same period.<sup>6</sup>

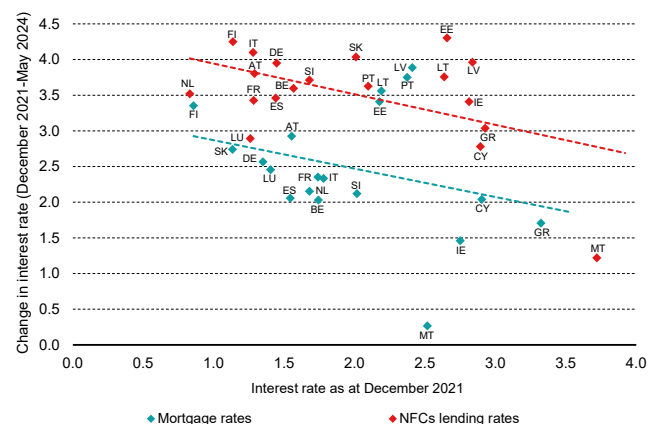
Chart 2 plots the cumulative change in mortgage rates and NFCs' lending rates between December 2021 and May 2024 in the EA, vis-à-vis the respective interest rates charged as at December 2021. In December 2021, average mortgage rates in Malta stood at 2.52%, among the highest in the EA, where mortgage rates averaged 1.60%. However, cross-country divergences in the reaction of mortgage rates to the subsequent cycle of tightening monetary policy, led to Malta having the lowest

**Chart 1**  
**RETAIL LENDING RATES IN MALTA**  
(% per annum; three-month moving average of new business volumes)



Source: Central Bank of Malta.  
Notes: All retail bank lending rates refer to MFIs' interest rates on new business volumes with euro area residents. Mortgage rates reflect the annual percentage rate of charge (APRC), covering the total cost of a loan, comprising the interest rate component and other related charges.

**Chart 2**  
**CHANGES IN MORTGAGE RATES AND NFCs LENDING RATES**  
(percentage points; % per annum (three-month moving average of new business volumes))



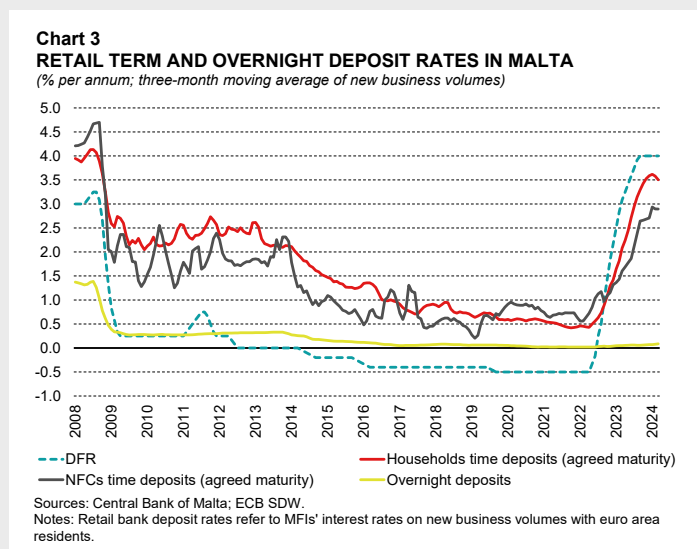
Sources: ECB SDW; author's calculations.

<sup>6</sup> The respective changes in mortgage rates and the lending rates charged to NFCs are estimated on the basis of interest rates calculated on a three-month moving average basis.

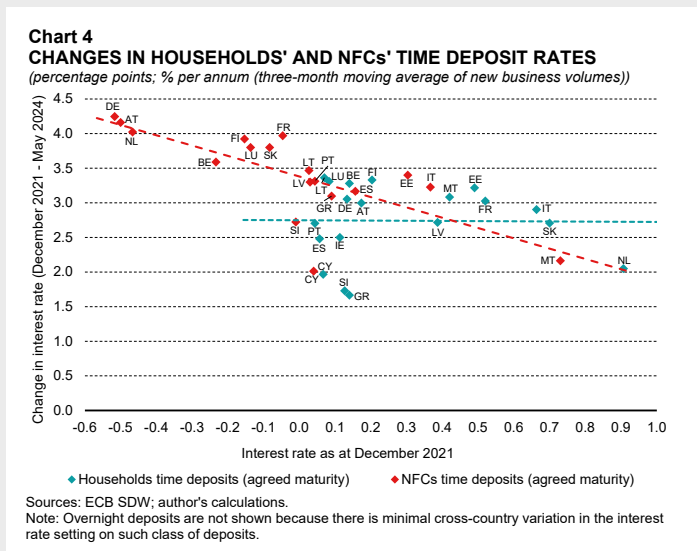
mortgage rates as of May 2024, standing at 2.78%. Similar to the patterns observed in the case of mortgage rates, the reaction of rates charged to NFCs by Maltese banks in the recent tightening cycle was also much less pronounced than in other EA countries. Indeed, while such rates rose by an average of 3.75 percentage points in the EA, the corresponding increase in Malta was limited to 1.22 percentage points. As a result, NFCs' lending rates in Malta were among the lowest in the EA by May 2024. This represents a marked shift from the position at the end of 2021, when rates charged by Maltese banks were the highest among all EA countries.

Assessing the cumulative changes in bank lending rates relative to the initial interest rate levels, Chart 2 exhibits a negative relationship, with countries that had relatively high retail bank interest rates in December 2021 generally recording smaller subsequent hikes in their lending rates. However, even when accounting for initial lending rate levels, the subsequent rise in lending rates in Malta remains exceptionally low. Particularly in the case of mortgages, the increase in rates charged in Malta even lagged behind other EA countries that started off with even higher lending rates. These patterns suggest that although the initial levels of lending rates are important, there are likely other considerations which might also explain the relative stability in the lending rates charged by Maltese banks.

Turning to developments in deposit rates, Chart 3 shows the evolution of the interest rates offered by Maltese banks on time deposits and overnight deposits. Notwithstanding some volatility in the NFCs' time deposits, time deposit rates have generally followed movements in the policy rate set by the ECB. Among the main developments in recent years, the rate offered on new households' time deposits in Malta increased from 0.42% in December 2021 to 3.50% in May 2024. The increase in NFCs' time deposit rates was slightly more muted, increasing from 0.73% to 2.89% over the same period. Rates offered on overnight deposits remained practically unchanged during the latest cycle of monetary policy tightening. Indeed, the rate on such deposits, which are overwhelmingly the largest class held by Maltese banks, moved only marginally from the 0.02% rate applied in December 2021, and were remunerated at less than 0.1% by May 2024.



Analysing the movements in term deposits in the EA, Chart 4 shows that changes in the rates offered on households' time deposits between December 2021 and May 2024 have been largely unrelated to the corresponding rates offered before the start of the tightening period of monetary policy. In contrast, countries that offered relatively high rates on NFCs' time deposits in December 2021 generally had a smaller subsequent increase in this rate in response to policy rate hikes.



allly had a smaller subsequent increase in this rate in response to policy rate hikes. The analysis elicited from Chart 4 indicates that recent developments in the time deposit rates offered by Maltese banks have been in line with the rest of the EA, when accounting for the level of interest rates set by banks prior to the recent policy rate hikes.

### Monetary policy pass-through estimates for Malta

The descriptive evidence discussed above highlights the limited pass-through onto bank lending rates, especially mortgage rates, in Malta during the recent tightening of monetary policy. In contrast, movements in local time deposit rates have been somewhat stronger, while demand deposit rates have persisted at the very low levels observed over previous years. The relatively small movements in the overnight deposit rates offered by Maltese banks since 2022 are in line with those observed in many other EA countries. The following analysis seeks to formalise this evidence through an empirical estimation of pass-through rates in Malta, and an assessment of how these compare to those observed in the EA bloc.

The baseline specification used is adapted from the work of Holton and Rodriguez d'Acri (2018), taking the following general form:<sup>7</sup>

$$\Delta ir_t = \sum_{j=1}^n \alpha_j \Delta ir_{t-j} + \sum_{j=0}^n \beta_j \Delta mr_{t-j} + \theta ir_{t-1} + \delta mr_{t-1} + \sum_{j=0}^n \gamma_j \Delta X_{t-j} + \epsilon_t \quad (1)$$

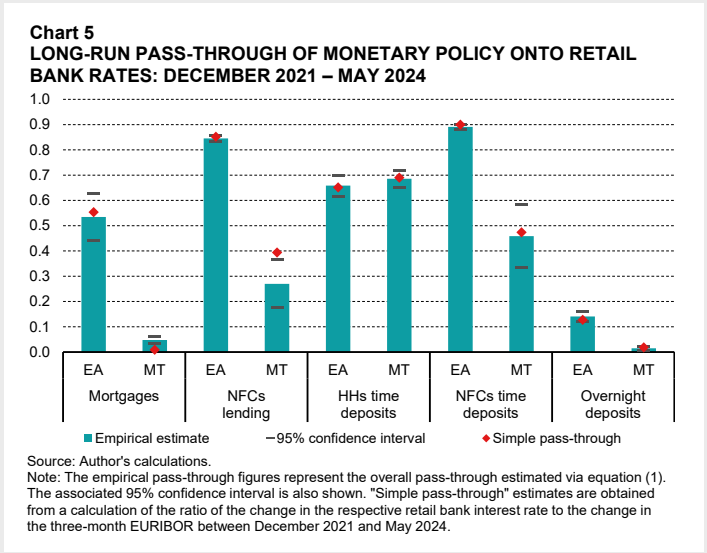
and is estimated separately on monthly interest rate data for Malta and the EA between December 2021 and May 2024. Under this framework, monthly changes in lending and deposit rates ( $\Delta ir_t$ ) depend on their respective lagged changes ( $\Delta ir_{t-j}$ ), contemporaneous and past changes in the monetary policy stance, captured by the three-month EURIBOR ( $\Delta mr_{t-j}$ ), and deviations from the long-run relationship between retail rates ( $ir_{t-1}$ ) and the

<sup>7</sup> Holton, S. and Rodriguez d'Acri, C. (2018). "Interest rate pass-through since the euro area crisis", *Journal of Banking and Finance*, 96 (2018), pp. 277-291.

three-month EURIBOR in the previous period ( $mr_{t-1}$ ). The vector  $X$  captures important macroeconomic variables that may independently also influence the setting of lending and deposit rates by banks, namely a country's HICP inflation rate, unemployment rate and ten-year government bond yield.<sup>8</sup>

This work focuses on the overall pass-through of monetary policy in Malta and the EA. The overall pass-through can be straightforwardly estimated from the specification in equation (1) through the calculation of  $-\frac{\delta}{\theta}$ , where a value of 1 reflects a full and complete pass-through of changes in monetary policy onto retail bank rates. This exercise is applied to two lending rates, namely those on *mortgages* and *NFCs' lending*, and three deposit rates, namely those in relation to *households' time deposits*, *NFCs' time deposits* and *overnight deposits*. The estimated long-run pass-through estimates are presented in Chart 5. The robustness of the pass-through estimates is assessed by computing the ratio of the change in the respective bank rate to the change in the three-month EURIBOR between December 2021 and May 2024.

Results presented in Chart 5 confirm that the transmission of the restrictionary policy in Malta has been markedly low in the case of mortgage rates. Estimated at 0.05 between December 2021 and May 2024, this reflects the decision of Maltese banks to maintain mortgage rates at very stable levels despite progressive hikes in the policy rates set by the ECB. The extent of transmission in Malta is much weaker than that observed across the EA, which stood at 0.53 over the same period. Moreover, the 'simple pass-through' estimates show the pass-through onto mortgage rates in Malta to be the weakest among all countries in the EA. The overall pass-through onto lending rates charged to NFCs in Malta has been slightly stronger than that onto mortgage rates, estimated at just below 0.30.<sup>9</sup> Nonetheless, this still lagged well behind other EA countries, where the pass-through over the same time horizon typically exceeded 0.70 and averaged 0.85. These cross-country divergences are congruent to the descriptive statistics shown previously and are in part driven by the initial lending rate conditions. As already illustrated, lending rates in Malta were relatively high up to December 2021. Then,



<sup>8</sup> When estimating the model in equation (1), standard errors are adjusted for heteroscedasticity, autocorrelation, and cross-sectional correlation.

<sup>9</sup> While the point estimate is subject to some uncertainty, the "simple" calculation of the pass-through yields a value of around 0.40, which is still around half of that recorded in the EA.

as monetary policy started tightening, lending rates charged by Maltese banks were moving from higher initial levels than their EA counterparts. As a result, hikes in lending rates by Maltese banks in response to rising policy rates were always likely to be less pronounced than other EA countries. Nonetheless, the initial interest rate levels charged by Maltese banks do not fully explain the difference in the pass-through of Maltese banks compared to that in the EA.

Turning to the transmission of monetary policy onto deposit rates, Chart 5 also shows that the pass-through onto households' term deposit rates has been highly comparable (in the range of 0.65-0.70) to that in other EA countries over the recent tightening cycle. In contrast, the pass-through onto the rates offered to NFCs on their time deposits between December 2021 and May 2024 has been relatively low, when compared to the rest of the EA. Indeed, while the pass-through onto NFCs' time deposit rates in Malta hovered around 0.50, the average in the EA approached 0.90. The pass-through onto overnight deposit rates has been largely limited in the EA, just exceeding 0.10 on average, while in Malta, this pass-through is recorded at 0.01. These results reflect the developments in deposit rates offered by Maltese banks, as illustrated in Chart 3. Indeed, the somewhat pronounced movements in time deposit rates over the recent tightening cycle, compared to overnight deposit rates, are reflected in a stronger pass-through estimate for time deposit rates, relative to that on demand deposit rates.

Overall, these empirical results reaffirm the descriptive evidence of Malta being a clear outlier in the EA in terms of the pass-through of tightening monetary policy onto its retail bank lending rates. In contrast, the pass-through onto deposit rates, especially households' time deposits, has been much more in line with other EA countries, although changes in the rates offered on demand deposits and NFCs' time deposits have been comparatively quite low.

### **Maltese banks' characteristics and their potential role in explaining the low pass-through onto lending rates**

Previous economic research has shown that the extent of monetary policy transmission onto retail bank lending rates depends to some extent on particular characteristics of the banking sector and individual commercial banks. In this light, this section analyses the main features of the Maltese banking sector in order to better understand whether these features could explain, at least in part, the low pass-through of monetary policy onto bank lending rates in Malta over recent months.

The Maltese banking sector is characterised by relatively high liquidity, enhancing banks' ability to insulate their lending behaviour from monetary policy changes. In an indication of the excess liquidity enjoyed by Maltese banks, the share of funds held with the Central Bank of Malta to satisfy minimum reserve requirements as of May 2024 stood at just 6.6% of all amounts deposited with the Bank. Maltese banks also perform well in terms of regulatory liquidity indicators, such as the Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR). As shown in Chart 6, the levels recorded by core Maltese banks in recent years have comfortably exceeded the current 100.0% minimum requirement set for both

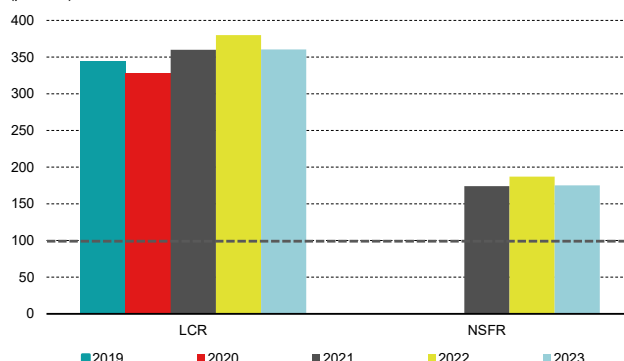


ratios. Compared to other EA countries, Maltese core banks had the third highest LCR and the fourth highest NSFR in the EA in 2023.<sup>10</sup>

Maltese banks have also continued to benefit from a large inflow of customer deposits in recent years (see Chart 7). In fact, total resident deposits with credit institutions in Malta grew at an average annual rate of 6.6% between the start of 2015 and May 2024. This increase has largely been driven by the rapid rise in overnight deposits, which grew by 130% over the same period. As a result, overnight deposits now constitute 84% of Maltese banks' total resident deposits and, in light of the very low interest rates offered on overnight deposits, they represent a source of very cheap liquidity for Maltese banks. The strong accumulation of customer deposits also allows Maltese banks to comfortably support their loan commitments, with the loans-to-deposits ratio of core Maltese banks averaging less than 60% in 2023, well below the 94% figure recorded in the EA.<sup>11</sup>

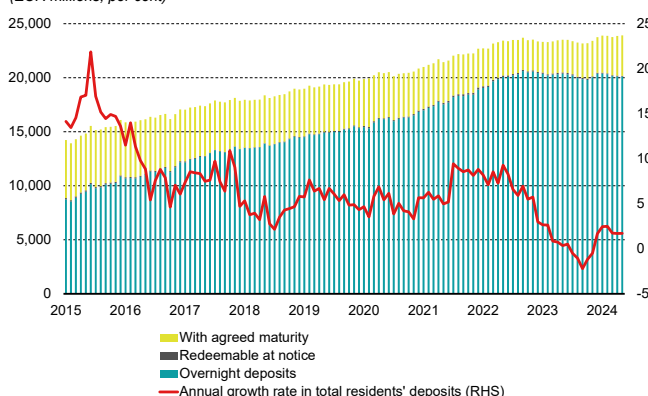
Overall, the low pass-through onto lending rates charged by Maltese banks in recent months could potentially also be explained by signs of their healthy balance sheet positions. In theory, healthy balance sheets should afford banks the opportunity to limit the extent of lending rate hikes. Among the main indicators of the healthy balance sheets in the domestic banking sector, Maltese banks consistently record strong capital positions,

**Chart 6**  
**LIQUIDITY INDICATORS OF MALTESE BANKS**  
(per cent)



Source: Central Bank of Malta *Financial Stability Report 2023*.  
Notes: Figures cover the respective ratios among core Maltese banks. Credit institutions must maintain a LCR and NSFR of at least 100%. The NSFR became mandatory in the EU in the second half of 2021 and therefore data for previous years is not available.

**Chart 7**  
**RESIDENTS' DEPOSITS HELD WITH MFIs IN MALTA**  
(EUR millions; per cent)



Source: Central Bank of Malta.  
Notes: Deposits by EA residents are not shown due to their volatility and their relatively small size compared to the deposits of Maltese residents.

<sup>10</sup> Figures for other EA countries are based on ECB SDW data [Consolidated Banking Data] on domestic banking groups and stand-alone banks.

<sup>11</sup> Figures for core Maltese banks are derived from Central Bank of Malta (2024), "Sixteenth *Financial Stability Report 2023*". See also footnote 10.

with data published by the Central Bank of Malta showing that the Tier 1 capital ratio of Maltese core banks stood at 21.0% at the end of 2023, higher than the 17.0% average in the EA.<sup>12,13</sup> Core Maltese banks are also not overly exposed to non-performing loans (NPLs). Indeed, their total NPLs expressed as a share of their total gross loans stood at 2.52% at the end of 2023, and has declined consistently in recent years.<sup>14</sup> Moreover, core Maltese banks also enjoy high profitability with their Return on Equity (ROE) and Return on Assets (ROA) reaching 18.2% and 1.6%, respectively, by the end of 2023.<sup>15</sup> These figures represent a marked improvement over the respective 8.19% and 0.66% levels recorded a year earlier. These developments were further complemented by higher net interest income (NII) received in recent months, largely owing to increased lending activities and the remuneration of banks' excess liquidity at the DFR as from 2022 (Central Bank of Malta, 2024).<sup>16</sup> Maltese banks' performance under these indicators of credit risk and profitability compares favourably to banks operating in other EA countries.<sup>17</sup>

### Concluding remarks

In the light of commercial banks' crucial role in the transmission of monetary policy onto the real economy, this analysis revisited the pass-through of monetary policy decisions onto retail bank lending and deposit rates in Malta. The analysis clearly shows that the transmission of policy tightening via lending rate setting has been rather muted in recent months. Mortgage rates, in particular, have barely moved despite the rapid increase in policy rates, while movements in the interest rate on lending to NFCs have also lagged behind other EA countries. This study also shows that lending rates charged by Maltese banks were among the highest prior to any of the recent hikes in the policy rate by the ECB, which suggests a relatively weak pass-through in Malta even during years characterised by accommodative monetary policy. On the other hand, the transmission of tightening monetary policy onto time deposit rates, particularly those of households, is closer to that witnessed in the EA. Rates offered on overnight deposits have remained stable at very low levels during the latest cycle of tightening monetary policy, although similar developments were also observed in other countries within the EA.

Among the main factors that could potentially explain the low pass-through of monetary policy onto lending rates in Malta, this study shows that Maltese banks enjoy ample liquidity and have a strong accumulation of retail deposits, the vast majority of which are remunerated at very low rates. This allows banks to rely on this source of funding instead of borrowing from the ECB at higher rates, while concurrently being able to comfortably maintain their lending portfolios. In addition, Maltese banks also enjoy rising profitability, strong capital buffers and are subject to relatively low risk associated with non-performing loans. Moreover, lending rates in Malta were already relatively high before the recent tightening of monetary policy. These considerations, alongside others such as a possible desire by

<sup>12</sup> [Financial Soundness Indicators](#) – Core Banks 2015 onwards. See also footnote 10.

<sup>13</sup> Tier 1 capital comprises common shares and stock surplus, retained earnings, other comprehensive income, qualifying minority interest and regulatory adjustments (Common Equity Tier 1) plus capital instruments meeting the criteria for 'Additional Tier 1' capital. See Bank for International Settlements, "Definition of capital in Basel III – Executive Summary" for more details.

<sup>14</sup> See footnote 12.

<sup>15</sup> See footnote 12.

<sup>16</sup> See footnote 11.

<sup>17</sup> See footnote 10.



Maltese banks to preserve long-standing client relationships, could all be plausible explanations of the limited transmission of tightening monetary policy onto lending rates in Malta.

This analyses focused exclusively on one channel of monetary policy, namely the transmission of tightening monetary policy via retail bank rates. However, there exist other channels, such as the *exchange rate* and *asset price* channels which, while not addressed in this note, might also be relevant channels of monetary policy in Malta. In addition, the Maltese economy may also be affected indirectly through spillovers from the effects of tighter monetary policy in other countries, in the form of weaker foreign demand for Malta's output and lower import prices, which might lead to downward pressures on export demand and local prices. Therefore, a true understanding of the full extent of overall monetary policy transmission in Malta necessitates an analysis of the effectiveness of such other channels in the local context.