

3. STRESS TESTS

The Central Bank of Malta employs various stress testing frameworks to assess the resilience of the banking sector in terms of both solvency and liquidity and against various shocks. These frameworks are always being adapted to reflect the prevailing outlook on risks and vulnerabilities and regulatory changes. In addition, the frameworks are enhanced to explore different risk channels and profiles. To this end, this chapter provides an update on the results of the tests that were run in the *FSR 2023* highlighting any significant changes that occurred in the first half of 2024. The chapter also includes Box 2 which comprises an RST on liquidity.

3.1 Scenario-based solvency stress tests

The macro stress testing (MST) framework is a scenario-based exercise that is run on an annual frequency. The findings of banks' resilience from improved profitability, which is susceptible to inflation and changes in interest rates as reported in the *FSR 2023*, remains relevant.

However, since there have been some developments in the composition of bond holdings and to test for possible weaknesses in these holdings, the credit quality deterioration framework provides an update of the results from the modules of the MST related to bonds. It quantifies credit risk for debt securities held at AMC against a three-notch downgrade in their official credit rating, while sovereign and non-sovereign non-AMC debt securities are assessed via a widening in the credit spread and the application of valuation haircuts, respectively.

3.1.1 Credit quality deterioration in the bond portfolio

During the first half of 2024 there have been some changes in the composition of bond holdings. Table 3.1 summarises the main characteristics of the bond holdings for December 2023 and June 2024.

The overall share of bonds to total assets has increased from 28% in December 2023 to 32% in June 2024 for core domestic banks while that of non-core domestic banks has decreased from 23% to 21%. For international banks, bond holdings remain an insignificant share of total assets, increasing from 0.2% to 3%, mainly through bonds acquired in the first half of 2024 accounted for at fair value (FV). Consequently, while core and non-core domestic banks retain a comparable share of bonds held at AMC of 83% and 71%, respectively, the international banks' share swung from 100% to 5%.

Nevertheless, banks continue to invest in highly rated bonds with over 96% of the holdings at investment grade for non-core domestic banks and 100% for the other two bank categories.

Chart 3.1 presents the results for December 2023 and June 2024 following the credit quality deterioration. In June 2024, the Tier 1 capital ratio would drop by 0.23, 0.37 and 0.13 percentage points, respectively for core domestic, non-core domestic and the three international banks in scope of the test. The Tier 1 capital ratio would

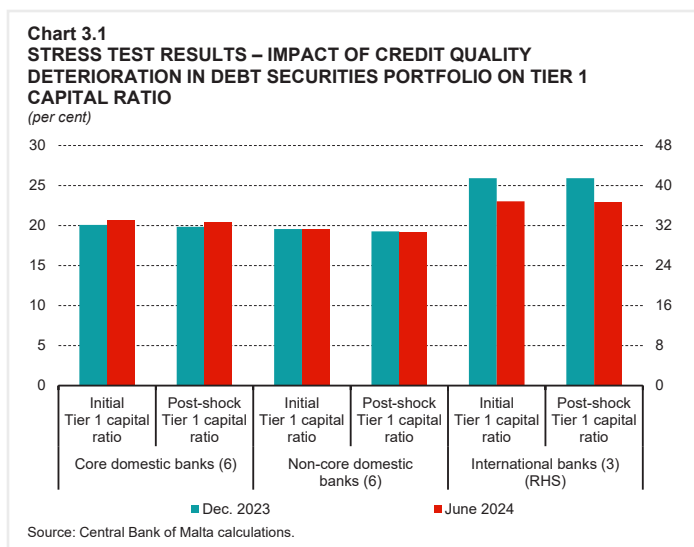
Table 3.1
MAIN CHARACTERISTICS OF THE BOND PORTFOLIO

	Core domestic banks		Non-core domestic		International banks	
	Dec. 2023	June 2024	Dec. 2023	June 2024	Dec. 2023	June 2024
Bonds as a share of total assets	28%	32%	23%	21%	0.2%	3%
Bond held at AMC	84%	83%	77%	71%	100%	5%
Bond held at FV ⁽¹⁾	16%	17%	23%	28%	0%	95%
Bonds at investment grades	100%	100%	95%	96%	100%	100%

Source: Central Bank of Malta.

⁽¹⁾ Bonds at FV can either be accounted for at fair value through profit and loss (FVTPL) or at fair value through other comprehensive income (FVOCI). In June 2024, most bonds were measured at FVOCI, with only two banks making use of the former valuation approach, amounting to around 1% of their respective holdings of bonds.

drop from 20.69% to 20.45%, from 19.61% to 19.24% and from 36.84% to 36.71% for the three respective bank categories. The situation is comparable to that observed in December 2023 for core and non-core domestic banks, with drops in the Tier 1 capital ratio of 0.24 and 0.30 percentage points, respectively. The international banks would not have experienced an impact on their Tier 1 capital ratio in December 2023 but would experience a slight impact in June 2024 due to the change in portfolio composition outlined above. At an individual level, all banks in scope would be able to absorb this impact with the resulting capital ratio exceeding the respective capital requirements.



3.2 Liquidity

The following subsections present an update on the results for June 2024 from the three frameworks assessing the liquidity position of banks. These frameworks are complementary as they focus on different time horizons and benchmarks. The persistent deposit withdrawals (PDW) framework assesses the impact of a bank-run lasting four weeks on the CBC generated from the assumed hierarchy for the liquidation of assets. It has also been extended to act as an RST as presented in Box 2. The LCR and NSFR frameworks assess the absorption of the liquidity requirements over the short-term (less than 30 days) and longer-term (beyond one year), respectively, against the minimum requirement that the respective ratio remains above 100%.

3.2.1 Persistent deposit withdrawals

The PDW framework simulates a bank-run type deposit withdrawals to assess the ability of the CBC to satisfy the liquidity needs of the assumed deposit outflows. Figure 3.1 presents the assumed hierarchy for the composition of CBC made up of liquid assets such as cash, the pledging of eligible bonds as collateral for standard monetary policy operations and, as a last resort, the fire-sale of unencumbered and ineligible bonds. The hierarchy is based on the associated cost of liquidating such assets with cash being ranked as lowest cost due to no remuneration being earned while sale of bonds is deemed high cost as not only are bonds sold at a discount, but any future coupon earnings would also be forgone. Therefore, banks are assumed to make full use of one asset class before liquidating the next in the hierarchy. For more details on

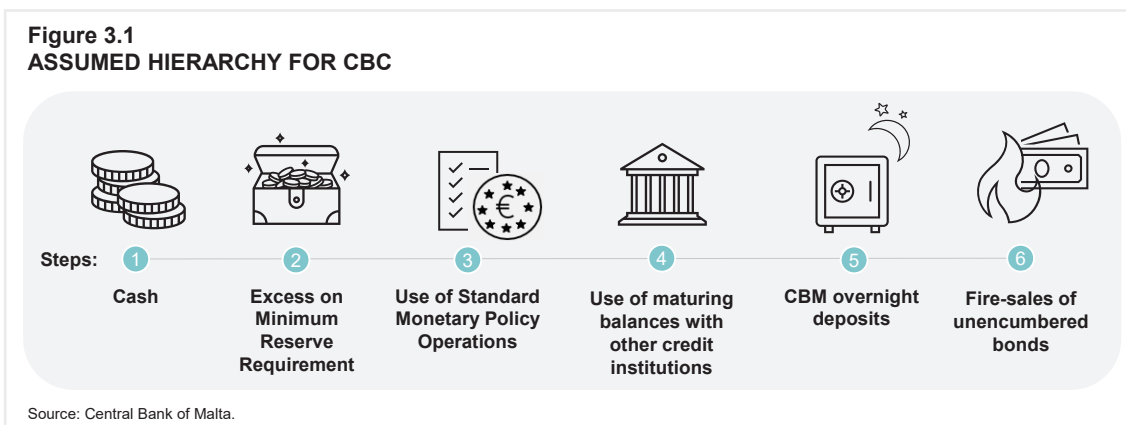


Table 3.2
ENCUMBRANCE AND ECB ELIGIBILITY OF THE BOND

	Core domestic banks		Non-core domestic banks		International banks	
	Dec. 2023	June 2024	Dec. 2023	June 2024	Dec. 2023	June 2024
Unencumbered and eligible	69%	71%	20%	0.5%	38%	19%
Unencumbered and ineligible	16%	13%	29%	46%	62%	0%
Encumbered	15%	16%	51%	53%	0%	81%

Source: Central Bank of Malta.

the framework's methodology and the associated costs considered in ranking asset classes in the assumed hierarchy for the CBC, refer to Section 3.2.1 of the *FSR 2023*.

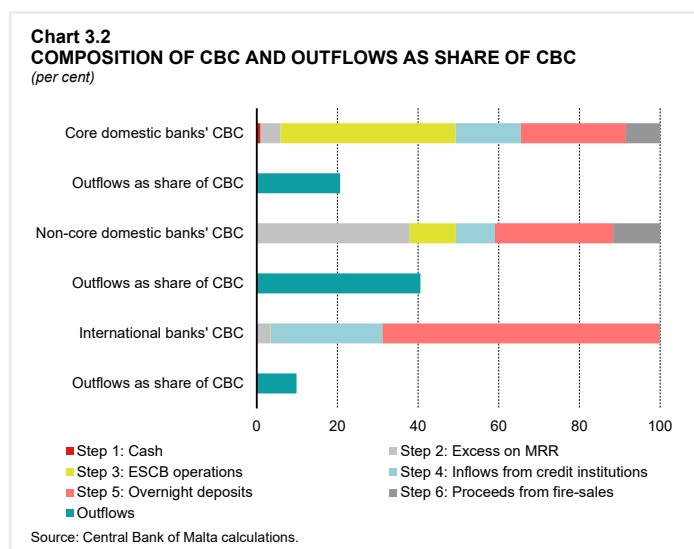
To note that the placements with the Central Bank of Malta have been separated into two steps due to the associated cost of making use of them. Specifically, the excess on the minimum reserve requirement (MRR) is non-remunerated and ranks second after cash, while overnight deposits attract the Deposit Facility Rate and as a major source of income for banks, ranks fifth in the hierarchy.

Moreover, banks can make use of bonds either in step 3 if these are unencumbered and eligible or sold in step 6 if unencumbered but not eligible. Table 3.2 assesses the composition of the bond portfolio in terms of encumbrance and ECB eligibility.

Core domestic banks retain a high share of unencumbered and eligible bonds, increasing from 69% to 71%. These bonds could be pledged for standard monetary policy operations to receive liquidity assistance in the form of short-term loans and thus represent a lower risk in terms of availability of liquidity. The other two categories recorded a reduction in the share of unencumbered and eligible bonds, as a result of the changes in the composition outlined in Table 3.1. Non-core domestic banks reduced their overall holdings, mainly via the sale of eligible bonds while the acquisition of bonds by an international bank has changed the overall distribution of bonds in terms of encumbrance and eligibility. As at June 2024, these two bank categories hold higher shares of bonds that are already encumbered, thereby reducing their capacity to generate liquidity. Non-core domestic banks could generate additional liquidity via the sales of 46% in unencumbered and ineligible bonds (step 6) while international banks could pledge the 19% of unencumbered and eligible bonds (step 3).

The bank-run scenario aims at assessing a bank in isolation and thus features an instantaneous 100% withdrawal of all credit lines and deposits with parent/subsidiaries as well as other credit institutions. It then assumes a steady and regular outflow from sight deposits and fixed term deposits maturing within the test horizon. In general, the PDW framework assumes a run-off of 10% of sight deposits and 25% of fixed term deposits maturing within the test horizon with a higher outflow of 30% for retail deposits sourced from online deposit platforms (ODPs).

Chart 3.2 shows each bank category's composition of the CBC in terms of liquid assets considered in



the hierarchy along with the simulated outflows as a share of CBC. In terms of composition, core domestic banks could rely on 43% of their CBC originating from standard monetary policy operations by pledging ECB eligible assets and a further 31% from the use of placements held with the Central Bank of Malta (5 percentage points in excess on the MRR and a further 26 percentage points from overnight deposits). The CBC of non-core domestic and international banks relies more on placements with the CBM at an overall 67% and 72%, respectively.

The combined outflows of the bank-run scenario for June 2024 amount to 21%, 41% and 10% of the CBC available to the respective category of banks. This is comparable to the results for December 2023 when outflows amounted to 20%, 41% and 11% of CBC. Therefore, banks retain the same ability to withstand the outflows assumed in this framework.

At the individual bank level, two non-core banks run out of CBC due to the assumed full withdrawal of placements within the group and by other credit institutions. The remaining banks would retain an excess of CBC of at least 31%, allowing them to withstand further withdrawals beyond the four-week horizon considered.

While households and, to a lesser extent, NFCs would be the main depositors withdrawing funds in a bank-run scenario, there are various episodes of liquidity strains that could cause groups of depositors to simultaneously withdraw their funds. Box 2 introduces an RST based on the PDW framework that assesses the break point withdrawal rate for specific sectors, both in isolation and combined, that would cause banks to run out of CBC and become illiquid.

BOX 2: REVERSE STRESS TESTS¹

Introduction

Stress tests rely on pre-set hypothetical stressed scenarios and quantify the outcome or impact of this scenario on a particular bank or a group thereof. In an RST, the outcome is pre-determined, and the adversity of the hypothetical scenario keeps changing until the target outcome is reached. This outcome could be a breach of capital requirements, exhausting liquidity buffers or any other events that could cause significant cost to an institution. Hence a failure or a negative outcome for a bank always occurs at the end of an RST. In other words, an RST seeks to discover what it would take for a particular bank to fail or to breach a regulatory target. The aim is to then strengthen banks' resilience through a backward analysis of the vulnerabilities that could lead to this outcome.

RSTs are nowadays embedded in risk management, initially as part of the measures adopted in Regulation (EU) 575/2013 on capital requirements in response to the Great Financial Crisis, and thereafter in any guidelines on best practices. In the respective guidelines issued by the ECB in 2018 on the [Internal Capital Adequacy Assessment Process](#) and [Internal Liquidity Adequacy Assessment Process](#), RSTs are not only a tool to assess vulnerabilities but also act as the starting point for assessing the viability of recovery plans.

This box considers two sets of RSTs that build on the PDW framework to identify the break-point withdrawal rate that would cause banks to run out of their CBC. The first set of scenarios assumes withdrawals from deposits held by households, NFCs and/or financial institutions – both in isolation and combined – to detect the severity of bank-run scenario necessary to cause systemic risks. The second set of scenarios assumes withdrawals from deposits sourced from ODPs to assess the risk that these funds may be temporary in nature, whereby depositors do not roll-over their investment but instead deposit these funds elsewhere after maturity.

RST 1: Depletion of CBC from withdrawals of short-term deposits

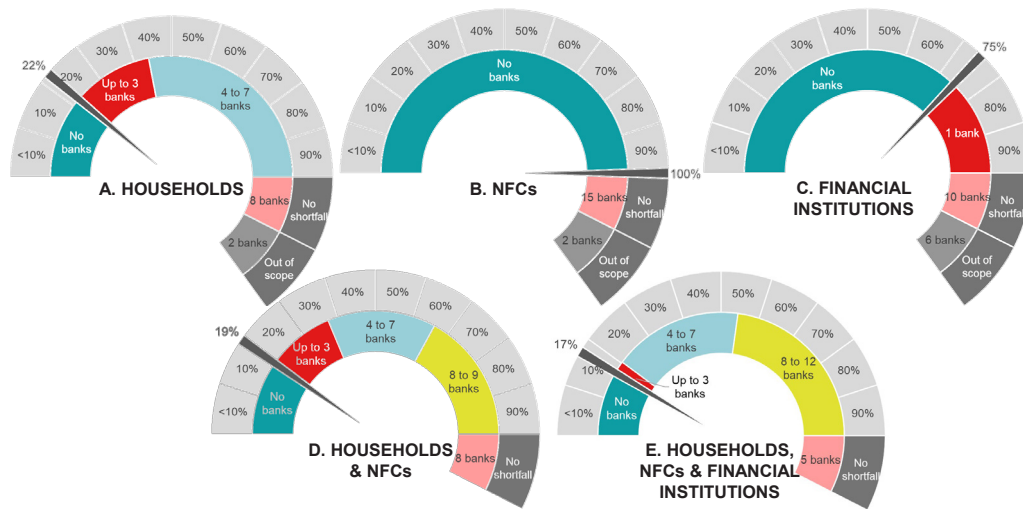
The first set of RSTs presented in this box assumes as outcome that banks run out of the CBC as defined in the PDW framework upon consequent deposit withdrawals. The aim is to work backwards the breakpoint run-off rate from different clusters of depositors that would cause banks to deplete their liquidity buffer. The analysis focuses on short-term deposits, that is sight and term deposits fixed for less than three months, as these can be withdrawn with relative ease.

Figure 1 is composed of five gauges, with the top row showing results for the withdrawals by the three depositor clusters in isolation and the bottom row showing their combined impact. Each gauge represents buckets of withdrawal rates (from below 10% till up to 100%) and the gauge's needle indicates the breakpoint withdrawal rate at which the first bank would run out of CBC.

The top left gauge in panel A shows the impact from withdrawals of short-term household deposits, which amount to 58% of total deposits. The withdrawal of 22% of short-term household deposits would cause the first bank to run out of CBC. Increasing this rate to 44% would cause up to three banks to run out of their respective CBC (red segment of gauge). Out of the 17 banks subject to the RST, there are eight banks that would be able to withstand the full withdrawal of household deposits without depleting the CBC (pink segment). The latter banks have high-levels of CBC that would be able to withstand the full withdrawal of their respective short-term household deposits. A further two banks in the sample would not be impacted, as these do not hold any deposits sourced from households (grey segment). This implies that these two banks do not rely on short-term household deposits as a source of funding.

¹ Prepared by Mr David Stephen Law, Senior Expert and Ms Julieth Paola Vasquez Vargas, Quantitative Analyst, both within the Policy Crisis Management and Stress Testing Department. The authors would like to thank Ms Christine Balzan – Manager, Policy Crisis Management and Stress Testing Department and Mr Alan Cassar – Chief Officer, Financial Stability and Statistics Division for their valuable suggestions.

Figure 1
RST – BREAKPOINT WITHDRAWAL RATE FOR FIVE GROUPS OF DEPOSITORS



Source: Central Bank of Malta.

Panel B shows the results for the RST applied to deposits by NFCs which amount to 14% of total deposits. In this case, none of the banks would run out of the CBC as 15 banks have a CBC that is greater than the volume of short-term NFC deposits, in addition to two banks that do not have any deposits placed by NFCs.

Panel C shows instead the results for the RST applied to deposits placed by financial institutions which amount to 15% of total deposits. In this case one bank would run out of CBC with run-off rates of 75% or higher, ten banks would not deplete their CBC even assuming a full withdrawal of deposits from financial institutions and five banks do not have deposits sourced from this sector.

Panel D shows the impact from withdrawals of deposits by households and NFCs which amount to 72% of total deposits. Nevertheless, the picture is not substantially different from the impact of households alone as only 20% of these deposits originate from NFCs. The breakpoint run-off rate stands at 19% (instead of 22%), affecting up to three banks at run-off rates at 37% (red segment) and up to seven banks at run-off rates of at least 66% (light blue segment).

Finally, panel E shows the combined impact from withdrawals of short-term deposits by households, NFCs and financial institutions, which combined amount to 87% of total deposits.² The run-off rates required to deplete the CBC are lower at 17% for the breakpoint, 20% for up to the three banks (red segment) and 54% for up to seven banks (light blue segment). The higher impact in this scenario can once again be attributed to the larger deposit base being considered, as the volume of outflows are not substantially different than those in panel A with withdrawals from household deposits only. Consequently, the resulting breaking point is lowered further from 22% to 17%. The only exception in which deposits withdrawals are higher than those for household only, is for one of the ten banks that could withstand, in isolation, the full withdrawal of either deposits by NFCs or financial institutions as well as over 65% of deposit withdrawals by households; but would experience a breakpoint run-off rate of around 20% in this scenario combining all three groups of depositors.

² The RST focuses on three clusters which combined amount to 87% of total deposits. The remaining 13% are mainly long-term deposits or additional short-term deposits to other clusters of depositors.

The results therefore show that banks have a higher reliance on short-term household deposits as a main source of funding amounting to 59% of total deposits or 82% of household deposits, i.e. only 18% of household deposits are fixed for a term beyond three months. However, under the severe scenarios of combined withdrawals from NFCs and more so with financial institutions, banks could experience additional liquidity strains to fund these outflows. Therefore, to account for this sensitivity to financial institutions, the PDW framework regularly tests the bank-run scenario targeting mainly households and NFCs but also assuming the full withdrawal of interbank and intragroup funding to assess the resilience of credit institutions in isolation. This would be one of the more extreme assumptions in the PDW framework, which is essential for the detection of any underlying systemic risks.

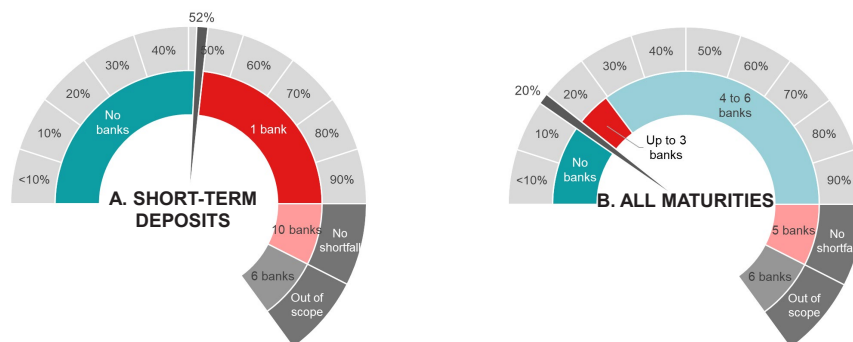
RST 2: Depletion of CBC from withdrawal of deposits sourced from ODPs

The second set of RSTs assumes as an outcome that any deposits sourced from ODPs would be withdrawn. The severe outcome being assessed here is roll-over risk, with potentially one of the sources of funding for banks being discontinued. The risk of immediate withdrawal is highest for short-term deposits (sight deposits and term deposits fixed for up to three months). As at June 2024, only 10% of total deposits from ODPs, or 1% of total deposits, are short-term. The remaining 90% of deposits sourced from ODPs, or 7% of total deposits, have a fixed term beyond three months. The risk of immediate withdrawals can be extended to all maturities by assuming that clients want immediate access to their funds and are willing to incur any costs associated with early withdrawal of term deposits. If upon maturity banks retain a similar composition of CBC, the latter scenario can also be interpreted as an assessment for roll-over risk whereby these depositors would move their funds elsewhere upon maturity, reflecting the temporary nature of deposits sourced from ODPs.

Figure 2 presents the outcome of the exercise for short-term deposits (sight and term deposits fixed for up to three months) and across all maturities.

There are 11 banks that source deposits from ODPs, ranging between 1% and 30% of their total deposits. As shown in panel A of Figure 2, only one bank would run out of CBC if at least 52% of short-term deposits were withdrawn. Moving to panel B and assuming withdrawals across all maturities, the number of banks with CBC in excess of deposits sourced from ODPs goes down from ten to five (pink segment in both panels), with run off rates of 20% for the breakpoint shown by the speedometer's needle, 30% for the first three banks (red segment) and higher for the remaining banks (light blue segment). However, since most of these deposits are fixed for a term exceeding three months, banks would have enough time to plan ahead for these maturities and ensure alternative sources of funding.

Figure 2
RST – BREAKPOINT WITHDRAWALS FROM ODPs



Source: Central Bank of Malta.

3.2.2 Liquidity coverage ratio

The LCR framework further assesses the impact of deposit outflows occurring over a 30-day horizon against the 100% minimum regulatory requirement for the LCR. The LCR is defined as the ratio of the buffer of HQLA to net liquidity outflows. Table 3.3 summarises the scenarios which consist of a baseline and three adverse scenarios with a comparison of the results for December 2023 and June 2024.

The results of the framework for core domestic banks for June 2024 are comparable to those for December 2023, across both the baseline and all adverse scenarios. The initial LCR is slightly lower at 360% compared to 369% in December due to a decrease of 2% in the HQLA buffer and a slight increase of under 1% in the net liquidity outflows. This discrepancy in the starting point trickles down into the impact of the adverse scenarios with comparable but slightly lower resulting LCR under the adverse scenario. The largest drop in the ratio is observed under scenario 3 with the LCR dropping at most to 142% from the withdrawal of committed facilities under Adverse Scenario 3, compared to 156% in December.

Meanwhile, non-core domestic banks experienced an increase in their initial LCR at 458% compared to 397% in December. This is due to an increase in the HQLA buffer of 9.5% while the net liquidity outflows remains stable. This growth in the starting point LCR directly affects the improvement observed under all adverse scenarios with the largest drop in the LCR occurring under adverse scenario 2, which is characterised by higher withdrawals from resident and non-resident time deposits, reaching 208% compared to 159% in December.

International banks also experienced a decline in the baseline scenario from 578% in December 2023 to 448% in June 2024. This is due to the combined impact of a 17% reduction in the liquidity buffer and an 18% increase in net liquidity outflows. Similar to other bank categories, the change in baseline is mostly responsible for the changes in results under the adverse scenarios for the two reference dates. The largest drop in the LCR is observed under adverse scenario 2 to reach 241% from 292% in December.

At the individual bank level, weaknesses are identified across three banks. Compared to December 2023, one bank has improved its initial LCR in June 2024 and would now be able to sustain an LCR above the minimum requirement in all adverse scenarios.

Table 3.3

DESCRIPTION OF LCR FRAMEWORK'S BASELINE AND ADVERSE SCENARIOS

Scenario	Description	Core domestic banks		Non-core domestic banks		International banks	
		Dec. 2023	June 2024	Dec. 2023	June 2024	Dec. 2023	June 2024
Baseline	Haircuts and outflow/inflow rates as prescribed by the (EU) 2015/61	369%	360%	397%	458%	579%	448%
Adverse: Scenario 1	Higher outflows compared to the (EU) 2015/61	200%	196%	241%	279%	338%	264%
Scenario 2	Scenario 1 with additional withdrawals from both resident and non-resident time deposits	181%	177%	159%	208%	292%	241%
Scenario 3	Baseline scenario with full withdrawal of committed facilities to NFCs and households	156%	142%	334%	407%	553%	423%

Source: Central Bank of Malta.

3.2.3 NSFR

The NSFR framework complements the findings of the previous two liquidity stress tests by focusing on the longer-term liquidity position. The ratio assesses the available stable funding (ASF) as capital instruments and liabilities that will remain with the institution for more than one year and the required stable funding (RSF) as assets and off-balance sheet exposures requiring liquidity. Table 3.4 summarises the scenarios of the NSFR framework and compares the results of June 2024 with December 2023.

Like the LCR results, the changes in the baseline are mainly responsible for the impact observed under the adverse scenarios. For core domestic banks the initial NSFR improves by only 1 percentage point from 177% to 178% and has similar results across adverse scenarios 1, 2 and 3 with a divergence of at most a percentage point. Under adverse scenario 4, the NSFR drops to 129% compared to 131% in December due to a slight increase in committed facilities.

Similarly for non-core domestic banks, the initial NSFR improves by 6 percentage points to 206% from 198% and drops at most to 157% under adverse scenario 3 (which builds on 1 and 2) compared to 154% in December 2023.

The starting NSFR for international banks has decreased by 63 percentage points to reach 139% in June 2024 down from 202% in December 2023. The drop can be attributed to the increase in the RSF of 15% compared to the previous year and is mainly linked to the acquisition of bonds discussed in Section 3.1. The NSFR drops at most to 116% under adverse scenario 3 compared to 156% in December and, while remaining above the minimum requirement, is closer to the 100% threshold.

At the individual bank level, there are updates in the results for two banks compared to December 2023. The first retains a comparable initial NSFR and impact under adverse scenario 4, which assumes the full withdrawal of committed facilities. The other bank improved its starting NSFR substantially and would surpass the NSFR requirement under all adverse scenarios.

Table 3.4

DESCRIPTION OF NSFR FRAMEWORK'S BASELINE AND ADVERSE SCENARIOS

Scenario	Description	Core domestic banks		Non-core domestic banks		International banks	
		Dec. 2023	June 2024	Dec. 2023	June 2024	Dec. 2023	June 2024
Baseline	ASF and RSF factors as prescribed by the Regulation (EU) 2019/876	177%	178%	198%	206%	202%	139%
Adverse:							
Scenario 1	A higher run-off for retail and wholesale deposits impacting the availability of stable funding	164%	165%	182%	189%	185%	132%
Scenario 2	Adverse scenario 1 with some loans become non-performing requiring more stable funding to support them impacting the RSF	144%	144%	158%	161%	160%	118%
Scenario 3	Adverse scenario 2 with pressure in the market reducing the value of bonds and equities (Level 1, 2A and 2B HQLA and other securities) implying the need for further stable funding	142%	142%	154%	157%	156%	116%
Scenario 4	Baseline with full withdrawal of committed facilities to NFCs and households (Similar to LCR adverse scenario 3)	131%	129%	157%	162%	158%	134%

Source: Central Bank of Malta.

3.3 Interest rate risk in the banking book

The interest rate risk in the banking book (IRRBB) framework analyses the impact of changes in interest rates under the six scenarios prescribed in Annex 2 of the [2016 Basel Committee on Banking Supervision standards](#). These scenarios are also incorporated in the EBA Implementing Technical Standards (ITS) on IRRBB ([EBA/ITS/2023/03](#)) and corresponding templates as part of EBA [reporting framework 3.4](#).

These scenarios consist of a parallel shift upwards and downwards of the yield curve as at the reference date, an increase and a decrease in the short rate end of the curve and two composite shifts in the short and long-term rates referred to as the *steepener* and *flattener* scenarios. All six scenarios affect the term structure of the yield curve and differ in terms of the currency in which the instruments are denominated. The exercise focuses only on EUR, GBP and USD as the material currencies in which the banking book is denominated, the latter two being the most relevant non-EUR currencies for all three banking categories. Indeed, 99%, 97% and 85% of the banking book of core domestic, non-core domestic banks and international banks is denominated in these three currencies. These are comparable to the respective shares of these three currencies reported in December 2023 at 99%, 98% and 88% of the banking book. EUR remains the most relevant currency representing 96%, 79% and 78% of the banking book of these three bank categories, respectively.

The framework assesses the immediate impact of changes in interest rates under these scenarios to profitability via the NII and the revaluation of bonds held by banks measured at FV.

Table 3.5 presents the impact on the three bank categories' Tier 1 capital ratios from changes in NII and bond revaluations under the three scenarios, after applying the corporate tax rate of 35% on banks' profits.¹

		Core domestic banks	Non-core domestic banks	International banks
Initial Tier 1 capital ratio		20.69	19.61	36.84
Parallel up	<i>NII</i>	2.31	1.91	1.79
	<i>Revaluations</i>	-0.59	-1.07	-0.20
	Post-shock Tier 1 capital ratio	22.41	20.45	38.44
Parallel down	<i>NII</i>	-1.84	-1.81	-1.64
	<i>Revaluations</i>	0.67	1.40	0.22
	Post-shock Tier 1 capital ratio	19.51	19.20	35.42
Flattener	<i>NII</i>	2.16	1.70	1.70
	<i>Revaluations</i>	-0.13	0.07	-0.05
	Post-shock Tier 1 capital ratio	22.72	21.38	38.50
Steepener	<i>NII</i>	-1.38	-1.31	-1.26
	<i>Revaluations</i>	0.03	-0.24	0.01
	Post-shock Tier 1 capital ratio	19.33	18.07	35.60
Short rate up	<i>NII</i>	2.72	2.14	2.13
	<i>Revaluations</i>	-0.30	-0.30	-0.10
	Post-shock Tier 1 capital ratio	23.10	21.45	38.87
Short rate down	<i>NII</i>	-2.15	-2.03	-1.95
	<i>Revaluations</i>	0.32	0.31	0.11
	Post-shock Tier 1 capital ratio	18.85	17.89	35.00

Source: Central Bank of Malta calculations.

¹ Banks may apply a lower tax rate if in previous years they have accumulated deferred tax assets; however, for the scope of this stress test, deferred tax assets are not being considered. Revaluations for FVOCI are not subject to taxes but charged directly to capital.

While core domestic banks retain a stable share of bonds at FV at 17% of total bonds, there has been a change in the share of bonds accounted at FV for non-core domestic and international banks increasing from 23% and 0% in December 2023 to 28% and 95% in June 2023. This increase in FV bonds is mainly due to the acquisition of bonds that occurred in the first half of 2024. Consequently, unlike the results for December 2023 which showed negligible contributions of revaluations to the overall impact of each scenario, the results shown in Table 3.5 are also affected by revaluations of bonds held at FV.

The three scenarios featuring short-term increases in interest rates yield positive results for all three bank categories. The most positive impact is experienced under the *short rate up* scenario under which the Tier 1 capital ratio increases by 2.41, 1.84 and 2.03 percentage points for core domestic, non-core domestic and international banks, respectively. Conversely, the scenarios featuring drops in short-term interest rates yield a lowering of the capital ratio compared to the June 2024 position. The least positive impact is experienced under the *short rate down* scenario, where the Tier 1 capital ratio drops by -1.83, -1.72 and -1.85 percentage points, respectively. Nevertheless, the capital ratios remain well above the applicable capital requirements.