

BANK ĊENTRALI TA' MALTA
EUROSISTEMA
CENTRAL BANK OF MALTA

TWELFTH FINANCIAL STABILITY REPORT

2019

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ABBREVIATIONS

AIF	Alternative Investment Funds
AMC	amortised cost (accounting treatment)
AML/CFT	anti-money laundering/combating the financing of terrorism
APP	Asset Purchase Programme
AUM	Assets under Management
BBM	Borrower-based Measures
BCBS	Basel Committee on Banking Supervision
BIA	Basel's Basic Indicator Approach (for calculating operational risk capital requirements)
BLS	Bank Lending Survey
BR	Banking Rule
BRRD	Bank Recovery and Resolution Directive
CBC	counter balancing capacity
CBM	Central Bank of Malta
CCB	Capital Conservation Buffer
CCyB	Countercyclical Capital Buffer
CET1	Common Equity Tier 1
CFIML	captive financial institutions and money lenders
CIU	Collective Investment Undertakings
CQD	Credit Quality Deterioration
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
DCS	Depositor Compensation Scheme
DFR	deposit facility rate
DSTI	debt-service-to-income
EBA	European Banking Authority
ESAs	European Supervisory Authorities
ECB	European Central Bank
EIOPA	European Insurance and Occupational Pensions Authority
EU	European Union
ESRB	European Systemic Risk Board
FA	financial auxiliaries
FATF	Financial Action Task force
FIAU	Financial Intelligence Analysis Unit
FSAP	Financial Sector Assessment Programme
FSR	Financial Stability Report
FSSA	Financial System Stability Assessment
FV	fair value
FVOCI	fair value through other comprehensive income (accounting treatment)
FVTPL	fair value through profit and loss (accounting treatment)
FX	foreign exchange
GBP	British Pound Sterling
GDP	gross domestic product
G-SII	globally systemically important institutions
GVA	gross value added
HQLA	high-quality liquid assets
IFR/IFD	Investment Firms Regulation and Directive
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IRRBB	interest rate risk in the banking book
ICPF	insurance corporations and pension funds
LCR	liquidity coverage ratio

LHS	left-hand scale
LGD	loss given default
LiST	SSM's 2019 Liquidity Stress Test exercise
LSTI	loan-service-to-income
LTI	loan-to-income
LTV	loan-to-value
LTV-O	loan-to-value at origination
MiFID	Markets in Financial Instruments Directive
MFI	monetary financial institution
MFSA	Malta Financial Services Authority
MGS	Malta Government Stocks
MMF	money market funds
MREL	minimum requirements for own funds and eligible liabilities
MSE	Malta Stock Exchange
MST	macro stress testing
NACE	nomenclature statistique des activités économiques dans la communauté européenne
NAIF	notified alternative investment fund
NAV	net asset value
NFC	non-financial corporations
NII	net interest income
NIM	net interest margin
NNII	net non-interest income
NPE	non-performing exposures
NPISH	non-profit institutions serving households
NPL	non-performing loans
NSFR	Net Stable Funding Ratio
NTI	net trading income
O-SIIs	other systemically important institutions
OCI	other comprehensive income
OCR	overall capital requirement
OFI	other financial intermediaries
P&L	Profit and Loss account
PDW	persistent deposit withdrawals
PEPP	pandemic emergency purchase programme
PIF	Professional Investor Fund
P2G	Pillar 2 Guidance
RHS	right-hand scale
RI	relevant indicator (for calculating operational risk capital requirements)
ROA	return on assets
ROE	return on equity
RRE	residential real estate
RRM	risk reduction measures
RWA	risk-weighted assets
SBS	security by security
SCTS	SEPA credit transfers
SDD	SEPA direct debits
SDW	Statistical Data Warehouse
SRMR	Single Resolution Mechanism Regulation
SREP	Supervisory Review and Evaluation Process
SSM	Single Supervisory Mechanism
STREAM	Structural Macro-Econometric Model of the Maltese Economy
TLAC	Total Loss-Absorbing Capacity
TLTRO	targeted longer-term refinancing operations

TSCR	total SREP capital requirement
UCITS	Undertakings of the Collective Investment in Transferable Securities
UK	United Kingdom
US	United States of America
USD	United States dollar

THE DOMESTIC FINANCIAL SECTOR		
Banks		
Core Domestic Banks	Non-Core Domestic Banks	International Banks
APS Bank plc	FCM Bank Limited	AgriBank plc
Bank of Valletta plc	FIMBank plc	Akbank T.A.S. (Branch)
BNF Bank plc	IIG Bank (Malta) Limited	CommBank Europe Limited
HSBC Bank Malta plc	Izola Bank plc	Credit Europe Bank NV (Branch)
Lombard Bank Malta plc	Sparkasse Bank Malta plc	Creedorax Bank Limited
MeDirect Bank (Malta) plc		European Depository Bank SA (Malta Branch) ⁽¹⁾
		ECCM plc
		Ferratum Bank Limited
		Merkanti Bank Limited
		NBG Bank Malta Limited
		Novum Bank Limited
		Satabank plc ⁽²⁾
		Turkiye Garanti Bankasi A S (Branch)
		Yapi Kredi Bank Malta Limited
Domestic Investment Funds		
Altinum Funds SICAV plc	EOS Sicav Plc	Sunshine Fund (Malta) SICAV Limited
Altinum Fund	Emerging Market Trade Finance Fund	Alba Fund
Amalgamated Investments SICAV p.l.c.	Futura Funds Sicav plc	The Multi-Asset Fund
Amalgamated Growth and Income Fund	Futura Real Estate Fund	TEE Market Fund SICAV plc
APS Funds SICAV plc	Global Funds SICAV p.l.c.	TEE Market A Fund
APS Diversified Bond Fund	Global Bond Fund Plus	VENTURA SICAV PLC.
APS Income Fund	Malta Privatisation and Equity Fund	Digital Opportunities 1 Fund
APS Regular Income Ethical Fund	Melita International Equity Fund	Vilhena Funds SICAV p.l.c.
Arco SICAV plc	HSBC Malta Funds SICAV p.l.c.	Global Balanced Multi-Manager Fund
A and G Fund	Equity Growth Fund	Vilhena Broad Opportunities Fund
CS Fund	HSBC Property Investment Fund	Vilhena Euro Income Fund
CT Fund	International Bond Fund	Vilhena European Multi Manager Fund
JB Fund	Malta Bond Fund	Vilhena Far East Opportunities
NS Fund	Malta Government Bond Fund	Vilhena Global Themed Fund
QV Fund	Maltese Assets Fund	Vilhena High Yield Fund
Audentia Capital SICAV II plc	Integra Private Wealth SICAV Plc	Vilhena Malta Bond Fund
Audentia Top Talent Fund	IPW Alternatives Fund	Vilhena Malta Fund
Barlei Fund	Merill SICAV plc	Vilhena Malta Government Bond Fund
PDT One Fund	Merill Global Equity Income Fund	Vilhena Maltese Equity Focus Fund
Septentrium Rates Oriented Fund	Merill High Income Fund	Vilhena Maltese Opportunities Fund
Audentia Capital SICAV plc	Merill Total Return Income Fund	Vilhena Sterling Income Fund
Filfla Fund	Northern Cross SICAV plc	
Bianco SICAV plc	Resonor Gold Fund	
Bianco SICAV plc	Novium Opportunity Umbrella SICAV plc	
BOV Asset Management Limited	Personal Care Fund ⁽³⁾	
BOV Balanced Portfolio Fund	Special Situations Fund ⁽³⁾	
BOV Conservative Portfolio Fund	Priveq Funds Sicav Plc	
BOV Growth Portfolio Fund	Equest Fund	
Calamatta Cuschieri Funds SICAV plc	Logivest Fund	
Emerging Market Bond Fund	Privest Fund	
Euro Equity Fund	Southern Cross SICAV plc	
Global Balanced Income Fund	Avalon Tech Fund	
High Income Bond Fund- EUR	Strategica Funds SICAV plc	
Global High Income Bond Fund	Zattere Fund	
Malta Balanced Income Fund		
Malta Government Bond Fund		
Domestic Insurance Companies		
Life Insurance Companies	Non-Life Insurance Companies	
GlobalCapital Life Insurance Limited	Atlas Insurance PCC Limited	
HSBC Life Assurance (Malta) Limited	Citadel Insurance plc	
MAPFRE MSV Life plc	Elmo Insurance Limited	
	Gasamamo Insurance Limited	
	MAPFRE Middlesea plc	
<p>⁽¹⁾ European Depository Bank SA (Malta Branch) is a branch of the European Depository Bank SA (LX) and is licensed to offer custody services.</p> <p>⁽²⁾ In October 2018, the MFSA appointed Ernst and Young Ltd as a competent person in terms of Article 29(1)(c) and (d) of the Banking Act to take charge of the bank. Satabank's licence was withdrawn on 30 June 2020.</p> <p>⁽³⁾ Personal Care and Special Situation Funds are in the process of being liquidated.</p> <p>This edition of the <i>Financial Stability Report</i> is based on the above categorisation of banks, domestically-relevant insurance companies and investment funds.</p>		

PREFACE

A sound and robust financial system is the cornerstone of the national economic infrastructure as it fosters the economic growth potential of a country by allocating financial resources efficiently. Without financial stability, broader economic and price stability are unlikely to materialise. It is therefore not by coincidence that financial stability is at the core of the Central Bank of Malta's mandate. The COVID-19 pandemic poses the biggest test to the resilience of the Maltese financial system since the Great Financial Crisis. Prompt responses by the Maltese Government, the regulatory and supervisory authorities – including the ECB, the Central Bank of Malta and credit institutions themselves were targeted to provide the required liquidity to ensure the continuation of financial stability, and support to the real economy.

This edition of the *Financial Stability Report*, assesses the current and potential financial stability risks in the financial system, the policy actions implemented during the year, and puts forward recommendations to stakeholders in a bid to further bolster the resilience of the financial system.

Typically, the *Report* covers the developments in the financial sector of the previous calendar year. Given the current unprecedented events, this edition also includes a special feature on the channels through which the COVID-19 contagion is impacting the domestic financial system. The *Report* also carries a number of other boxed articles, including a discussion of the latest macroprudential measures.

The *Financial Stability Report* is prepared by the Financial Stability Department of the Central Bank of Malta and is reviewed and endorsed by the Financial Stability Committee, which is an internal structure mandated to oversee the risk assessment and policy measures related to financial stability and the macroprudential framework.



1. MACROPRUDENTIAL RISK ASSESSMENT

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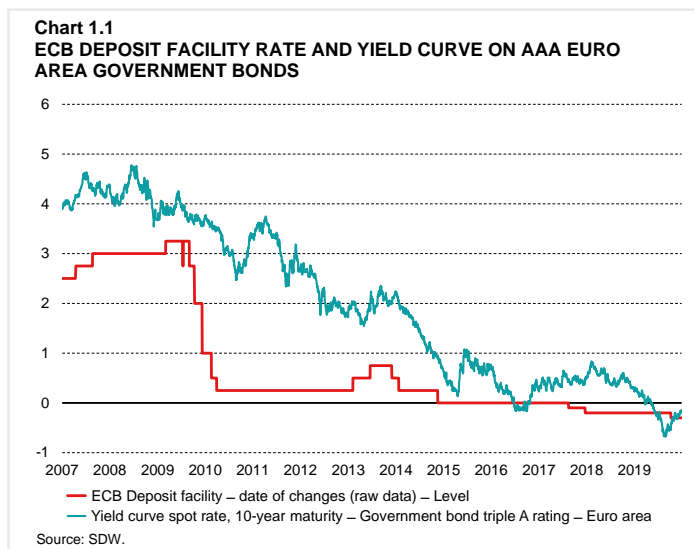
In 2019, the financial stability environment in Europe remained challenging as downside risks have increased. The ultra-low interest rate environment, weak international trade spurred by trade tensions between the United States of America and China, and the looming Brexit deadline were some of the main threats faced by the global financial system. Indeed, growth in Europe's economy slowed down to 1.5% in real terms from the 2.0% registered in 2018.¹ Even though global growth weakened, stock markets rose significantly during 2019 with major indices, including the Euro Stoxx 50 index, reaching their highest level since the 2008 global financial crisis.² This market rally was partly driven by the UK election results in December 2019, and the US-China phase-one trade deal coupled with the interest rate decisions by the Federal Reserve, which alleviated some of investors' concerns.

Notwithstanding these international challenges and the softening of the macro environment, the Maltese economy continued to grow robustly, albeit at a slower rate, and continued to post one of the highest growth rates in Europe.³ Looking ahead, the spread of COVID-19 will be a critical challenge for the European financial system as the pandemic is disrupting economic activity bringing about a sharp global economic downturn, with governments taking unprecedented measures to limit this fall out.

International Developments

2019 was a decisive year for the United Kingdom, as negotiations on its exit from the European Union gathered momentum. These preparations had consequences on the operational structure of credit and financial institutions that operated or had the majority of their business in the United Kingdom. Global banks that act as intermediaries in capital and derivatives markets made plans to transfer some activities from the United Kingdom to continue servicing their counterparties in the euro area.⁴ Contingency plans for a hard-Brexit scenario continued to be developed during the year. In addition, market uncertainty on Brexit developments persisted as UK elections were called that were to determine the future of the United Kingdom in the European Union. However, the confirmation of government with a resounding majority in December 2019 eased uncertainty, with the Pound Sterling gaining ground against the euro, rising from its lowest level of 1.077 in August 2019 to end the year at 1.175.⁵ Brexit officially took place on 31 January 2020. Going forward, uncertainties will persist as discussions on future agreements, which were in part disrupted by the pandemic, continue during the transition period which is scheduled to end on 31 December 2020.

After more than three years of unchanged policy interest rates, in September 2019, the European Central Bank (ECB) cut its deposit facility rate by 10 basis points to -0.5% (see Chart 1.1).⁶ This accommodative monetary policy stance was also accompanied with a fresh stimulus package, which came into place with the approval of a new



¹ Source: <https://ec.europa.eu/eurostat/databrowser/view/tec00115/default/table?lang=en>

² Source: <https://www.stoxx.com/index-details?symbol=SX5E>

³ Source: https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-performance-country/malta/economic-forecast-malta_en

⁴ Source: https://www.ecb.europa.eu/pub/fin/article/html/ecb.fiart202003_01~690a86d168.en.html#toc1

⁵ Source: https://www.ecb.europa.eu/stats/policy_and_exchange_rates/euro_reference_exchange_rates/html/eurofxref-graph-gbp.en.html#

⁶ Source: ECB Statistical Data Warehouse (SDW)

round of bond purchases to shore up growth in the euro area and halt the drop in inflation expectations. At the same time, the ECB eased the terms of its targeted longer-term refinancing operations (TLTRO) to stimulate lending and introduced a two-tier system for reserve remuneration to mitigate possible side-effects of the ultra-expansionary monetary policy. The latter exempts part of the banks' excess liquidity from negative remuneration with the aim of supporting further the bank-based transmission of monetary policy.⁷

Despite such measures, profitability remains challenging for the euro area banking system, with the prolonged ultra-low interest rate environment continuing to exert its toll. The return on equity (ROE) and return on assets (ROA) of banks in the European Union declined from 5.9% and 0.42% in 2018 to 5.2% and 0.37%, respectively by the fourth quarter of 2019.⁸ In addition, overall credit to the real economy stayed broadly unchanged in 2019. According to the ECB's Bank Lending Survey, credit standards on loans to enterprises and mortgages remained relatively unchanged in 2019. However, credit standards for consumer credit and other lending were tightened during 2019. Furthermore, yields on euro area government bonds declined to a low of -0.68% in August 2019 from 0.32% in 2018 to recover somewhat by year end at -0.14%, making it costly for investors to hold highly-rated government paper (see Chart 1.1).⁹ Investors were motivated to take on higher risk, with potential negative repercussions should sentiment change causing a repricing of risk premia.

High public and private sector indebtedness continued to be a matter for attention. Euro area sovereign debt as a share of GDP stood at 84.2% by the fourth quarter of 2019, down by 1.7 percentage points compared to the previous year. The share of debt maturing within one year stood at around 12% of euro area GDP, with some countries reporting as high as 20%.¹⁰ Public debt levels are anticipated to rise further owing to the extraordinary measures by Governments to combat the pandemic. Moreover, household indebtedness varied across euro area countries, ranging from around 23% to over 100% of GDP, with the overall average for the year standing at 57.9%.

Cyber-attacks on financial institutions continued to pose a challenge to global financial stability as such risks could potentially materialise as financial and reputational losses and – depending on their severity – could also impair the functioning of the financial system. In addition, discussions on the potential implications of climate change on financial institutions are gaining ground as failure to address climate risk through the banks' exposures to high-carbon sectors could provoke financial disruption, affecting their profitability through lower asset values and depleted repayment capacity. The distribution of euro area bank exposures to non-financial corporations (NFCs) and their respective emission intensities has been gradually improving, minimising somewhat the risk of an abrupt transition period.¹¹ However, in line with the European Commission's action plan for sustainable growth, work on a harmonised taxonomy is necessary and should be speeded up further coupled with the need to develop more harmonised reporting requirements that could measure firm-level exposures to climate-related risks.¹² Insurance companies are more vulnerable to climate change risk since natural disasters, global warming and rising sea levels create potential risk of property damages and loss of life, with potential implications on rising claims.

Domestic Developments

Despite growing at a slower pace than in 2018, the Maltese economy registered a real growth rate of 4.4% in 2019. Economic activity was mostly driven by private and public consumption, which contributed 3.1 percentage points to growth, while gross fixed capital formation added a further 1.5 percentage points. Net exports shaved 0.2 percentage point off real GDP growth in 2019. Service-oriented sectors continued to be the engine of economic growth.

⁷ <https://www.ecb.europa.eu/mopo/two-tier/html/index.en.html>

⁸ Source: ECB SDW

⁹ Source: ECB SDW

¹⁰ Source: ECB SDW

¹¹ Source: ECB, Financial Stability Review, November 2019

¹² European Commission, EU Taxonomy for Sustainable Activities

Government debt as a share of GDP decreased from 45.6% in December 2018 to 43.1% in the last quarter of 2019, while a fiscal surplus of 0.5% was registered. Household indebtedness stood at around 50% of GDP by the end of 2019, up by 1.3 percentage points over a year ago. Furthermore, corporate indebtedness in Malta increased marginally in relation to GDP, standing at 80.5% in 2019 Q4, up by 0.4 percentage point compared to the same period last year. Nonetheless, corporate leverage – measured as the overall consolidated NFC debt as a share of firms’ assets – declined by 1.5 percentage points to 31.5%, just slightly below the average for the euro area which stood at 31.8%.¹³ In fact, corporate leverage has been on a declining path since 2008, where it stood at 64.5%. Domestic firms continued to fund their operations from related companies, though as a share of GDP this has been declining and stood around 59% by end 2019, slightly higher than the euro area average of around 57%.¹⁴

At 6.1%, the increase in real estate prices in 2019 exceeded somewhat that of 2018, mainly as a result of developments in the first half of the year, with growth decelerating in the latter half.¹⁵ Housing supply adjusted following four years of double-digit growth, with the number of permitted dwellings declining by around 3% in 2019, indicating that a possible plateau was reached.

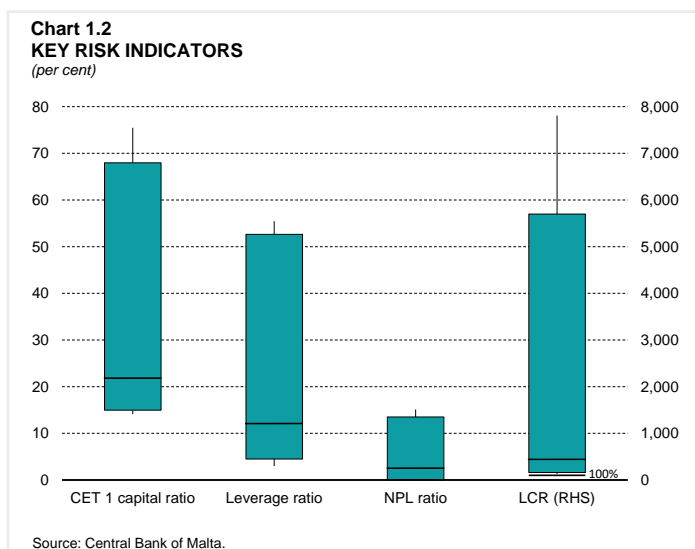
While resident credit growth remained overall stable at 6.8%, this continued to be largely driven by growth in mortgages, which picked up further momentum in 2019. In contrast, growth in lending to NFCs decelerated to 2.8%, notwithstanding that gross value added (GVA) expanded by 7.5% in 2019. The slowdown in NFC credit mainly reflected a drop in lending to the wholesale and retail, and the manufacturing sectors. This was somewhat offset by higher lending in the professional, scientific and technical activities, and construction and real estate sectors, which all reported significant growth in the GVA of around 10%.

Credit risk continued to improve as non-performing loans (NPLs) declined by 6.7% in 2019. This was mainly due to improved creditworthiness of borrowers within construction, real estate as well as manufacturing, transportation and storage coupled with a growing economy and a targeted strategy by domestic banks to reduce the amount of NPLs. As seen in Chart 1.2, the median NPL ratio stood at 2.5% in 2019.

Maltese banks continued to operate on the back of substantial liquidity with the median liquidity coverage ratio (LCR) standing at 441.5% for all the Maltese banks, but this masked significant heterogeneity among banks, with a few banks reporting relatively weaker ratios. Chart 1.2 shows that 90% of Maltese banks have a Common Equity Tier 1 (CET1) ratio of above 15% and a leverage ratio above 4.5%.

Off-balance sheet contingent liabilities stood at around 14% of their overall balance sheet, down from 17.4% in the previous year. Such contingent liabilities mainly take the form of commitments to make loans or to extend credit.

Maltese banks’ post-tax return-on-assets decreased by 0.1 percentage point to 0.8%, with the drop in profits largely reported by branches



¹³ Source: ECB SDW

¹⁴ Source: ECB SDW

¹⁵ Source: Eurostat

generally offset by a consolidation in business by the same branches. Indeed, excluding such branches, the ROE increased from 5.6% to 6.8% indicating higher profitability.

Turning to the insurance sector, risks stemming from the domestically-relevant insurance companies remained contained as they continued to operate on the basis of ample liquidity and strong capital buffers, with an overall solvency ratio of 227.8% in December 2019. A prolonged low yield environment remains a key challenge for the insurance sector and this will continue to exert pressure on their profitability.

Similarly, the domestically-relevant investment funds remained prudent reflecting their conservative investment strategies. The key risk exposure for domestic investment funds is the potential re-pricing in global risk premia owing to heightened volatility in financial markets and uncertainty driven by geopolitical events including the uncertainty related to trade protectionism. Such events could lead to higher redemption rates, which could potentially coincide with less liquidity in the markets, hence exacerbating the risks in this sector.

Maltese banks continued to strengthen their digital security infrastructure to counter potential cyber-attacks, which could result in adverse financial and reputational losses. In 2019, one Maltese bank faced a cyber-attack, which forced it to temporarily shut down all its operations. The impact was contained and the bank took the necessary actions to restore its business in the shortest time possible, while at the same time reinforcing its cybersecurity for its infrastructure.

The mounting pressure on correspondent banking is an international phenomenon, largely reflecting the de-risking strategies of international banks due to higher regulatory standards and an increase in the associated costs for compliance with AML/CFT legal requirements. Faced with the threat of large fines and uncertain regulatory expectations, international banks are downsizing their correspondent banking services by terminating business relationships across jurisdictions, particularly small ones given their limited volumes and hence lower returns vis-à-vis the risks posed. Malta, being a small jurisdiction is affected by this global trend, together with its own domestic legacy issues. This notwithstanding, Maltese credit institutions have managed to maintain adequate channels for foreign currency transactions including those denominated in US dollars. Indeed, local banks have de-risked and are adjusting their business models to provide the necessary reassurances for this kind of business relationship. Furthermore, the Central Bank of Malta is currently investing in a payments hub to offer indirect participation to local institutions authorised and licensed by the Malta Financial Services Authority (MFSA) for the clearing of SEPA Credit Transfers (SCTs) and SEPA Direct Debits (SDDs), and later in instant payments.

In September 2019, MONEYVAL granted a period of one year for Malta to address identified shortcomings related to AML/CFT supervision and money laundering framework. The Financial Intelligence Analysis Unit (FIAU) is on course to address all MONEYVAL recommendations in time for the follow-up assessment, which is due to take place in October 2020.¹⁶ In addition, Malta's AML/CFT regime was updated in line with the Fifth Anti-Money Laundering Directive and takes into consideration the recommendations made by MONEYVAL and the Venice Commission. Furthermore, the FIAU signed Memoranda of Understanding with the Central Bank of Malta, the Accountancy Board and the Malta Gaming Authority to strengthen further coordination efforts in combatting money laundering and financial crime, and was given additional financial resources for further capacity building. In June 2020, Malta launched the Inter-Agency Committee on Countering Funding of Terrorism (ICOFT) following one of the recommendations by MONEYVAL and, going forward, a Centralised Bank Account Registry (CBAR) will be launched. This will aid Authorities to access financial information on companies and individuals in a timely manner. The Central Bank of Malta is closely following the progress made by the Authorities to address the MONEYVAL recommendations. It is important that the Authorities continue to strive to ensure that all the MONEYVAL recommendations are satisfied and implemented within the targeted timeframe.

Looking forward, a number of downside risks exist which could reinforce financial stability risks. Key economic sectors are expected to weaken in 2020 as a result of the COVID-19 spread, with adverse

¹⁶ <https://fiaumalta.org/wp-content/uploads/2020/06/Annual-Report-2019.pdf>

repercussions on the revenue generation of various companies. Some firms operating in those sectors hit by the pandemic trimmed their workweek and even laid off a number of employees, further impacting the economic growth potential. The economic shock caused by the COVID-19 pandemic is likely to weaken further banks' profitability as the positive trend in asset quality observed since 2015 is likely to be reversed, with banks needing to step up further their provisioning levels. The prolonged low interest rate environment, coupled with lower fees and commission income, as well as possible higher market funding costs amid slowdown in credit, are all expected to impact the profitability of credit institutions. At the same time, NFC leverage is likely to increase as firms will increasingly resort to borrowing from banks or the capital market as their internal funds dry up.

Property price growth in Malta, which was moderating towards the latter half of 2019, could slow down further as the real estate market was impacted by the pandemic. A significant rise in loss of jobs for foreign nationals, if prolonged, could have negative implications on the rental market and the buy-to-let property segment. At the same time, some residents could have difficulties to repay their mortgages, albeit the moratoria in place should mitigate this impact if such income losses are temporary. All these factors could lead to downward pressure on property prices, with potential implications on banks' balance sheets in terms of lower collateral values. Concurrently, credit for house purchases is expected to slow down in 2020. However, such softening could be mitigated by increased working capital lending through the various measures implemented via the Malta Development Bank, which could support employment. Meanwhile, a deterioration in asset quality – if the post-pandemic recovery turns out to be slower than expected – could trigger an uptick in the NPL ratio. While the implementation of Central Bank of Malta Directive No. 18 on moratoria helps to give breathing space to households and businesses, a slow recovery could give rise to insolvency of some non-financial corporate firms.

In turn, global equity markets have adjusted quickly, as have certain parts of the high-yield fixed income markets. The reassessment of risk premia, which materialised in the first quarter of 2020, is still prevalent owing to the increased uncertainty behind the fundamental value of underlying securities, with potential further drops going forward. Domestically, at the onset of the pandemic, the Malta Stock Exchange (MSE) index declined somewhat as investors' sentiment changed, though these losses recovered somewhat in the second quarter. Maltese banks' equity prices had dragged the index lower in the first half of 2020, but some bank equity prices have either stabilised or recovered some of the earlier losses. Governments implemented extraordinary containment measures to restrain the spread of COVID-19, thus bringing a number of sectors, most notably tourism, to a halt. They also implemented extraordinary aid packages to shore up and fight the adverse impact of the COVID-19 pandemic on their economies. Similarly, from a domestic perspective, support measures were also implemented, with the Maltese Government presenting a €1.8 billion aid package, which included wage supplements, tax deferrals, loan guarantees and increased spending to support the economy. The Government will be servicing this package through borrowing locally from the public and the financial institutions, though Government's debt level is expected to remain below 60% of GDP.

As a response to the COVID-19 outbreak, the Central Bank of Malta issued two directives. Directive No. 17 enables vulnerable bank customers to deposit "only" cheques through trusted third parties, and spelled out minimum service expectations to be provided by commercial banks and financial institutions, particularly in withdrawals and deposit of cash and cheques. Directive No. 18 outlines the provisions governing the legal moratoria on credit facilities. The Central Bank of Malta further amended Directive No. 16 on borrower-based measures by allowing more flexible conditions for residential real estate (RRE) loans to be provided while it also amended Directive No. 8 to allow for more favourable collateral requirements.

The ECB has also taken several decisions, which included the implementation of a new temporary asset purchase programme (APP) covering private and public sector securities to the tune of €1,350 billion as well as micro-prudential capital and operational relief measures, through the release of capital and liquidity buffers set aside by the banks. The measures undertaken by the ECB also include supervisory flexibility for the treatment of NPLs, guidance on applying the International Financial Reporting Standards (IFRS) 9 standard

in a way that avoids procyclical effects, restrictions in dividends distributions, and temporary easing in collateral requirements.

For more information, refer to the Special Feature on the COVID-19 spread and its implications on the financial sector's resilience.

The above is also reflected in Table 1.1, which summarises the intensity and direction of the main systemic risks for the Maltese financial system.

Table 1.1 SUMMARY OF RISKS				
Main vulnerabilities and risks for the financial system	Type of risk	Nature of risk	Change in risk level since FSR 2018	Risk assessment for 2020
Vulnerabilities within the financial system				
The level of non-performing loans	Credit	Cyclical/ Structural	↔	↑
Concentration in sectoral lending	Credit	Structural	↑	↔
Developments in bank credit	Credit	Cyclical/ Structural	↔	↑
Interlinkages between banks and the non-bank financial sector	Contagion	Structural	↔	↔
Operational risk	Contagion/Profitability	Structural	↑	↔
Domestically-relevant Insurances	Liquidity/Solvency/ Profitability	Cyclical/ Structural	↑	↑
Domestically-relevant Investment funds	Credit/Solvency/ Profitability	Cyclical/ Structural	↔	↑
Vulnerabilities outside the financial system				
Domestic macroeconomic developments	Credit/Profitability	Cyclical	↔	↑
Real estate market developments	Credit/Contagion	Cyclical	↔	↑
Exposures of the financial sector to domestic sovereign securities	Profitability	Structural	↔	↑
Economic conditions in the euro area and public debt sustainability	Credit/Profitability	Cyclical	↑	↑
Geopolitical uncertainties	Contagion	Structural	↔	↔
Prolonged low interest rate environment	Profitability	Cyclical	↑	↑
Reassessment in risk premia	Profitability	Cyclical	↔	↑
Risk position		Direction of risk		
Moderate		Increased risk	↑	
Medium		Stable risk	↔	
Elevated		Decreased risk	↓	



2. DEVELOPMENTS IN THE BANKING SECTOR

2. DEVELOPMENTS IN THE BANKING SECTOR

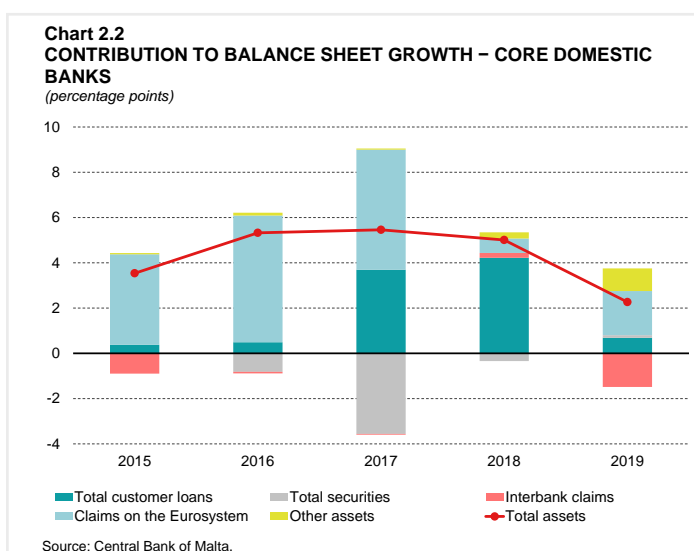
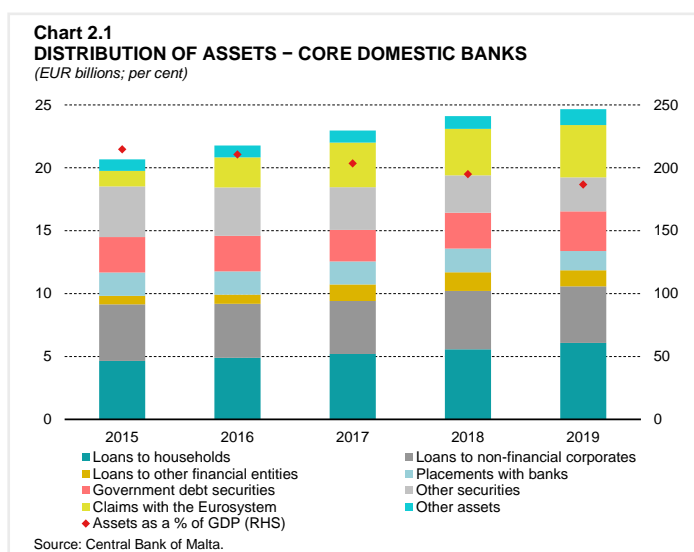
2.1 Core Domestic Banks

The balance sheet of the core domestic banks grew by 2.3%, with assets reaching 186.7% of GDP. This ratio was 8.3 percentage points lower compared to a year ago, primarily since Malta's GDP expanded at a faster pace than these banks' assets (see Chart 2.1). This group of banks became even more focused on domestic business activities, as their foreign assets declined to just over a quarter of their balance sheet. More than half of the latter were invested in debt securities, mainly foreign government paper and bank bonds. Another fifth of foreign assets consisted of placements with other foreign MFIs with the rest mainly in non-resident customer loans.

In line with previous years, placements with the central bank were again one of the main contributors behind the growth in assets, reflecting the abundance of liquidity in the banking system. These increased by 12.7% to around 17% of assets (see Chart 2.2). At around 48% of assets, customer loans remained the largest asset component on these banks' balance sheet. The expansion in the loan book was largely driven by resident loans, mainly mortgages, as otherwise growth in resident consumer loans and lending to NFCs was weak.

Although gross value added grew by around 7.5%, largely in service-oriented sectors, lending to resident corporates was more mute, in line with the slowdown reported in the Bank Lending Surveys (BLS) carried out in 2019 (see Box 1). This can in part be explained by the continued increase in corporate bond issuance which rose by 21.3% to €1.6 billion in 2019 from €1.3 billion the previous year, and in some instances through the drawdown of deposits by some sectors.¹ In fact, overall borrowing including bond issues increased over the previous year. In addition, intragroup funding rose by 8.0%. All these factors suggest that some corporates were in part substituting bank funding with alternative financing resources. At 31.5%, corporate leverage continued to decline with the consolidated debt to firms' financial assets standing slightly below the euro

¹ During 2019, the gross issue of corporate and bonds issued on Prospects MTF amounted to €309 million, of which 12 new issues were of corporate bonds (€266.1 million) and 10 new issues of Prospects bonds (€42.9 million). Considering also the redemptions and buy-backs that occurred during 2019, the net increase amounted to €279.7 million (21.3%) when compared to 2018.



area average (see Chapter 1). The weakening in non-resident lending persisted as some banks continued with their de-risking strategies.

In terms of the banks' investment portfolio, after declining for four consecutive years, holdings of debt securities increased marginally, mainly owing to higher holdings of foreign sovereign paper. On the other hand, interbank claims declined by almost a fifth in 2019 to just 6.2% of total assets. Other assets, including fixed and intangible assets, grew by 23.7%, but still accounted for a relatively minor share of the balance sheet.

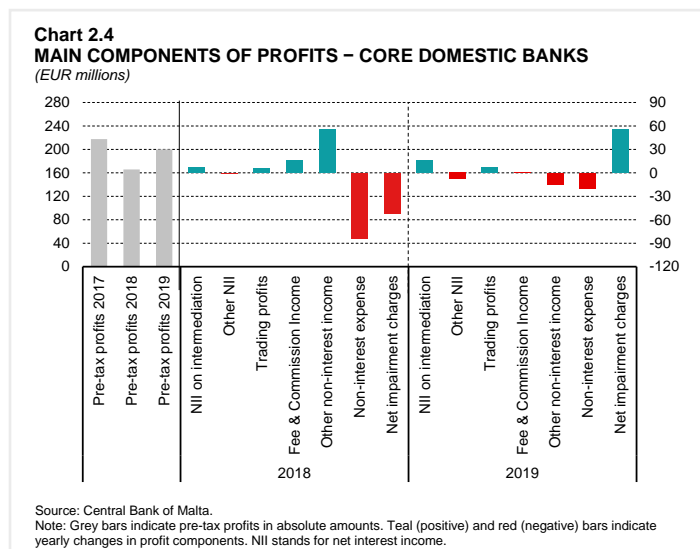
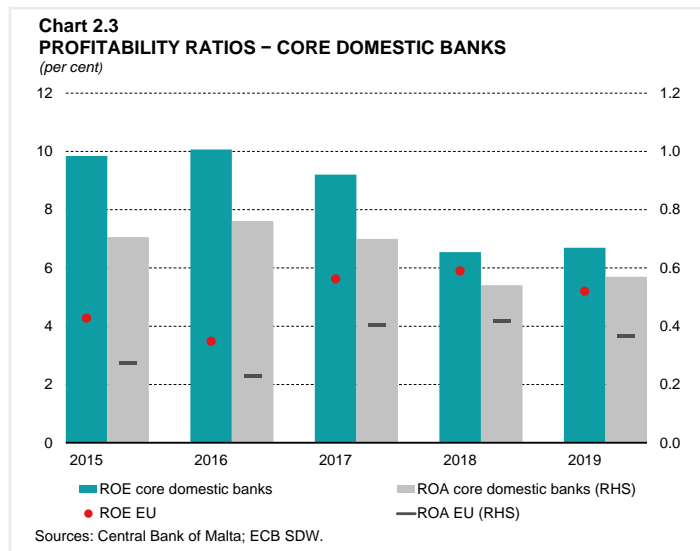
2.1.1 Profitability

The profitability of core domestic banks improved in 2019, with pre-tax profits rising by just over 20% to €200 million. Consequently, the post-tax ROE and ROA increased by 0.15 and 0.03 percentage point to 6.7% and 0.6%, respectively, surpassing the EU averages of 5.2% and 0.4% (see Chart 2.3).² However, this improvement masked the effect of one bank's provisions in 2018 to cover legal risks, which were comparatively lower in 2019. Adjusting for these provisions, pre-tax ROA would have remained stable at 0.9% while pre-tax ROE would have narrowed by 1.6 percentage points to 10.8%.

Growth in net interest income (NII) accelerated in 2019, up by around 2% to account for almost two-thirds of gross income (see Chart 2.4). This was entirely attributable to greater intermediation activities as otherwise interest margins narrowed. The weighted average interest rate on loans fell by 0.2 percentage point to 3.6% while that of deposits remained relatively unchanged at 0.3%. Thus banks were supported by greater volumes resulting from the buoyant economic activity noted earlier, which completely offset the drop in interest rate margins.

Other NII contracted by 16.7%, predominantly due to lesser income from securities which more than offset the decline in interest payable on outstanding bonds.

During 2019, core domestic banks reported a significant decline in net impairment losses, which dropped from €56.1 million in 2018 to €0.8 million in 2019, mainly reflecting lower bad debts written off and a corresponding reversal of provisions related to these bad debts. Taking into account this reversal, non-interest income would have increased by around 20% in 2019.



² Source: ECB SDW.

Trading profits contributed positively to growth in non-interest income, reflecting favourable fair value (FV) movements on their financial assets. At the same time, banks reported higher dividend income from subsidiaries. Meanwhile, income from fees and commissions remained generally stable, but at 53.3%, still accounted for the bulk of non-interest income.

Non-interest expenses rose by 4.9% due to higher staff expenses and other operating expenses mainly related to the upgrading of some banks' IT core systems coupled with additional outlays to strengthen their risk management and Anti-Money Laundering (AML) frameworks.

The operational cost-to-income ratio deteriorated to 66.1% in 2019 as operating expenses increased while gross income declined marginally. This ratio is broadly in line with the EU average of 64%.

2.1.2 Asset Quality

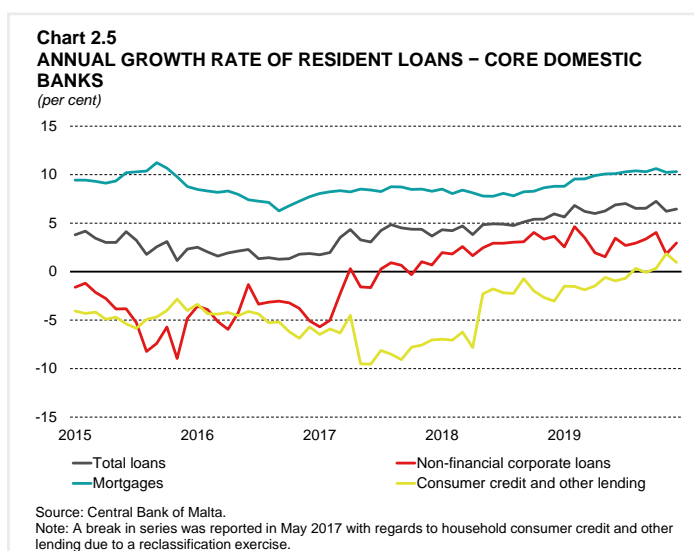
The loan portfolio

In line with their prudent business models, core domestic banks engaged primarily in intermediation, with almost 90% of their loan book channelled towards residents. Meanwhile, non-resident customer loans fell by 28.2% in 2019 due to lower participation in syndicate lending.

Growth in resident credit gathered momentum, driven by resident household lending which grew by 9.4%. The upward trend in mortgage lending persisted in 2019, rising by 10.3% compared to 8.8% in the previous year (see Chart 2.5). Consequently, the share of resident mortgages increased by a further 1.8 percentage points to 51.3% of resident loans. Such developments mirrored the benign domestic economic environment accompanied by favourable housing market prospects. Despite the high exposure towards resident mortgages, banks continued to adopt prudent lending practices. Indeed, although the median loan-to-value (LTV) ratio for RRE lending rose by 2.7 percentage points, this still remained contained at around 80%. Similarly, the median loan-service-to-income (LSTI) and the loan-to-income (LTI) ratios stood at 22.7% and 4.4 times the annual income, respectively with a median maturity term of 30 years.³

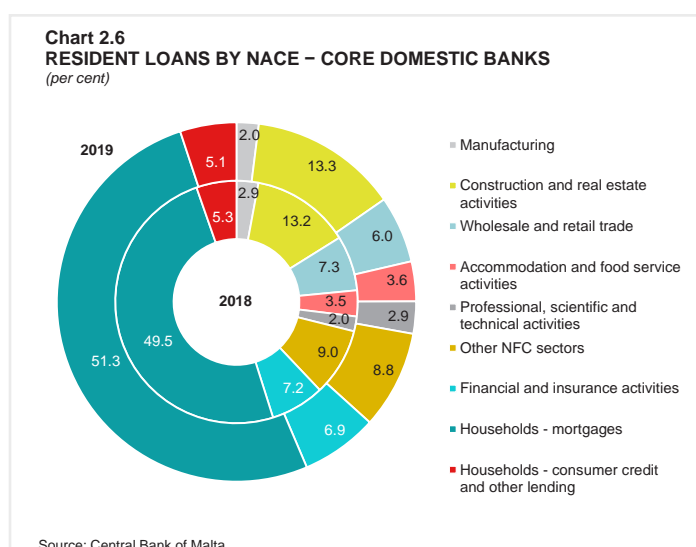
Meanwhile, resident consumer credit expanded by 1.0% in 2019, following a contraction of 3.1% reported in 2018.

Lending to resident NFCs continued to grow, yet at a more moderate pace than in 2019. Such credit went up by 3.0% in 2019 compared to 3.7% a year earlier. Lending to private NFCs also grew by 3.0%, compared to 3.7% in 2018, while lending to public sector NFCs grew by 2.4%, 0.6 percentage point lower than in the previous year. The increase in lending was channelled towards the professional, scientific and technical activities, construction and real estate sectors, and administrative and support services activities. Resident



³ Data are based on a sample of new loans for house purchases from a quarterly survey carried out by the Central Bank of Malta.

lending towards the former sector rose by 56.3%, mainly driven by one core domestic bank's lending towards head offices, business and other management consultancy activities. Nevertheless, the share of resident professional, scientific and technical activities in overall resident lending remained limited to 2.9% (see Chart 2.6). Although lending to construction and real estate grew by 7.6%, its share in resident lending increased marginally to 13.3%. Conversely, resident lending to the wholesale and retail trade, and manufacturing sectors declined.



BOX 1: BANK LENDING SURVEY RESULTS¹

The quarterly BLS carried out by the ESCB provides qualitative information on banks' lending conditions, developments in the past three months, and expectations of banks in relation to loan supply and demand for enterprises and households.² In the 2019 edition, the surveys also asked a number of *ad hoc questions* relating to the banks' access to retail and wholesale funding, the impact of new regulatory or supervisory requirements, the effect of the ECB's expanded asset purchase programme (APP), the ECB's negative deposit facility rate and the effect of NPLs on the banks' lending policies. Across the euro area, 144 banks participated in the 2019 survey rounds, of which four were Maltese banks, which together accounted for about 91% of total resident bank credit.³

The Box covers bank lending developments that occurred during 2019. The surveys were run prior to the intensification of COVID-19's spread, and hence replies reflect perceptions prior to the onset of the pandemic. Meanwhile, the latest round of the BLS that was carried out during April 2020 sheds some light on the lending developments during the coronavirus outbreak.

Credit supply conditions

As in previous years, domestic participant banks reported that they maintained their credit standards on loans to enterprises unchanged at tight levels during 2019 (see Chart 1). Similarly such credit standards were kept stable in the first quarter of 2020, with the majority of the domestic BLS banks expecting them to remain unchanged over the second quarter of 2020. In the euro area, although competition from banks continued to have an easing impact on lending standards, overall corporate credit standards tightened marginally during 2019 as a result of higher risk perceptions related to the general economic outlook and industry or firm-specific situations and to a lower extent due to the impact of euro area banks' capital position.

¹ This Box was prepared by Ariana Bartolo, an Economics Officer within the Financial Stability Surveillance and Research Department of the Central Bank of Malta. Any errors and views expressed in this box are the author's sole responsibility.

² Supply conditions include credit standards and terms and conditions. Credit standards refer to the bank's internal guidelines or loan approval criteria, established prior to the actual loan negotiation. These specify the required borrower characteristics such as income levels, age and employment status which banks consider in their credit scoring methods. Credit terms and conditions refer to the conditions of a loan that a bank is willing to grant, namely the interest rate, loan size, fees, collateral requirements, maturity terms and other conditions.

³ The BLS data for all euro area countries are published on the ECB's SDW.

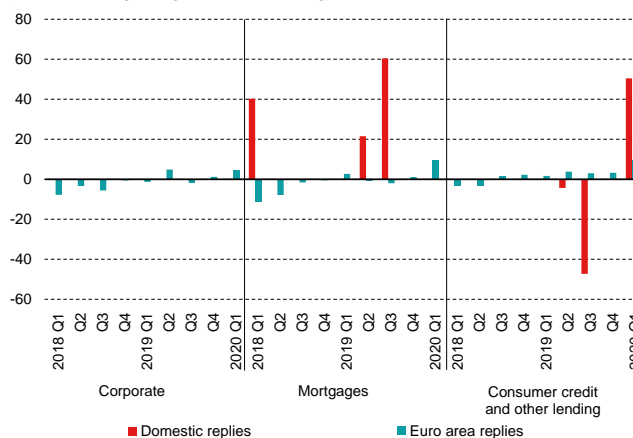
In 2019, domestic BLS banks kept their overall corporate credit terms and conditions stable (see Chart 2). Nonetheless, the margins on average loans to enterprises narrowed further, particularly due to pressures from competition. All the domestic participating banks kept their corporate credit terms and conditions unchanged during the first quarter of 2020.

On the other hand, euro area banks reported some tightening of the overall corporate terms and conditions due to increased banks' funding costs, balance sheet constraints and heightened risk perceptions, which also resulted in wider margins for riskier loans. However, some factors such as competitive pressures continued to have an easing impact attenuating somewhat the tightening effect and resulting in some narrowing of margins on average loans to enterprises throughout the year.

Mortgage credit standards as reported by domestic participating banks tightened during the second and third quarters of 2019, owing to the introduction of the Central Bank of Malta (CBM) Directive No. 16 on regulation of Borrower-Based Measures (BBM) (see Chart 1).⁴

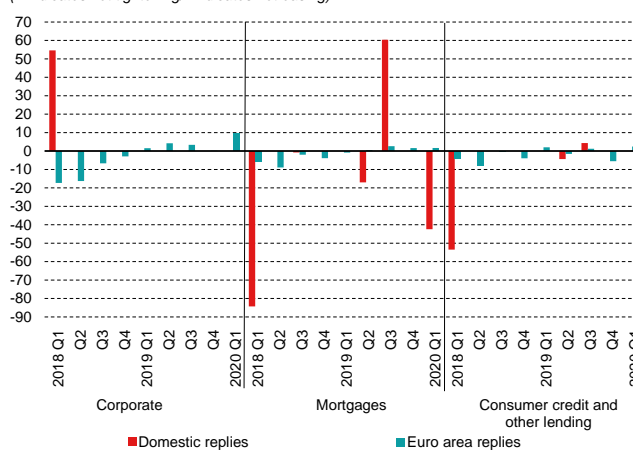
These thereafter remained unchanged in the last quarter of 2019 and in the first quarter of 2020, with expectations that domestic banks will maintain these unchanged also in the second quarter of 2020. Similarly, overall credit terms and conditions for mortgages tightened in 2019, driven by developments reported during the third quarter of 2019 as half of the domestic respondents tightened their LTV ratio, loan size limits and the term-to-maturity to bring them in line with the recently-introduced BBM (see Chart 2). This tightening was partly offset by easing in the margins for both average and riskier loans. Yet, domestic lending rates for mortgages remained higher than those of the euro area, at around 3% and 2%, respectively.⁵ Some easing effect was also reported in the second quarter as

Chart 1
CREDIT STANDARDS
(+ indicates net tightening/- indicates net easing)



Sources: ECB; Central Bank of Malta calculations.

Chart 2
CREDIT TERMS AND CONDITIONS
(+ indicates net tightening/- indicates net easing)



Sources: ECB; Central Bank of Malta calculations.

⁴ <https://www.centralbankmalta.org/centralbankofmaltdirectives>

⁵ Source: The figure for Malta's mortgage interest rate is from BR06 data. The euro area figure is from the ECB's SDW. Figures are reported as at March 2020.

one bank eased its mortgage credit terms and conditions due to higher competitive pressures and higher risk tolerance. During the first quarter of 2020, the majority of domestic respondents kept their terms and conditions for mortgages stable, with only one bank reporting some easing on the back of narrower loan margins on average loans owing to higher competitive pressures.

Euro area banks reported some offsetting developments in mortgage credit standards resulting in an overall stable position (see Chart 1). Although pressures from competition continued to be the main factor contributing to the easing of mortgage credit standards – particularly in the second and third quarters of 2019 – this was offset by some tightening arising from funding costs and banks' risk tolerance particularly in the first and last quarters of 2019. Mortgage credit terms and conditions meanwhile tightened slightly in 2019, partly reverting the easing reported in the previous year (see Chart 2). This was mainly due to pressures from funding costs, balance sheet constraints and banks' risk tolerance, together with a tightening of margins for riskier loans. Euro area banks' margins on average loans meanwhile eased slightly, partly offsetting the tightening effect on riskier loans.

After two years of stable credit standards for consumer credit and other lending to households, domestic banks eased such standards during the second and – to a much higher extent – in the third quarter of 2019 (see Chart 1). The latter, however, reflected increased limits on unsecured lending by one domestic participant bank. Such standards remained stable in the last quarter of 2019. During the first three months of 2020, one domestic BLS bank reported some tightening as it reduced the limits on unsecured lending in response to the economic impact of the COVID-19 pandemic. Meanwhile, another domestic BLS bank was expecting to ease its credit standards for consumer credit in 2020 Q2 to support its customers mostly affected by the COVID-19 pandemic. Meanwhile, the tightening reported by euro area banks persisted in 2019, mainly owing to a lower risk tolerance by banks in line with higher risk perceptions related to the general economic environment.

Domestic banks' credit terms and conditions on consumer credit and other household lending were on average kept unchanged during 2019, with one domestic surveyed bank reporting offsetting results in the second and third quarters of the year (see Chart 2). The higher credit limits reported during the second quarter of 2019 – on the back of increased competitive pressures and higher risk tolerance – were later tightened owing to the introduction of Central Bank of Malta Directive No. 16 in the third quarter of 2019, which impacted the size of loans and term-to-maturity.⁶ Meanwhile, during the first quarter of 2020, all domestic participating banks kept their consumer credit terms and conditions unchanged.

On the other hand, euro area banks eased their overall terms and conditions on new consumer credit and other household lending, mainly on the back of competitive pressures which resulted in narrower spreads on average loan margins.

Credit demand conditions

Domestically, a drop in corporate credit demand was observed during 2019, reflecting lower fixed investment and working capital requirements coupled with competitive pressures from other banks (see Chart 3). Meanwhile, in the first quarter of 2020, two domestic BLS banks reported offsetting replies as a result of the COVID-19 outbreak. One domestic BLS bank indicated an increase in corporate credit demand as enterprises experienced higher working capital requirements, while another reported a fall in such demand due to lower fixed investment on the back of heightened uncertainties and market disruptions. Nonetheless, all domestic participant banks expect their demand for corporate

⁶ Central Bank of Malta Directive No. 16 may have to some extent impacted the provision of consumer credit and other household lending since in some instances additional loans, such as for example to purchase furnishings, were granted in combination with mortgage loans, having the same conditions. These are now granted as a personal loan.

loans to increase during the second quarter of 2020 to finance higher working capital requirements.

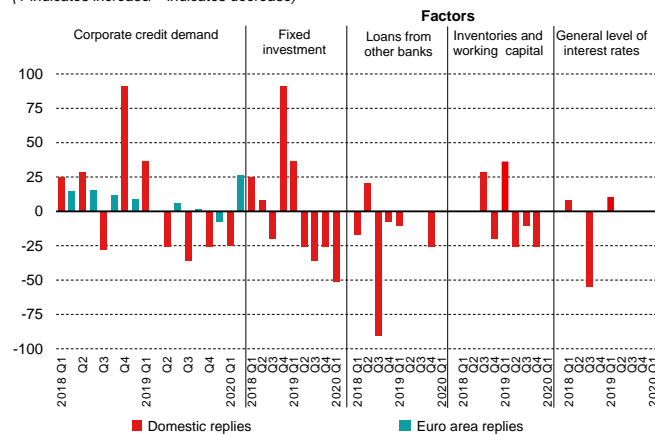
In the euro area, although overall corporate credit demand for the first three quarters of the year remained positive on the back of the general level of interest rates, mergers and acquisitions and fixed investment, a downward trend was observed in the last quarter of 2019 for both large, and small and medium size enterprises. This was due to lower financing needs, especially due to the availability of firms' internal funds and debt securities issuance.

After reporting higher demand for mortgages during the first quarter of 2019, domestic BLS banks reported a significant drop in demand in the second half of 2019 (see Chart 4). This reflected the stricter regulatory and fiscal regime including the newly-introduced regulatory BBMs. Housing market prospects, competitive pressures and – to a lower extent – consumer confidence also contributed to lower demand for housing loans in the second half of 2019.

Furthermore, during the first three months of 2020, the majority of domestic BLS banks reported a fall in demand for loans for house purchases owing to uncertain housing market prospects and lower consumer confidence owing to the pandemic. Expectations for the second quarter of 2020 show that all the domestic BLS banks are anticipating a further decline in the demand for mortgages, as a result of ongoing repercussions from the COVID-19 spread.

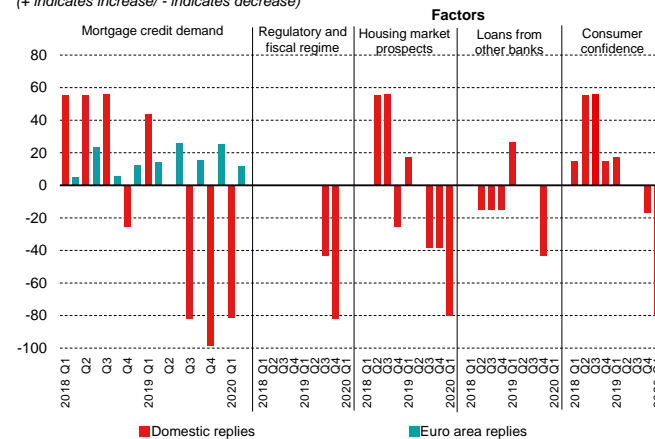
On a pan-European front, similar to previous years, euro area banks' net demand for housing loans strengthened further mainly on the back of the low level of interest rates, favourable housing market prospects and consumer confidence. Other financing needs including debt refinancing/restructuring and the regulatory and fiscal housing market regime also had a positive impact.

Chart 3
CORPORATE CREDIT DEMAND
(+ indicates increase/ - indicates decrease)



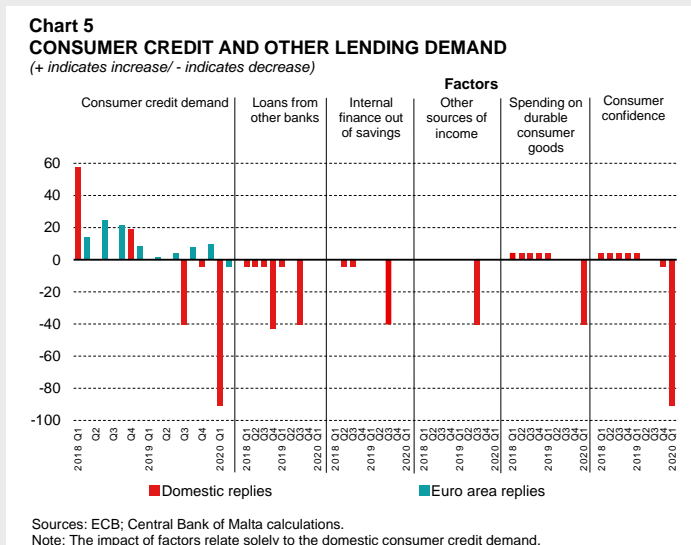
Sources: ECB; Central Bank of Malta calculations.
Note: The impact of factors relate solely to the domestic corporate credit demand.

Chart 4
MORTGAGE CREDIT DEMAND
(+ indicates increase/ - indicates decrease)



Sources: ECB; Central Bank of Malta calculations.
Note: The impact of factors relate solely to the domestic mortgage credit demand.

Domestic BLS banks have reported largely unchanged overall demand for consumer credit and other lending to households during 2019, with the exception of two banks which reported lower demand in the third and fourth quarters (see Chart 5). This was mainly owing to competitive pressures and the use of alternative finances particularly via internal savings. During the first quarter of 2020, half of the respondents reported a fall in the demand for consumer credit due to a drop in consumer confidence and lower spending on durable consumer goods in response to the COVID-19 pandemic. Although this fall was expected to continue over the second quarter of 2020, one domestic BLS bank reported an expected recovery in its demand for consumer credit and other lending, linked with its intention to ease related credit standards.



In contrast, demand for consumer credit and other household lending in the euro area increased throughout the year, though still below the level reported in 2018. The low level of interest rates, consumer confidence and increased spending on durable goods all had a positive impact on consumer credit demand in the euro area.

Ad hoc questions

During 2019, Maltese participant banks reported increased access to retail funding largely from higher inflows of short-term deposits and to a lesser extent from long-term deposits. Meanwhile, access to wholesale funding remained generally stable for the majority of domestic banks. While the COVID-19 pandemic did not impact domestic banks' retail funding during the first quarter of 2020, two domestic participant banks reported a deterioration in their very short-term money market, with one of these banks anticipating a further deterioration in its interbank unsecured money market in the second quarter of 2020.

On their part, euro area banks indicated that their access to wholesale funding improved during 2019, predominantly on the back of higher issuance of medium- to long-term bonds. Access to securitisation, retail funding and unsecured interbank money market all improved for euro area banks during 2019.

With regards to the impact of the new regulation on domestic banks' lending behaviour, in the first half of the year one domestic BLS bank reported an increase in its risk-weighted assets on account of both average and riskier loans as a result of the Capital Requirements Regulation (CRR).

Meanwhile, euro area banks reported that new regulatory or supervisory requirements led to a strengthening of their capital position, and an increase in total assets and liquid assets. Euro area banks' risk-weighted assets also rose – driven entirely by increased lending. Moreover, while funding conditions eased slightly, the euro area banks' credit standards and credit margins tightened across all loan categories in 2019.

Survey results covering the period from the last quarter of 2018 up to the third quarter of 2019 show that the ECB's expanded APP did not impact the domestic participant banks' assets, liquidity buffers, market financing conditions, profitability and capital position. Their lending policies and volumes were also not affected by the impact of the APP. Meanwhile, during the last quarter of 2019 and first quarter of 2020, one domestic participant bank reported that the APP and the Pandemic Emergency Purchase Programme (PEPP) contributed to lower total assets, whereby the volume of euro area sovereign bond holdings fell. This bank anticipated a further decline in its total assets but an improvement in its liquidity position during the second and third quarters of 2020, while the majority of the domestic BLS banks anticipated no changes in relation to their assets, liquidity position, profitability and capital position.⁷ Meanwhile, euro area banks reported that the APP contributed to an improvement in their market financing conditions and liquidity positions, but led to a deterioration in their profitability as net interest margins narrowed. Furthermore, the APP continued to have a net easing impact on credit standards particularly on household loans and terms and conditions of all loan categories. Euro area banks indicated a positive impact on their lending volumes for both enterprises and housing loans.

The ECB's negative deposit facility rate (DFR) contributed somewhat to a decline in the profitability of most domestic respondents, as reflected by lower NII. However, this decline was attenuated following the ECB's introduction of a two-tier system in October 2019, with the majority of the domestic participating banks indicating that such system was beneficial for their profitability. Meanwhile, one of the domestic BLS banks noted a decline in its profitability due to lower NII and market financing conditions. One of the domestic BLS banks reported a drop in its lending rates for all loan categories resulting in narrower interest rate margins but higher lending volumes owing to the negative DFR. Furthermore, during the April 2020 round, covering developments during the last quarter of 2019 and first quarter of 2020, some domestic BLS banks also reported a decline in their retail deposit rates.⁸

Similarly, euro area banks' NII fell, together with a decrease in their lending rates and loan margins for both enterprises and household loans. This was partly offset through a positive impact on their non-interest rate charges and lending volumes for all the types of loans. In the April 2020 BLS round, euro area banks reported a negative impact of the DFR on deposit rates, with some respondents trying to compensate for the negative rates via higher non-interest rate charges on deposits. Euro area banks indicated that the two-tier system had a positive impact on their profitability and – to a much lower extent – on their liquidity position and market financing conditions. In addition, euro area banks reported that lending rates across loan categories declined, while deposit rates for both enterprises and households rose following the introduction of the two-tier system.

With regards to the impact of non-performing loans, the majority of the domestic BLS banks did not report any changes related to their lending policies, although one of the reporting domestic banks reported some easing of credit standards for mortgages during the first half of 2019 on the back of strong economic growth. Throughout 2019, euro area banks meanwhile reported a tightening of their credit standards for all loan categories, and terms and conditions – particularly for corporates and consumer credit and other lending to households when considering the impact on their NPL ratio.

⁷ During the April 2020 round, the survey question on the impact of the ECB's APP was amended to include the direct and indirect effects of both the APP and the PEPP, following the COVID-19 pandemic.

⁸ In the April 2020 round, banks were asked for the first time to indicate the DFR impact on deposits held by corporates and households. Also, BLS banks were asked to assess the impact of the ECB's two-tier system on their profitability, lending and deposits, compared with the situation without a two-tier system.

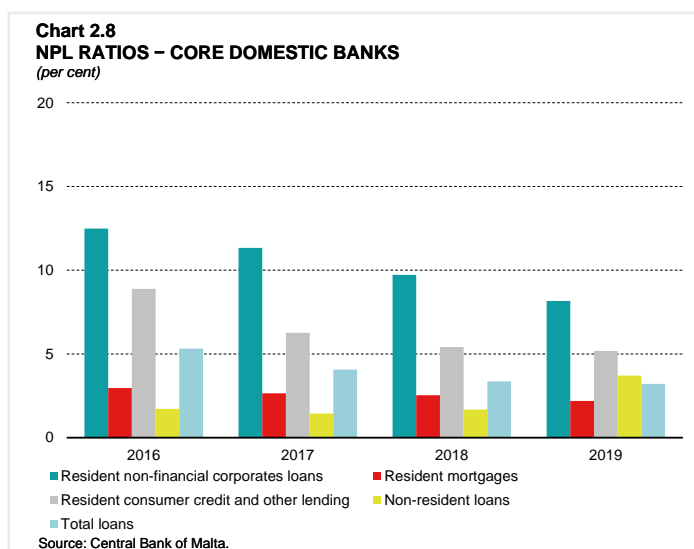
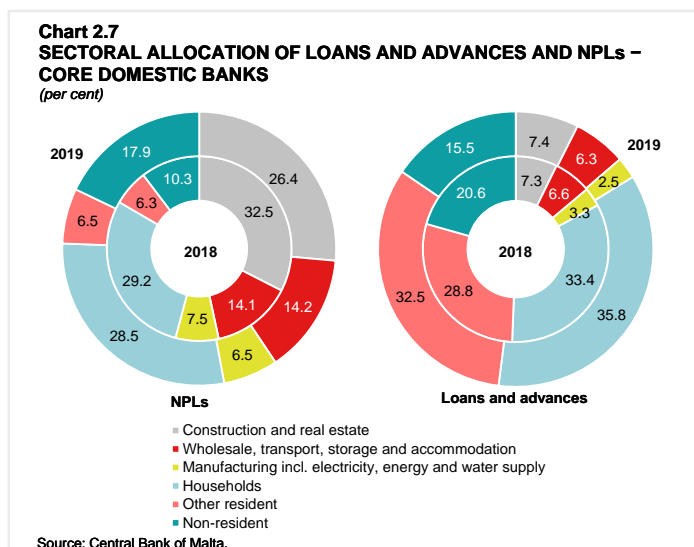
Non-performing loans

NPLs declined by 2.5% in 2019, entirely attributed to improvements in the resident loan portfolio. Resident NPLs accounted for 82.1% of overall NPLs with non-resident NPLs accounting for the remainder (see Chart 2.7). Resident corporate NPLs fell by about 13%, mainly in the construction and real estate sector. In light of this, their share dropped by 6.1 percentage points to 26.4% of overall NPLs in 2019. Meanwhile, resident household NPLs dropped by 4.8% reflecting declines in both non-performing mortgages and consumer credit, down by 4.0% and 7.5%, respectively to represent 28.5% of overall NPLs.

The drop in NPLs was in part due to legacy loans, with NPLs that have been non-performing for more than 90 days declining, including those of over five years. Meanwhile, the increase in non-resident NPLs mainly reflected those loans that are unlikely to pay but past due for less than 90 days.

The core domestic banks' overall NPL ratio improved marginally to 3.2% in 2019 (see Chart 2.8).⁴ The resident NPL ratio narrowed by 0.7 percentage point to 3.1%, with improvements primarily reflected in the NPL ratio for resident NFC loans, which dropped by 1.6 percentage points to 8.2% in 2019. The NPL ratio for resident household lending improved by 0.4 percentage point to 2.6%, indicating positive developments in both resident mortgages and consumer credit, with their NPL ratio declining to 2.2% and 5.2% in 2019, down from 2.5% and 5.4% a year earlier, respectively. In contrast, the non-resident NPL ratio rose from 1.7% in 2018 to 3.7% in 2019, on the back of higher outstanding non-resident NPLs and a decline in the volume of non-resident loans.

The core domestic banks managed to expand their balance sheet while also improving their risk profile. In this regard, the share of total risk-weighted assets (RWA) to total assets declined from 48.5% in 2018 to 46.1% in 2019 (see Chart 2.9). RWA declined by 2.9% while the banks' balance sheet grew further. Credit risk improved on the back of lower RWA attributed to loans secured by mortgages on immovable property, as well as credit risk related to institutions and other exposures. Nevertheless, credit risk exposures still accounted for the bulk of RWA. Risks arising from credit valuation adjustments also contributed positively to lower RWA, however to a much lower extent, remaining negligible as a share of total RWA. On the other hand,

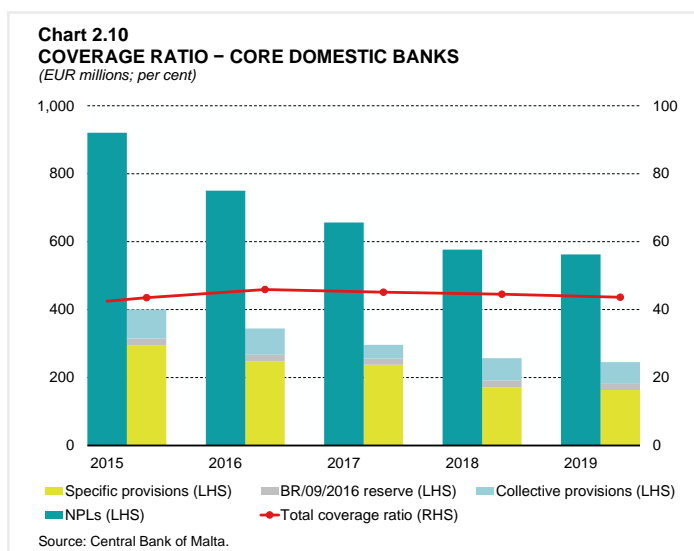
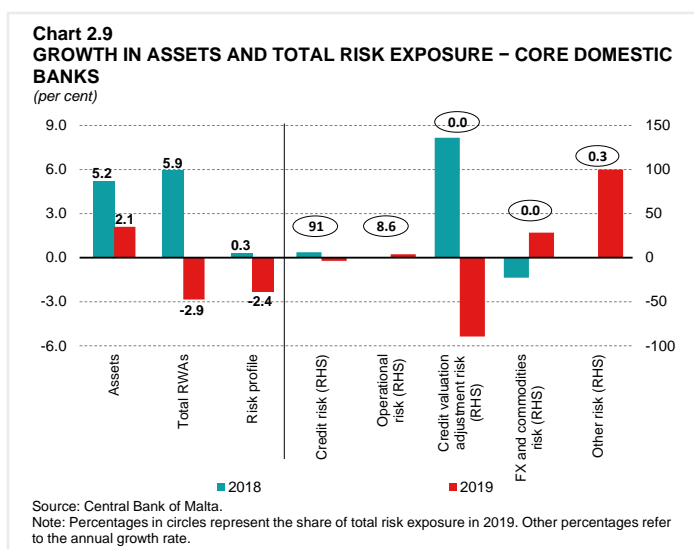


⁴ The NPL ratio stood above the EU banks' average NPL ratio of 2.7% (as at 2019 Q4). Source: European Banking Authority (EBA) Risk Dashboard.

RWA allocated for operational risk rose by 3.9% to account for 8.6% of total RWA, while foreign exchange and commodities risks, and other risk types, also increased while remaining minimal in the composition of RWA.

Loan loss provisions

The core domestic banks' coverage ratio narrowed by 0.9 percentage point to 43.7% mainly on the back of lower specific provisions which pushed down the specific coverage ratio to 29.0% in 2019 (see Chart 2.10). Moreover, collective provisions covering non-performing loans also declined, contributing to around 11 percentage points of the total coverage ratio. The "Reserve for General Banking Risks", as per Banking Rule 09/2019, rose by 2.2%, adding another 3.6 percentage points to the overall coverage ratio. Meanwhile, core domestic banks continued to rely on collateral as a credit risk mitigating mechanism, with real estate representing 87.0% of collateral. In 2019, the amount of collateral backing NPLs dropped by around 20% with the ratio of collateral backing total NPLs narrowing by 11.3 percentage points to around 53%. As a result, when considering collateral together with provisions, NPLs are almost completely covered.



The securities portfolio

At €5.8 billion, the securities portfolio accounted for almost a quarter of the banks' balance sheet. The expansion in the investment portfolio emanated from both higher bond and equity holdings, which rose by 0.3% and 2.2%, respectively. Furthermore, core domestic banks' allocation between bonds and equity remained very similar to that of the previous year, with bonds accounting for about 92% of the overall securities portfolio. The increase in equities was driven primarily by one bank which invested more heavily in equities of resident public sector NFCs.

Holdings of domestic debt securities rose by 2.2%, reflecting increased holdings of Malta Government Stocks (MGS) which accounted for just over a quarter of debt securities (see Chart 2.11). Holdings of domestic corporate and bank bonds also rose but remained limited to 1.6% and 0.2% of the overall debt securities portfolio, respectively.

Meanwhile, holdings of foreign debt securities contracted by 0.5% but nevertheless accounted for around 71% of the debt securities portfolio. Core domestic banks shed some of their holdings in UK banks, but at 23.8% foreign bank bonds still remained an important element in the bond portfolio. Holdings of foreign sovereign debt, mainly of euro area governments, increased by around a fifth to €1.7 billion pushing their share

in the bond portfolio by 5.0 percentage points to 30.7%.

Bonds booked at fair value through other comprehensive income (FVOCI) increased by almost 15% to represent 35.3% of debt securities. Despite decreasing by 6.0%, debt securities listed at amortised cost (AMC) still continued to represent the largest share accounting for 64.1% of all debt securities. The remaining bonds were designated at fair value through profit and loss (FVTPL) which declined by 13.7% during 2019.

Securities' asset quality

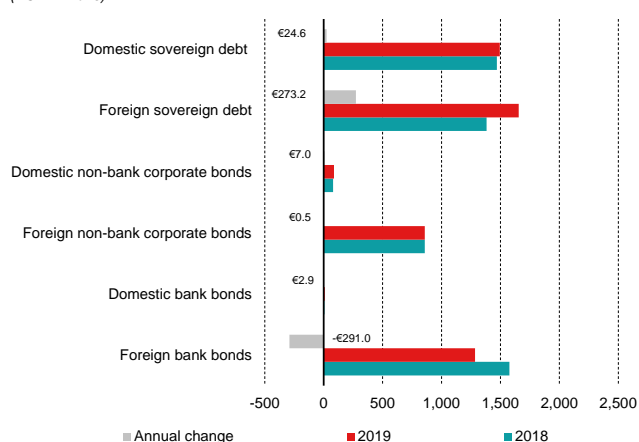
The ratings composition of the bond portfolio improved in 2019 as holdings of high-rated bonds rose by around 16% to account for just above 43% of the bond portfolio (see Chart 2.12). Meanwhile the share of medium-rated bonds fell by 2.2 percentage points to 43.9%, but continued to account for the largest portion of the bond portfolio. Low-rated and unrated investment grade bonds also fell, by 14.3% and 25.0%, respectively. As a result, the share of low-rated bonds of total securities dropped from 4.4% in 2018 to 3.8%, while that of unrated investment grade bonds fell from 12.4% in 2018 to 9.3%. Moreover, core domestic banks did not record any non-performing securities and consequently their non-performing exposures (NPE) ratio improved slightly to 2.5%.⁵

2.1.3 Funding and Liquidity

Customer deposits

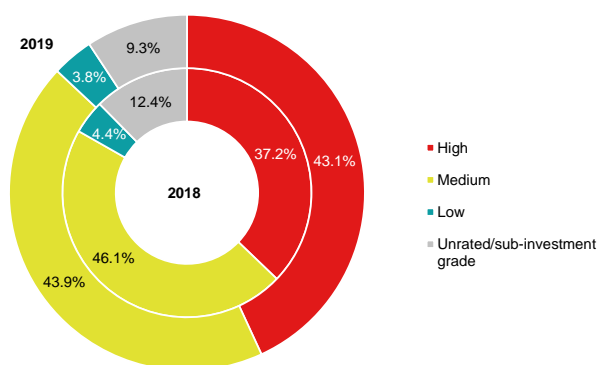
Customer deposits remained the preferred funding source for core domestic banks, financing just over 80% of assets in 2019. Although slowing down somewhat compared to the previous year, customer deposits rose by 3.6% exclusively from residents (see Chart 2.13). This increase in resident deposits was mainly driven by house-

Chart 2.11
BOND PORTFOLIO – CORE DOMESTIC BANKS
(EUR millions)



Source: Central Bank of Malta.

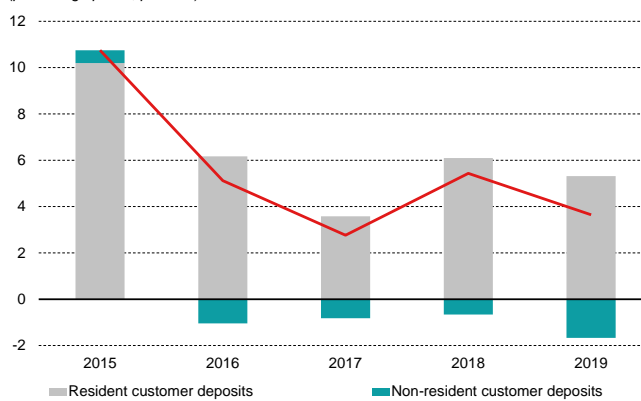
Chart 2.12
BOND HOLDINGS BY RATING – CORE DOMESTIC BANKS



Source: Central Bank of Malta.

Note: Investment-grade bonds carrying a rating of AA- or above are regarded 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+. Sub-investment grade bonds are rated lower than BBB-.

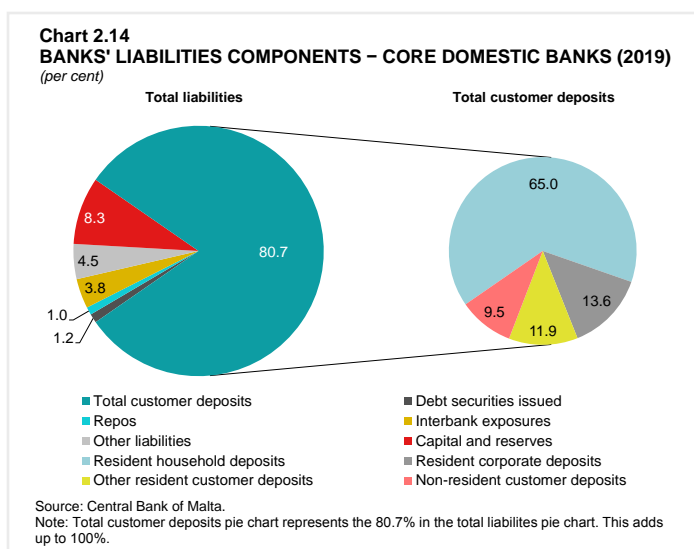
Chart 2.13
CONTRIBUTION TO GROWTH IN CUSTOMER DEPOSITS – CORE DOMESTIC BANKS
(percentage points; per cent)



Source: Central Bank of Malta.

⁵ Non-performing exposures include defaulted loans and securities as a share of total loans and securities.

hold deposits which rose by 7.3% and accounted for more than half of the balance sheet size, and almost two-thirds of the overall customer deposits, despite the marginal decline in the weighted average interest rate (see Chart 2.14). Otherwise, deposits from resident private NFCs declined for the second consecutive year, down by 2.9% to 13.6% of the overall customer deposits. This drop was, however, bank specific as generally resident deposits by private NFCs continued to flow in. Meanwhile, other resident customer deposits grew by 10.2% to represent almost 12% of customer deposits, reflecting higher inflows from other financial institutions (OFIs) and financial auxiliaries (FAs), captive financial institutions and money lenders (CFIML), the general government, insurance corporations and pension funds (ICPFs), and public NFCs.⁶



Although some banks started to tap non-resident customer deposits, overall these declined by 14.5% over the previous year due to lower deposits from OFIs and FAs, CFIML, followed by private NFCs and households to a lower extent. As a result, the share of non-resident customer deposits contracted from 11.5% in 2018 to 9.5% in 2019 of total customer deposits, financing less than 8% of the core domestic banks' assets.

Retail customers' preference for short-term liquid assets persisted as demand deposits went up by 1.6 percentage points to around 78% of the total deposits. Meanwhile, the share of fixed-term deposits with a maturity of up to 12 months declined by 1.3 percentage points to 14.3% of deposits while those with a term-to-maturity exceeding one year remained stable at 7.8% of all customer deposits in 2019. Euro-denominated deposits remained the most popular, representing 90.9% of all customer deposits in 2019, while foreign currency denominated deposits remained limited and were mostly denominated in US dollar and Pound Sterling.

Eurosystem and wholesale funding

By the end of 2019, core domestic banks did not have any outstanding monetary policy operations, following the repayment of a TLTRO II by one bank.

The central bank-eligible Counter Balancing Capacity (CBC), defined as the stock of unencumbered assets or other funding sources which are available to cover potential funding gaps, rose by 3.2% to €3 billion. This represented 12.4% of the balance sheet, up from 12.2% in the previous year. This is indicative of the funding space available in times of liquidity stress, with the central bank-eligible share of CBC amounting to 1.4 times the total LCR net cash outflows, suggesting that these banks can on aggregate survive around 40 days of net cash outflows in a stressed scenario. In addition, central bank-eligible CBC as a share of total covered deposits under the Depositor Compensation Scheme (DCS) narrowed by 1 percentage point to 25.8% by end 2019. At bank level, there are wide divergences with the ratio spanning from a low of 6% to almost 60%.

⁶ 'Other resident customer deposits' include deposits from the general government, ICPFs, monetary financial institutions (MFIs), non-MMF investment funds, OFIs, FAs, CFIML, and public NFCs.

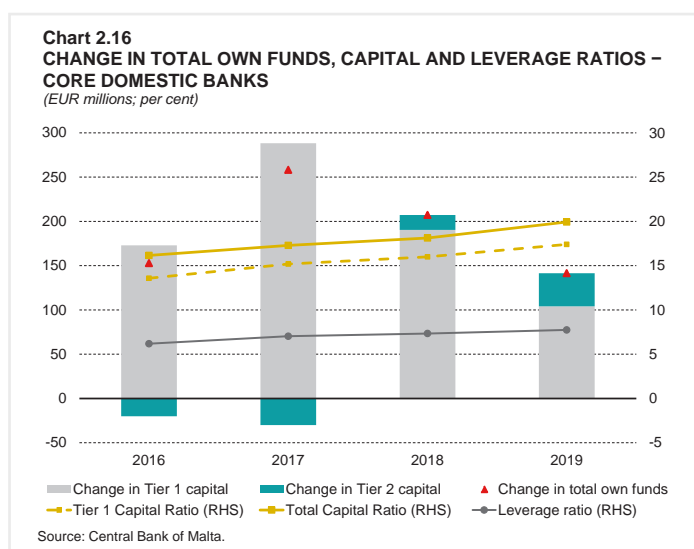
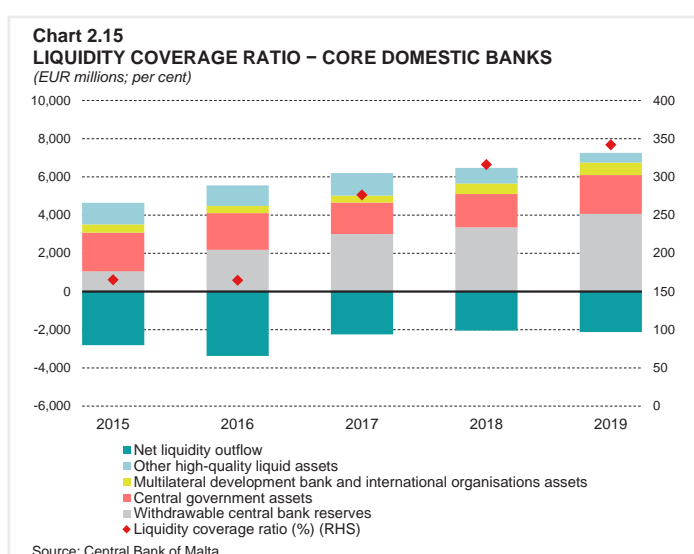
Meanwhile, interbank exposures (excluding repos) as a share of liabilities fell by 1.5 percentage points to 3.8% in 2019, mainly reflecting lower non-resident intragroup lending and funding from other unrelated credit institutions. Debt securities issued also declined by 15.3% in 2019 to account for just over 1% of the total liabilities as maturing bonds of two core domestic banks were not fully rolled-over. In contrast, funding from repos and 'other liabilities' rose by 11.5% and 10.1%, respectively, but still financed a more limited share of total assets, at 1.0% and 4.5%, respectively.

Liquidity

In line with previous years, core domestic banks continued to operate on the back of ample liquidity buffers, with the LCR improving to 341.6% in 2019 from 316.1% in 2018 (see Chart 2.15). This improvement reflected higher liquid assets which rose at a faster pace than net liquidity outflows. Liquid assets rose by 12.2% as a result of higher withdrawable central bank reserves, central government assets, and multilateral development bank and international organisations assets while net liquidity outflows went up by 3.8%. In addition, the customer loan-to-deposit ratio for core domestic banks declined by 1.3 percentage points to 59.6% in 2019, remaining significantly below the euro area average of about 102%.⁷

2.1.4 Capital and Leverage

Core domestic banks expanded further their Tier 1 capital base, although at a slower pace when compared to recent years. As a result, the Tier 1 capital ratio strengthened by 1.4 percentage points to 17.4% as at end-2019 (see Chart 2.16). All banks reported higher Tier 1 capital ratios while continuing to report some level of voluntary buffers above the minimum regulatory requirements. This includes extra capital add-ons highlighted under the Capital Requirements Directive (CRD) IV such as the capital conservation buffer (CCB), which stood at 2.5 percentage points on Tier 1 capital ratio for 2019. Furthermore, as at end 2019, some of these banks were required to hold additional capital in line with the Other Systemically Important Institutions (O-SIIs) buffer and Pillar II requirements (see Chapter 5).⁸ At the same time, the Countercyclical Capital Buffer (CCyB) remained unchanged at 0%.⁹



⁷ Source: ECB SDW

⁸ Pillar II requirements include the capital buffer arising from the Supervisory Review and Evaluation Process (SREP) and guidance levels.

⁹ Refer to <https://www.centralbankmalta.org/countercyclical-capital-buffer>.

Furthermore, Tier 2 capital also improved for the second consecutive year, up by 15.3% on the back of higher eligible subordinated loans reported by two core domestic banks. In light of these developments, total own funds for core domestic banks rose by 6.8% to reach €2.2 billion by end 2019. This, coupled with lower RWAs, led to an increase in the Total Capital Ratio to 19.9% from 18.1% in 2018. The enhanced capital buffers were also supported by an improvement in the leverage ratio which trended upwards to reach 7.7% by the end of 2019, exceeding the 3% minimum requirement stipulated in the CRR.

Going forward, challenges to the core domestic banks' profitability are highly likely to increase as a result of the COVID-19 pandemic. As banks anticipate increased expected credit losses, higher provisioning is expected to take place. At the same time, the introduction of moratoria on loan repayments should ease the burden on borrowers and limit to some extent immediate adverse consequences on asset quality. In contrast, the temporary restrictions imposed by Government to preserve public health have halted economic activity, which in turn, affected the banks' bottom line in terms of lower income from fees and commissions receivable, foreign exchange and other non-interest income activities. Furthermore, lower demand for house purchases could result in a slowdown in this kind of credit, leading to lower income from intermediation activities. On the upside, banks are expecting higher short-term demand for corporate loans to finance working capital, which should partly offset the expected slowdown in loans.

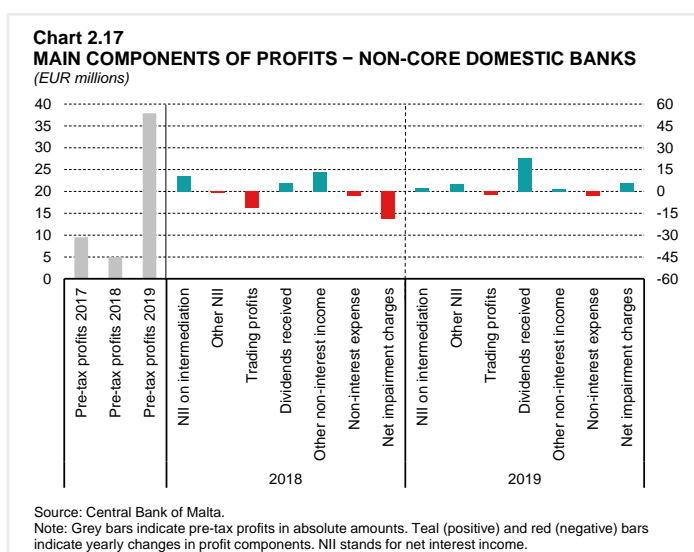
2.2 Non-core Domestic Banks

In 2019, the number of non-core domestic banks remained unchanged at five. However, their activities expanded by 9.3% with overall assets accounting for 22.2% of GDP. Growth was mainly driven by higher placements with the Central Bank of Malta and loans to both residents and non-residents, with resident loans picking up momentum as these banks continued to penetrate the domestic market. Yet, resident loans still accounted for just 2.4% of all resident customer loans in the banking sector. In turn, elevated lending activity was primarily funded by increased non-resident customer deposits as some banks also ventured into online deposit platforms to widen their funding sources.

2.2.1 Profitability

The overall profitability of this group of banks improved substantially but mainly on the back of one bank which received pronounced dividends from one of its subsidiaries. When the latter is taken into consideration, pre-tax profits surged from around €5 million in 2018 to €37.8 million a year later, pushing the post-tax ROE and ROA to 11.5% and 1.3% from 1.5% and 0.2% a year earlier. Excluding these dividends, the profitability of these banks would still have improved, largely due to an increase in NII from intermediation and lower net impairment charges.

The notable increase in dividends received by one bank drove up overall non-interest income by more than 50% to represent around two-thirds of gross income (see Chart 2.17). Yet, when excluding the effect of these dividends, other non-interest income declined on the back of lower fees and commissions, which fell by a fifth in 2019, in part reflecting the de-risking measures on some portfolios. Nevertheless, since the operations of these banks are largely focused on international trade finance, documentary collection and custody services among others,



fees and commission income remained an important source of revenue, representing around 70% of non-interest income excluding dividends.

NII rose by almost a third over the previous year and was entirely driven by higher lending volumes as otherwise the interest rate spread fell by 0.3 percentage point owing to a faster drop in the weighted average rate on loans than that on deposits. Other NII also increased, however, it still accounted for just over a quarter of total interest income. Profitability of these banks was partially affected by higher non-interest expenses, mainly in the form of staff wages and higher investments in IT infrastructure as, otherwise, net impairment charges decreased during 2019.

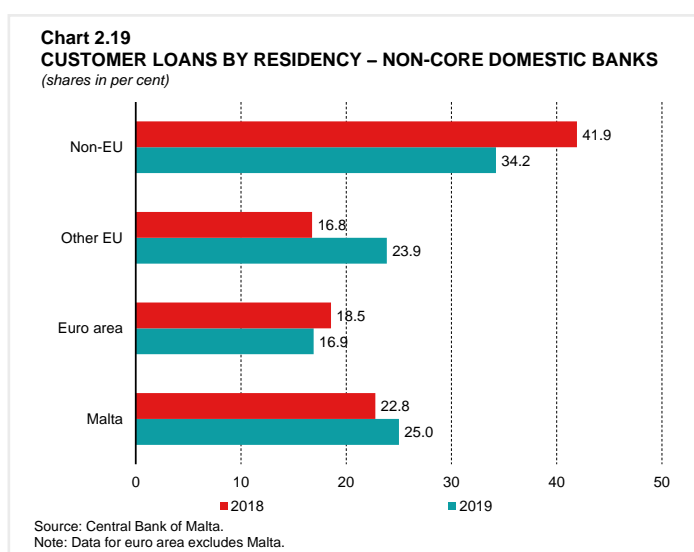
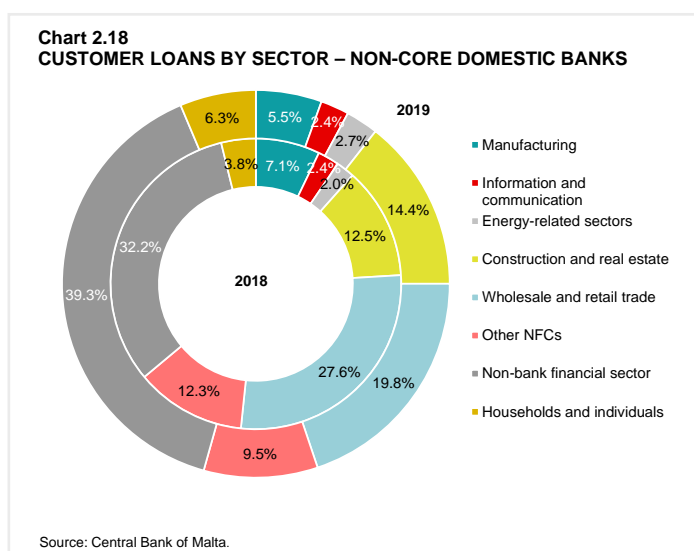
Despite registering an increase in non-interest expenses, the cost-to-income ratio improved by a considerable 16 percentage points to 45.6%, boosted by the rise in dividends mentioned earlier. Should the effect of these dividends be excluded for both 2018 and 2019, the cost-to-income ratio would deteriorate by 1.6 percentage points to 73.8%.

2.2.2 Asset Quality

The loan portfolio

Lending by the non-core domestic banks increased by 10.4% to surpass the €1 billion mark, accounting for 37.0% of their overall balance sheet. The expansion in the loan book originated primarily from the non-bank financial sector, mainly from trusts, followed by the construction and real estate sector, and households and non-profit institutions serving households (NPISH). At 39.3% of the customer loan book, loans to the non-bank financial sector represented the largest share. These grew by just over 7 percentage points from 2018 (see Chart 2.18). Loans to the wholesale and retail trade sector fell by just over a fifth, but remained the second most important sector, accounting for almost a fifth of customer loans. Although loans to households almost doubled, these represented just above 6% of these banks' loan book as at end 2019.

While both resident and non-resident loans increased, the geographical allocation changed somewhat. Loans to European countries other than the euro area grew by almost 60% to represent around 24% of customer loans (see Chart 2.19). Meanwhile, loans towards euro area countries increased marginally, yet their share in the retail



loan book fell by 1.6 percentage points to 16.9%. Lending towards non-EU countries fell by almost 10% to around a third of the loan book. Overall, non-resident customer loans increased by 7.6% to represent around three-quarters of the customer loans portfolio. These were largely concentrated in the financial and insurance activities sector and, to a lesser extent, in the wholesale and retail trade sector, construction, real estate and manufacturing. Resident customer lending increased by just over a fifth to account for a quarter of the customer loan book. The penetration of these banks in the resident retail market was most pronounced in the household sector, mainly consumer credit, with such banks catering for 11.5% of the overall resident consumer credit in the system. Loans to the resident construction and real estate, and financial and insurance sectors also grew. Nevertheless, excluding consumer credit, links with the domestic economy remained limited, with the share of resident customer loans in overall resident lending of the banking sector standing at just 2.4%.

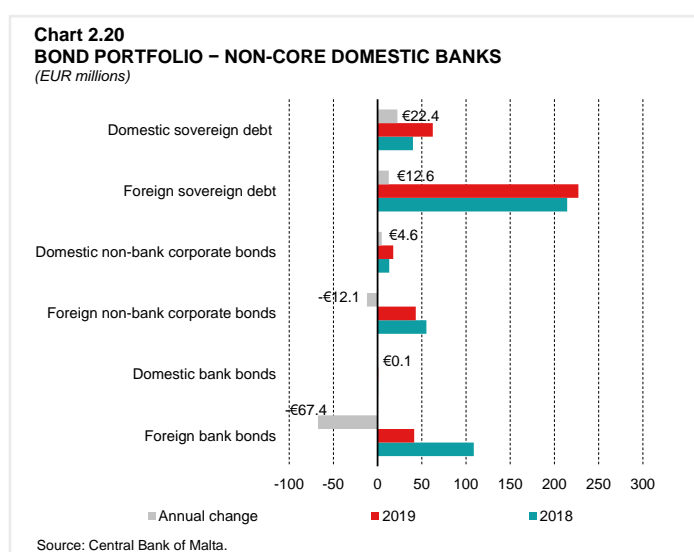
Interbank exposures declined by just over a third to almost 13% of total assets in 2019. This contraction was driven by both lower resident and non-resident placements with unrelated credit institutions.

The overall NPL ratio of this category of banks increased by 1.9 percentage points to 5.5% mainly on the back of higher NPLs by one bank. Excluding this bank, the overall NPL ratio would have stood at just 0.5%, up from 0.1% in the previous year. The non-resident NPL ratio rose to 8.8% from 4.5% a year earlier, with the bulk of the increase stemming from the wholesale and retail trade sector. Accordingly, the share of this sector's non-resident NPLs grew to almost two-thirds of all non-resident NPLs. Resident NPLs also rose, up by 13.8% but the resident NPL ratio remained contained at just 1.9%. These NPLs were mainly concentrated in the OFIs sector and corporates operating in the administrative and support services activities and in the wholesale and retail trade. As these banks expanded their retail loan book, credit risk rose commensurately, with risk exposures accounting for around 87% of RWAs. Meanwhile, in line with the surge in NPLs, provisions also rose – albeit at a slower pace – up by 9.1%. Around 41% of overall NPLs are covered by provisions. Taking into consideration the collateral backing NPLs together with the provisions, coverage will increase to 59%, although still leaving some NPLs exposed to credit risk.

The securities portfolio

The investment portfolio contracted by 3.4% to €711.8 million to stand at almost a quarter of total assets in 2019.

The bond portfolio contracted by 9.2% to represent 13.4% of total assets. These banks changed somewhat their portfolio allocation, as they increased investments in both domestic and foreign sovereign paper, while shedding a significant amount of their foreign bank bonds (see Chart 2.20). As a result, investments in foreign sovereign paper accounted for a large share of the bond portfolio. These mainly reflected holdings of euro area government paper, and to a lower extent non-EU government bonds. Domestic sovereign paper became the second most preferred investment type for this group of banks, followed by investments in foreign non-bank corporate bonds. The latter contracted by just over a fifth to around 11% of their bond portfolio. As a result of these developments,



even the geographical bond allocation changed somewhat, with the domestic bond portfolio expanding by just over 50%, albeit still accounting for around a fifth of the bond portfolio.

Although high-rated bonds contracted by 8.1%, their share in the bond portfolio increased by 0.7 percentage point to almost two-thirds. Meanwhile, unrated and speculative bonds fell significantly by just over a third, pushing down their share in the bond portfolio by 6 percentage points to 15.4%. Conversely, the share of low- and medium-rated bonds rose to 8.6% and 12.9%, respectively. Consequently, the quality of their bond portfolio improved over a year ago.

Equity holdings increased by almost 5% annually, reflecting higher non-resident equity holdings in non-bank financial intermediaries and money market funds (MMF), as otherwise these banks sold around 30% of their units in domestic non-money market investment fund. As a result, the share of domestic equity holdings accounted for around a third of total equity holdings. Following these developments, the asset allocation ratio of bonds and stocks became more balanced from 60:40 in 2018 to 55:45 in 2019.

2.2.3 Funding and Liquidity

The upward trend in customer deposits observed in recent years persisted. These grew by 12.1% to finance just over 70% of these banks' business activities. Against this backdrop, the level of covered deposits under the DCS rose by 16%. Similar to previous years, non-core domestic banks' preference in targeting non-resident customers persisted, as these surged by 16.2% to account for around 77% of total customer deposits and around 55% of their balance sheet size. These banks obtained the majority of their retail funding from non-resident households and OFIs which rose by around 12% and 40%, respectively. In contrast, non-resident corporate deposits fell by just over a fifth to account for 8.0% of overall customer deposits. Resident customer deposits rose by a marginal 0.3% to finance 16.3% of total assets. During the year, these banks substituted somewhat their domestic funding sources as funding from resident OFIs increased, to become the most preferred domestic funding source while funding from resident households declined by a quarter. Meanwhile, resident corporate deposits also retreated by around a fifth, which was partially compensated for by higher deposits from domestic non-MMF investment funds.

Despite being another important source of funds, interbank funding fell by 12.6% to finance almost 11% of total assets. These were mainly in the form of deposits from unrelated non-resident credit institutions received by one bank. Resident interbank funding remained limited to just 4.6% of total interbank exposures by this category of banks. By the end of the year, Eurosystem funding more than doubled to €45.7 million particularly through the banks' participation in TLTRO III, and the tapping of the one-week US dollar funding operations. During the year, the central bank-eligible CBC, defined as the stock of unencumbered assets or other funding sources which are legally and effectively available to institutions to cover potential funding gaps, rose by almost 40% to €663.7 million, representing 23.5% of the balance sheet position, up from 18.4% in the previous year. This is indicative of the funding space available in times of liquidity stress, with the central bank-eligible share of CBC amounting to 2.6 times the total LCR net cash outflows, suggesting that these banks can on aggregate survive around 75 days of net cash outflows in a stressed scenario. In addition, central bank-eligible CBC as a share of total covered deposits under the DCS stood at 62.3% by end 2019.

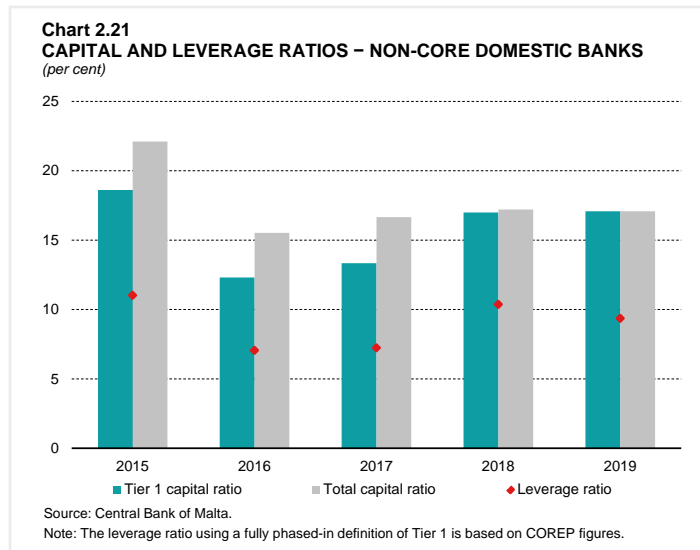
The liquidity position of these banks remained healthy as evidenced also by the high LCR of 381.7%. All banks reported an LCR significantly above the 100% regulatory threshold, signalling that these banks have ample liquidity buffers. Liquid assets are largely in the form of central bank and government assets.

2.2.4 Capital and Leverage

Similar to previous years, the capital position of these banks remained adequate, with the total and Tier 1 capital ratios both standing at 17.1% (see Chart 2.21). During 2019, the increase in risk weighted exposures of 4.2% was more than compensated by a simultaneous increase in total own funds of 3.5%. At the same time, the risk profile of these banks was reduced slightly, as the ratio RWAs to total assets declined

by 3.2 percentage points to 60.7%. The expansion in total own funds was entirely underpinned by higher Tier 1 capital, as Tier 2 capital fell as one bank shed off completely its own Tier 2 capital. The majority of risk exposures are mainly composed of credit exposures derived from corporates, and to a much lower extent, in operational risk exposures and foreign exchange risk exposures.

Similarly, at 9.4% the non-risk-based leverage ratio remained healthy, with all banks exceeding the minimum regulatory threshold of 3%.



2.3 International Banks

The number of institutions classified as international banks increased to 14 in 2019. Four operated as branches of foreign banks, with the remainder operating as subsidiaries or stand-alone banks. The business model of these banks focuses almost entirely on non-residents, hence exhibiting negligible links with the domestic economy. The core activities of this group is varied, ranging from trade financing and factoring, payments and settlements, to wealth management and lending to both retail and wholesale customers. Wholesale funding is the preferred avenue of funding, though some banks also rely on retail customer deposits.

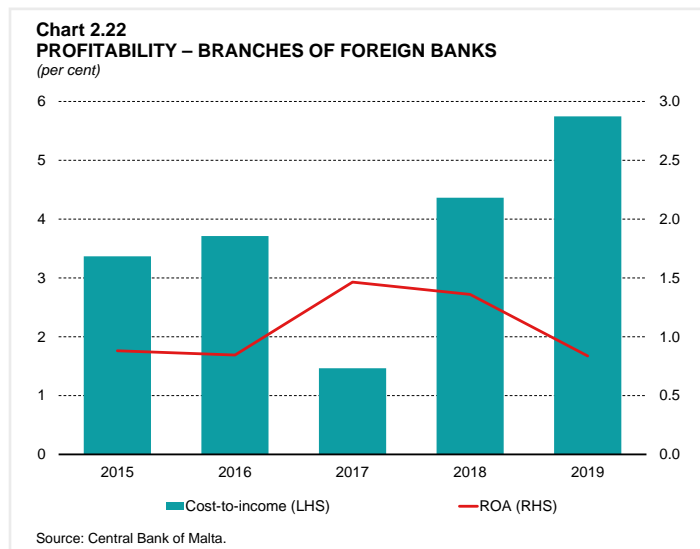
During the year, total assets of this category of banks contracted by 21.1% to stand at 102.1% of GDP. This contraction was mainly driven by the two largest branches of foreign banks, which have continued to down-size their operations. Should all branches be excluded, the balance sheet size of the remaining banks would have still contracted, albeit at a slower rate of 4.7%.

2.3.1 Branches of Foreign Banks

2.3.1.1 Profitability

Pre-tax profits of the four branches of foreign banks more than halved to €111.4 million in 2019, with the post-tax ROA contracting from 1.4% in 2018 to 0.8% a year later (see Chart 2.22). The deterioration in profits was mainly driven by lower NII which was partly offset by higher non-interest income and declines in net impairment charges and operating expenses.

NII dropped by a significant 72.7%, as the fall in interest income outpaced reductions in interest expenses. Indeed, interest income declined by 38.6%, almost entirely due to lower income from investments as branches continued to shed holdings of foreign non-euro government paper. Interest income from intermediation also fell by



0.5% due to lower income earned on euro-denominated loans to foreign NFCs and on placements with parent banks. Such weakening reflected lower volumes of approved loans, as otherwise the weighted average interest rate on these loans stood relatively unchanged at 3.6% in 2019. Meanwhile, interest expense fell by around one fifth over the previous year, on account of both lower customer deposits and interest rates charged on such deposits.

Profits from non-interest bearing activities tripled to represent 40.8% of total gross income in 2019. This recovery from previous years' reported losses was mainly attributed to higher income earned from foreign exchange revaluations and lower non-trading losses from the disposal of financial assets classified at FVOCI.

Net impairment charges also contributed positively to profitability, falling by just under a third in 2019 following significant increases in 2018. Similarly, non-interest expenses contracted by almost a third over the previous year on account of reductions in operating expenses. Branches continued to report modest operating costs, which as a share of total assets stood at just 0.1%. In terms of cost-efficiency, the cost-to-income ratio increased by 1.4 percentage points over 2018, though it remains low at 5.7%, mirroring low operating costs given their strong reliance on their head office for operational support.

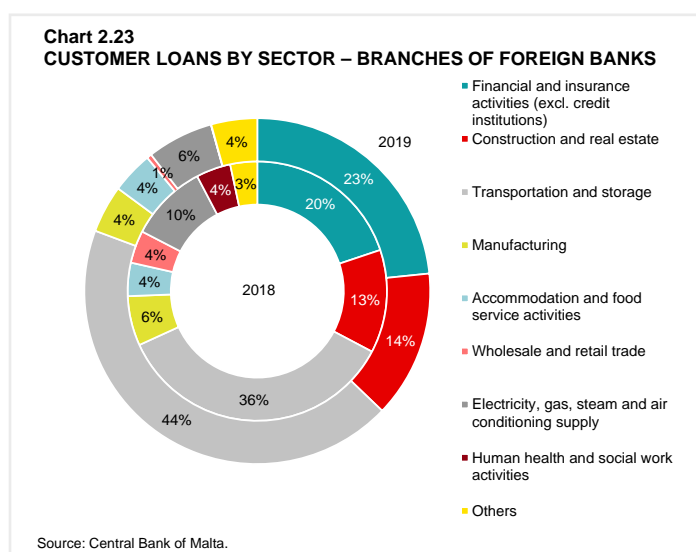
2.3.1.2 Asset Quality

The loan portfolio

Customer loans issued almost exclusively to non-residents declined by 11.8%, yet as a share of total assets these increased by 5.3 percentage points to 38.0% in 2019. Corporate loans declined by 15.6%, but still accounted for more than three-quarters of the customer loan portfolio and were mainly concentrated in the transportation and storage sector, construction, energy, manufacturing and administrative and support services activities (see Chart 2.23). Meanwhile, loans to non-resident OFIs increased by 3.8% over 2018, representing just under a quarter of the loan book and around 9% of the balance sheet size in 2019. Loans issued towards resident customers remained negligible.

Interbank exposures fell by 8.7% in 2019, but their share in total assets rose by 2.3 percentage points to 13.9%.¹⁰ Although interbank placements with unrelated non-resident banks declined, these still accounted for more than two-thirds of the overall interbank exposures and around 9.5% of total assets. On the other hand, interbank exposures of branches with their parent and subsidiary companies increased by 2.7% over 2018, and accounted for 4.4% of total assets. Placements with the Central Bank of Malta fell by more than half compared with the same period last year, accounting for 4.0% of total assets in 2019.

The asset quality of the loan portfolio of these branches improved, with the NPL ratio easing to 1.2% in 2019 from 1.4% in the previous year. The level of non-performing loans declined by more than a quarter over 2018, stemming mainly from non-resident OFIs and, to a lower extent, foreign NFCs specialised in the manufacturing and construction sector. Compared to 2018, provisions halved to €21.2



¹⁰ Interbank exposures include loans and deposits reported on the assets side and exclude interbank repos and securities.

million in 2019. Consequently, the coverage ratio dropped by 12.9 percentage points to 27.7% in 2019, as the drop in provisions outpaced the drop in NPLs.¹¹ While the collateral underlying non-performing loans mitigates somewhat credit risk, NPLs are not fully covered, with provisions and collateral amounting to about 63.6% of NPLs.

The securities portfolio

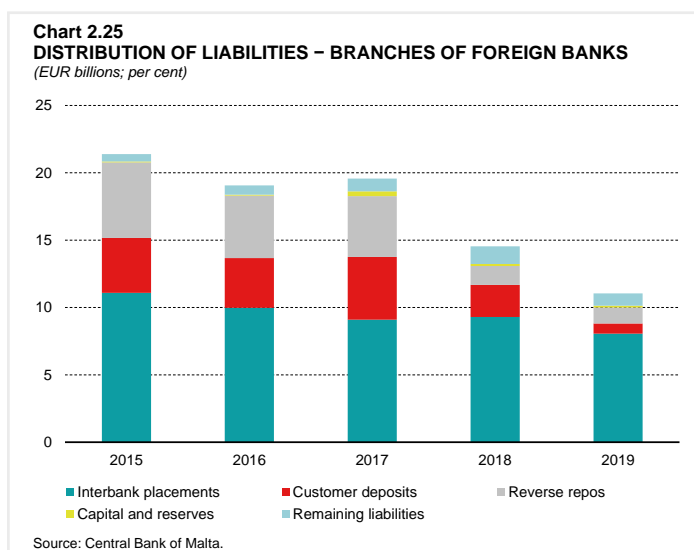
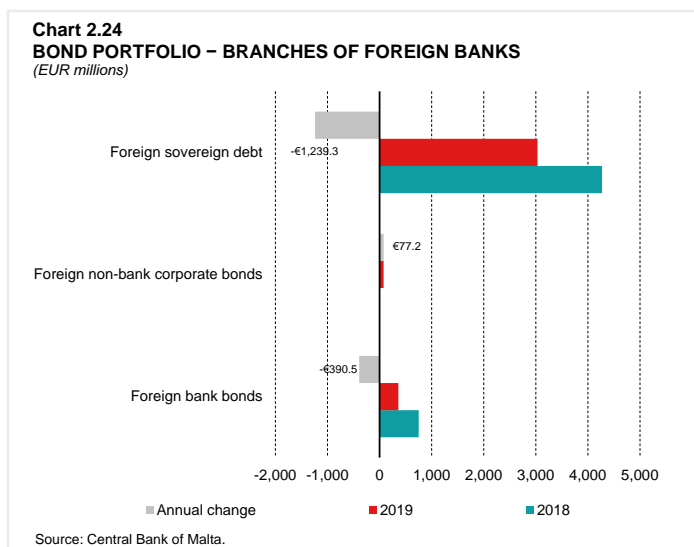
The contraction in the balance sheet of the branches was primarily driven by a reduction in the securities portfolio, which fell by almost a third. Thus, their share in total assets dropped to 31.4% in 2019 – 3.1 percentage points lower than in the previous year.

Holdings of foreign sovereign bonds, largely non-euro area government paper, still represented the bulk of the securities portfolio (see Chart 2.24). At the same time, investments in MFI bonds more than halved to account for 10.4% of the securities portfolio. Given the predominance of non-euro area paper in the portfolio of these branches, which reflects the location of their respective head office, such portfolios feature a low investment rating.

2.3.1.3 Funding and Liquidity

Wholesale funding for the branches contracted by 13.3%, mainly due to lower placements from their respective head offices. Nevertheless, it remained the most preferred source of funding, up by 9.0 percentage points over 2018, and financing 73% of the balance sheet (see Chart 2.25).¹² Meanwhile, lower interbank placements by unrelated credit institutions were also reported. Similarly, repos with unrelated credit institutions fell by 16.5%, funding another 10.6% of total assets.

Customer deposits fell by more than two thirds over 2018, pushing down the share in total liabilities by 9.5 percentage points to just 6.8% in 2019. While deposits remained mostly sourced from foreign private NFCs – accounting for 73.7% of total customer deposits – withdrawals were reported from private NFCs operating mainly in the wholesale and retail trade and manufacturing sector. Deposits from non-resident OFIs and households also fell, though by a lower extent, and accounted for 13.4% and 0.4% of total customer deposits, respectively. Meanwhile, deposits from insurance companies and pension funds increased by more than



¹¹ Provisions for two branches who do not report any NPLs are excluded from the calculation of the coverage ratio.

¹² Wholesale funding includes interbank deposits and loans reported on the liabilities side, but excludes repurchase agreements.

threefold to 12.5% of the customer portfolio in 2019 from just 1.2% a year earlier. Internal funding in the form of capital and reserves represented another 1.2% of total liabilities in 2019. Funding from residents, largely households, remained negligible and shrank further to just €0.6 million in 2019 from €1.7 million in 2018.

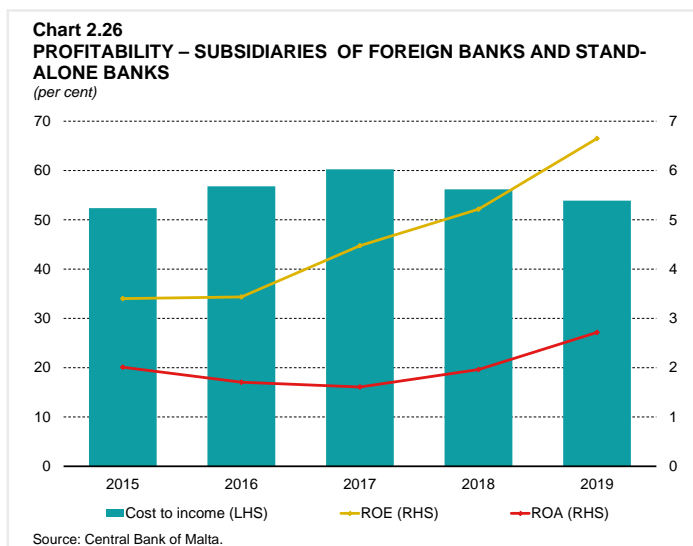
2.3.2 Subsidiaries of Foreign Banks and Stand-alone Banks

2.3.2.1 Profitability

Pre-tax profits generated by these banks improved by 30.1% during 2019, driven predominantly by one bank, as a result of lower net impairment charges and, to a lower extent, by other banks involved in micro lending. Against this backdrop, this category of banks' post-tax ROA and ROE improved by 0.8 percentage point and 1.4 percentage points to 2.7% and 6.6%, respectively (see Chart 2.26).

NII grew strongly by 23.8% over 2018, with its share on total gross income rising from 50.4% in 2018 to 52.8% in 2019. The expansion in NII mainly stemmed from higher interest income earned from intermediation which went up by 18.7% over 2018, reflecting the increase in volumes of micro-loans to non-resident households. Interest expenses fell by 5.0%, supporting the increase in NII on the back of the lower weighted average interest rate on deposits, which dropped to 1.5% in 2019, as otherwise the customer deposit base grew. Income from non-interest bearing activities strengthened by 12.2% over 2018, supporting further the improvement in profits mainly on the back of higher fees and commissions as well as trading profits.

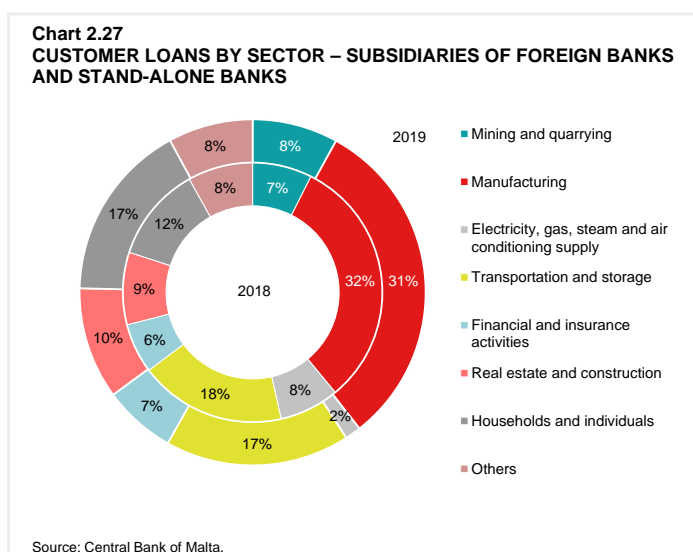
Non-interest expenses expanded by 13.3% over 2018, owing to higher fees and commission charges incurred by one bank as well as staff expenses which rose by 12.7% over a year ago. Overall net impairment charges grew by almost a fifth in view of higher write-downs on collective provisions. Notwithstanding, the cost efficiency of this banking group improved, with the cost-to-income ratio narrowing by 2.3 percentage points to 53.9% in 2019, as operating income rose at a faster pace than operating expenses.



2.3.2.2 Asset Quality

The loan portfolio

Although customer loans fell by 1.1% over 2018, driven by lower loans issued towards foreign NFCs specialised in energy-related sectors, the lending portfolio still accounted for two thirds of these banks' assets. The sectoral composition of the loan book remained relatively stable, with the majority of NFC loans issued towards manufacturing, transportation and storage as well as in the construction and real estate sectors (see Chart 2.27). Consumer loans to



non-resident households increased by a significant 39.1%, driven mainly by micro-lending activity. Loans to non-resident OFIs rose by 5.8% over the previous year to represent 6.7% of total customer portfolio. Resident loans, mainly towards corporates in the transportation and storage sector, declined marginally over 2018 to just 1.0% of the total customer loan portfolio, accounting for just 0.2% of all resident customer loans in the Maltese banking system.

At the same time, interbank placements contracted by around a quarter to 12.2% of total assets, owing to lower placements by parent and subsidiary companies, as otherwise interbank placements from unrelated foreign credit institutions rose by 38.4%. Meanwhile, placements from unrelated resident credit institutions almost halved to finance just 1% of assets in 2019.

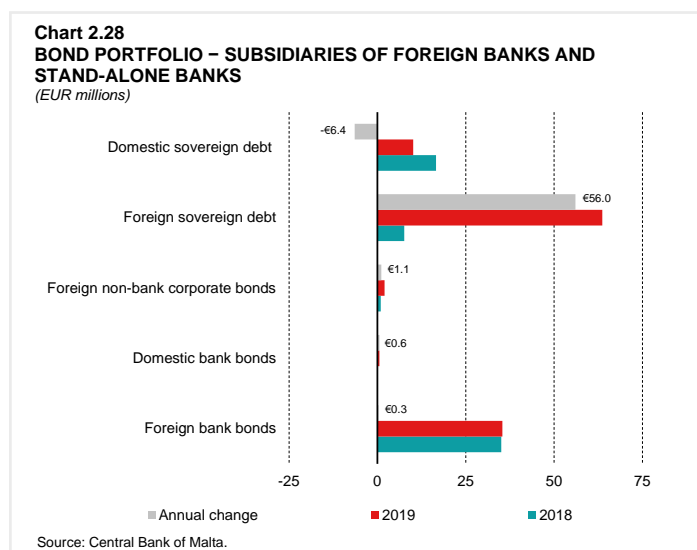
During 2019, the asset quality of these banks improved, with the NPL ratio dropping by 2.4 percentage points to 3.5% in 2019. NPLs almost halved on the back of lower NPLs related to foreign NFCs, mainly operating in the transportation and storage sector and real estate activities and to a lower extent, in manufacturing, accommodation and food services activities, energy-related, human health services and social work activities, and the wholesale and retail trade sector. Meanwhile, household NPLs increased by 1.9% over 2018, stemming exclusively from micro lending activity. Total provisions fell by 5.8% over the previous year. Nonetheless, the coverage ratio strengthened from 62.2% in 2018, to 109.6% a year later, as the drop in NPLs outpaced the decline in provisions. Collateral as a means of credit risk mitigation measure was, however, limited, yet NPLs remain fully covered even when excluding collateral backing NPLs.

The securities portfolio

The securities portfolio held by these banks expanded by 51.2% over 2018, pushing up its share of assets to 6.7% in 2019, from 4.2% a year earlier. The increase was mainly driven by higher bond holdings, which rose by 85.7%, representing around two-thirds of the securities portfolio. This was underpinned by higher sovereign securities, which accounted for more than half of bond holdings (see Chart 2.28). Investments in foreign sovereign paper increased significantly, largely comprising of euro area sovereign bonds. Meanwhile, MGS holdings fell by more than a third, to account for around 9% of the bond portfolio. These banks also invested in MFI and NFC bonds, mostly foreign, with their share accounting for 32.8% and 1.8% of the bond portfolio in 2019, respectively. As a result of these developments there was a shift in the quality, with the share of medium-rated bonds increasing from 52.1% in 2018 to 78.1% in 2019, whereas the share of high-quality bonds dropped by 25 percentage points to 15.5% in 2019, indicating some search-for-yield behaviour. Furthermore, the remaining 6.4% were invested in low-rated and unrated bonds. Although the overall credit quality of the securities portfolio weakened, these banks do not have any non-performing securities. Meanwhile, the remaining third of securities is invested in equities, which rose by over 10% and are mainly of German NFCs.

2.3.2.3 Funding and Liquidity

This category of banks relied largely on capital and reserves including retained earnings to finance their operations, accounting for two-fifths of the balance sheet. Reliance on wholesale funding weakened further in 2019 and is being substituted by retail funding with customer deposits increasing by 13.4%, pushing up the share in total liabilities by 5.2 percentage points to around a third in 2019. The majority of customer deposits

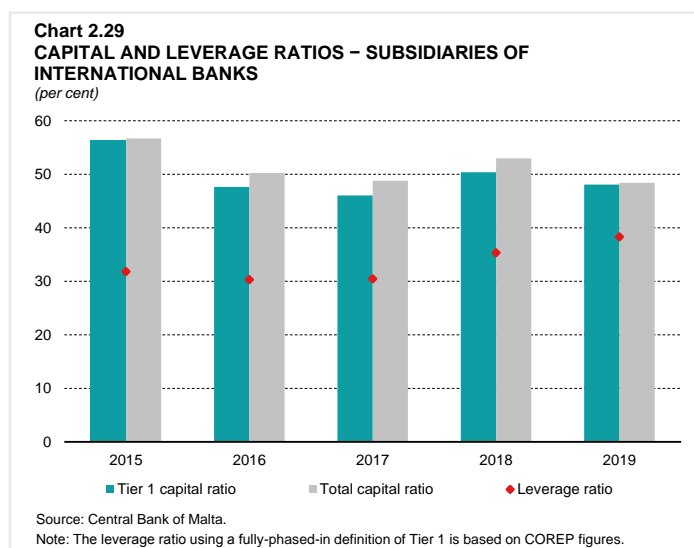


are sourced from non-residents, largely from households which increased by almost a quarter to account for 43.9% of total customer deposits and financed around 14% of the balance sheet. Similarly, deposits of non-resident private NFCs increased by 12.0%, whereas deposits from non-resident OFIs fell by 4.2%, to account for 15.3% and 34.7% of customer deposits, respectively. Although the business model of these banks remained internationally-oriented, resident customer deposits more than doubled, driven by higher deposits from resident OFIs. Yet, these accounted for less than 2% of total liabilities of this category of banks and just 0.3% of total resident customer deposits held in the Maltese banking system in 2019.

Wholesale funding fell by 30.7% over 2018, financing 16% of total assets in 2019. This reflected a retrenching from intragroup funding, which contracted by more than a third, though funding from unrelated foreign banks increased by 3.5% to finance just 2.1% of total assets in 2019. Although some banks are eligible to participate in Eurosystem funding operations, by the end of the year, no bank tapped such source reflecting their ample liquidity buffers. Meanwhile, although declining, the LCR stood at 396% in 2019, remaining well-above the minimum regulatory requirement.

2.3.2.4 Capital and Leverage

The capital position of these banks remained strong in 2019, with the total capital and Tier 1 capital ratios standing at 48.4% and 48.1% respectively (see Chart 2.29). Despite these strong capital positions, both the Tier 1 and the Total capital ratio declined slightly over 2018. The drop was motivated by lower own funds as one bank is winding down its operations on a voluntary basis, coupled with an increase of 1.4% in RWA. As a result, the RWA on total assets increased from 79.6% in 2018 to 84.9% in 2019, reflecting also the contraction in total assets. Meanwhile, the leverage ratio improved by 3.0 percentage points to 38.3% in 2019, the highest level in these last five years.





3. STRESS TESTS

3. STRESS TESTS

The Central Bank of Malta conducts regular stress tests and scenario analyses to assess the resilience of the domestic financial system to extreme – yet plausible – shocks, under different hypothetical scenarios. In response to the COVID-19 pandemic, the Central Bank of Malta has modified its stress testing frameworks to assess the impact of the pandemic on banks' solvency and liquidity positions. While the results of these stress tests are presented in Panel B of the Special Feature on COVID-19, this chapter focuses on the results of the Macro Stress Testing (MST) and the interest rate risk in the banking book (IRRBB) frameworks. In particular, section 3.1 describes the MST framework which is run under a baseline and an adverse scenario, which consider the June 2020 projections to take into account the impact of the pandemic. The MST framework is complemented by a sensitivity analysis relating to the impact on core domestic banks under a house price correction scenario. Section 3.2 presents the results of the IRRBB framework which assesses banks' NII under prescribed scenarios for changes in interest rates.

The stress tests presented in the following sections have been tailored to address specific risks and may exclude certain banks that fall out of scope of the exercise being conducted.¹ The results are benchmarked against the applicable minimum requirements for solvency and liquidity, and do not consider the [temporary capital relief measures](#) announced by the ECB Communication of 12 March 2020.^{2,3} Moreover, the purpose of the stress testing frameworks is to capture the effect of systemic risk rather than idiosyncratic risk; thus banks are subjected to similar assumptions and methodology so that they are benchmarked against a common scenario. This objective may restrict the frameworks' capacity to delve into idiosyncrasies of individual institutions, such that certain weaknesses inherent to the business model or balance sheet structure of particular banks are not directly or specifically captured. While the aggregate stress test results presented in this chapter as well as in Panel B of the Special Feature, show overall resilience of the banking sector to a pandemic-induced stress impact, capital depletion under the MST's adverse scenario is more substantial at individual bank level.

3.1 Macro Stress Testing Framework

The MST framework assesses the impact on banks' balance sheets from changes in the domestic and international macroeconomic and financial environment. It was first introduced in the [Financial Stability Report 2015](#), and periodically refined in terms of scenario design and methodology. The framework is designed to capture the core and non-core domestic banks due to their direct links with the domestic economy, albeit limited in the case of non-core domestic banks.

2020-2022 Scenario Design

The scenarios have been tailored to the current economic outlook amid the COVID-19 pandemic and feature a baseline and an adverse scenario. All scenarios are based on the June 2020 [economic projections](#) published by the Central Bank of Malta as part of the [Eurosystem staff macroeconomic projections](#). Specifically, the MST's baseline scenario refers to the baseline of the said macroeconomic projections while the adverse scenario draws from the severe scenario published in June 2020, with additional shocks to capture potential systemic risks to the domestic economy. A similar approach was adopted by the ECB for the COVID-related

¹ Specifically, branches from foreign banks are excluded from the stress testing sample given that these branches do not hold capital locally. Stress testing exercises are carried out with the intention of assessing banks' capital adequacy.

² This Communication informs banks that the "ECB will allow banks to operate temporarily below the level of capital defined by the Pillar 2 Guidance (P2G), the CCB and the LCR. The ECB considers that these temporary measures will be enhanced by the appropriate relaxation of the CCyB by the national macroprudential authorities. Banks will also be allowed to partially use capital instruments that do not qualify as CET1 capital, for example Additional Tier 1 or Tier 2 instruments, to meet the Pillar 2 Requirements (P2R)." Instead, the benchmarks considered in the tests consist of the capital requirements as applicable in December 2019.

³ For illustrative purposes, results in the *Financial Stability Report* are benchmarked against a common 6% minimum Tier 1 capital ratio; however, the results are also assessed in terms of the 4.5% CET1 capital ratio as well as the respective Total SREP Capital Requirement (TSCR) and Overall Capital Requirement (OCR) as communicated to banks prior to the revisions addressing the COVID-19 outbreak. The benchmark applied for the TSCR includes the 8% minimum total capital requirement and the bank-specific Pillar 2 requirements, while the OCR consists of the TSCR and all the combined capital buffers.

scenarios used in its [Vulnerability Assessment](#) published on 28 July 2020.⁴ This exercise was conducted on 86 Significant Institutions (SIs) across the euro area to assess the impact of COVID-19 following the postponement of the EBA 2020 EU-wide stress test to 2021.

Under the MST's baseline scenario, domestic GDP is expected to decline by -4.8% in 2020 due to a decline in foreign and domestic demand. Foreign demand drops mainly due to restrictions on travel-related activities and disruptions to the global supply chain. Projected oil prices include a significant drop in order to reflect the recent dip in prices which was observed between February and March 2020. The drop in domestic demand arises from a reduction in private consumption and investment as a consequence of the shutdown of various activities and elevated uncertainty. The unemployment rate is expected to peak at 5.5% in 2020. The domestic economy is expected to recover thereafter mainly driven by a resurgence of domestic demand with GDP growth standing at 5.8% in 2021 and 4.1% in 2022. The unemployment rate reduces to 4.6% in 2021 and 4.5% in 2022. Similar to the ECB's Vulnerability Assessment, this scenario is augmented by an exogenous V-shaped shock to equity prices which would drop by 12% in the first year and partially recover throughout the test horizon. Moreover, under this scenario, it is assumed that dividend income on banks' equity holdings would drop by 50% in 2020 and, similar to equity prices, partially recover throughout the test horizon.

Under the adverse scenario, GDP is expected to decline by 8.3% in 2020 following a severe drop in tourist expenditure due to the travel ban, global supply-chain disruptions and lower employment hours to avoid layoffs. Oil prices remain low as projected under the baseline scenario. The unemployment rate peaks at 6.1% in 2020. The impact of the adverse scenario is also augmented by exogenous shocks to equity prices which would drop instantaneously by a maximum of 24% while dividend income received by banks from shareholding companies would not be received in 2020 (100% haircut), with both partially recovering to approach the 2019 levels thereafter. Real estate prices are shocked to drop by around 5% in each year compared to the baseline scenario to account for the mild overvaluation observed at the reference date and to cancel the baseline growth.

Given that the scenarios take into account a three-year horizon, the effects of moratoria granted under the terms defined in [Central Bank of Malta's Directive No. 18](#) are not being considered.

Methodology

The current framework draws from the methodologies developed for the EBA EU-wide stress testing exercises and the top-down model adopted by the International Monetary Fund (IMF) during their 2018 Malta Financial Sector Assessment Program. The MST framework runs over a three-year time horizon and assumes a static balance sheet whereby the same structure is retained throughout the test horizon, to allow for ease of comparison across the results of banks in scope. To satisfy this requirement, assets and liabilities which mature between 2020 and 2022 are replaced with similar financial instruments in terms of type, credit quality and date of maturity as at the start of the exercise. Moreover, it is assumed that banks registering profits pay out dividends at 30% of pre-tax profits, where the latter are subject to the official corporate tax rate of 35%.^{5,6} However, in the case of losses, banks are not allowed to create deferred tax assets and, in line with the communication by both the [ECB](#) and [MFSA](#) on dividend distribution, dividends are not paid out whenever banks breach the respective OCR.

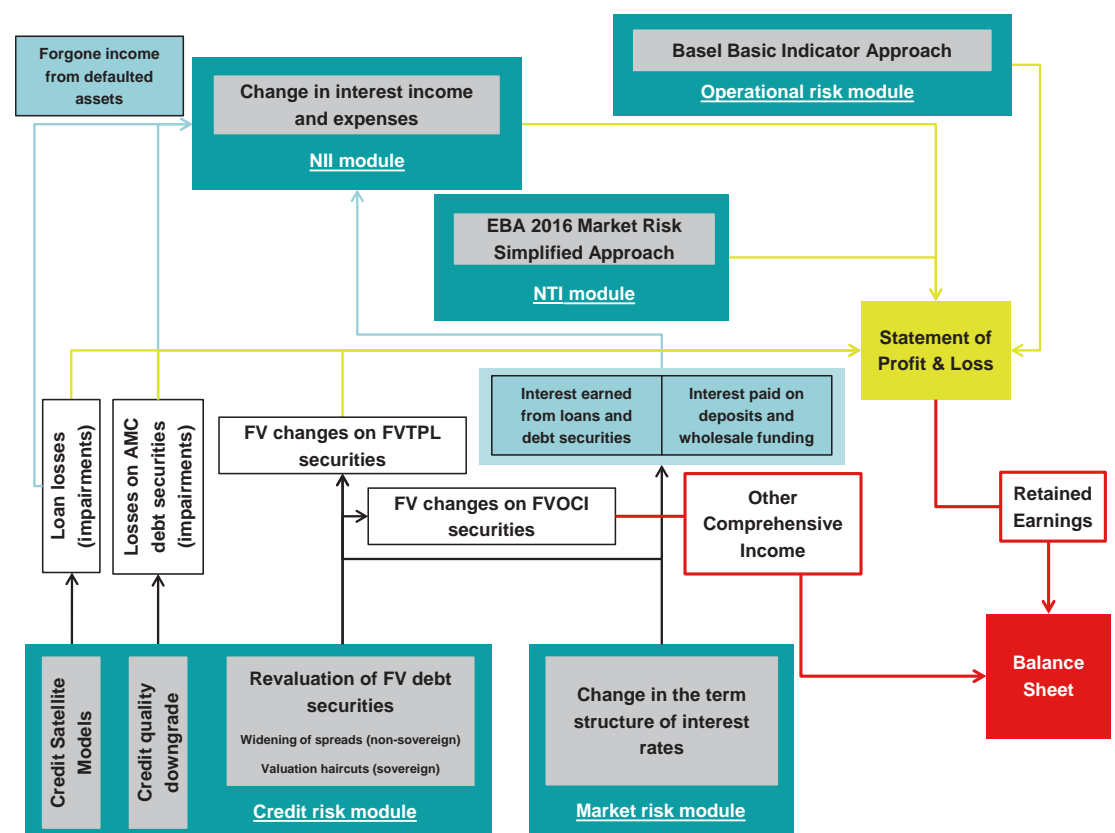
To transpose the changes in the macroeconomic scenarios onto banks, the framework employs a number of risk modules to quantify the impact from credit risk, market risk, NII (cost of funding), net trading

⁴ The ECB Vulnerability Assessment is based on three scenarios: a pre-COVID scenario based on the EBA 2020 EU-wide stress test baseline scenario and two COVID-related scenarios, namely the *COVID-MID* scenario and the *COVID-SEVERE* scenario, which are based on the *baseline* and *severe* Eurosystem staff macroeconomic projections as at June 2020.

⁵ While the ECB has issued Recommendation [ECB/2020/19](#) to ban dividend pay-outs for financial year 2019 and 2020, which has been extended by the MFSA to all licensed credit institutions directly supervised by it via a [circular](#), the MST allows banks that still manage to register profits during the horizon to pay out dividends from accumulated profits, if any. To note that if a dividend ban were to be applied in the test, the results under the baseline scenario would be more positive.

⁶ Even though banks are still allowed to pay dividends, dividend income received from shareholding companies is assumed to be hindered by the evolution of the pandemic, dropping by 50% and 100% in 2020, under the baseline and adverse scenarios, respectively. Dividend income is expected to partially recover in 2021 and 2022 to approach the 2019 levels.

Figure 3.1
SCHEMATIC OVERVIEW OF THE MST FRAMEWORK



Source: Central Bank of Malta.

income (NTI) and operational risk. The framework is flexible in a way that specific modules can be run on a stand-alone basis, additional modules can be incorporated, and the magnitude of shocks can be easily modified to suit the scenarios being tested. Figure 3.1 presents a schematic overview of the effects of the scenario as quantified by the respective risk module on the banks' statement of profit and loss (P&L) and balance sheet.

Overview of Risk Modules

The **Credit Risk Module** assesses credit risk arising from the loan book via panel regression which projects the NPL ratio at bank level for corporate and household loans using the main macroeconomic and financial variables defined in the respective scenario (more details in Box 3 of the [Financial Stability Report 2018](#)). Loan loss impairments are estimated on the unsecured portion of the projected new NPLs and are charged directly to the P&L.

For debt securities accounted for at AMC, impairments are estimated on the basis of a three-notch downgrade in the official credit rating, paired with a loss given default (LGD) of 35% for covered bonds and 40% for all other securities. The calculation of impairments also takes into account whether banks record a book value below par (which can be released to absorb expected losses) or if the booked value is above par (requiring higher impairments to erase the unrealised gains). Debt securities accounted for at FV are repriced on the basis of valuation haircuts sourced from EBA EU-wide stress testing exercises in the case of sovereign bonds, or via the widening of credit spreads for non-sovereign FV securities.⁷ The changes in

⁷ The widening of credit spreads is calibrated on the basis of the iTraxx European Senior Financial Index.

the price of securities accounted for at FV through profit and loss (FVTPL) are recognised as impairments in the P&L and thus are subject to taxation, while gains and losses on FV through other comprehensive income (FVOCI) securities are reflected in the balance sheet, having a direct impact on capital.

The **Market Risk Module** quantifies the losses that would potentially be incurred following changes in the term structure of interest rates. Under both the baseline and adverse scenarios, the profile of the yield curve changes as a result of the assumed increases in both the short-term (overnight) and long-term (10-year) interest rates. The changes to the term structure of interest rates would have a two-fold impact. FV bonds would experience valuation gains or losses owing to the inverse relationship between prices and yields while equity prices would drop by 12% in the first year of the baseline scenario and by 24% in the first year of the adverse scenario. In line with the expected recovery in GDP, equity prices are assumed to partially recover thereafter. The changes in valuation of FVTPL and FVOCI debt securities are recorded in the P&L and balance sheet, respectively. At the same time, NII might mitigate the former effect due to revised coupons earned on floating rate notes and debt securities which mature during the time-horizon which are rolled over at the new prevailing interest rates.

The **NII Module** affects income and expenses from interest-bearing assets (loans and debt securities) and liabilities (mainly deposits) by the shock to interest rates. The assumed shift in the yield curve is only in part translated onto the banks' interest income and expenses through the application of the respective pass-through rates which are sourced from [Micallef, Rapa and Gauci \(2016\)](#). These rates are estimated asymmetrically to reflect different responses by banks depending on whether interest rates have increased or decreased. Any interest-bearing assets and liabilities which mature during the time horizon are replaced with similar instruments that charge the new prevailing rates. In addition, most of the components of net non-interest income (NNII), such as administrative expenses and staff wages, are assumed to remain constant over the test horizon. However, dividend income received by banks from their shareholding companies for 2020 is assumed to drop by 50% under the baseline and 100% under the adverse scenario and partially recover thereafter, in line with the shock to equity prices. Moreover, fees and commission income are assumed to decline by 10% under the baseline and 15% under the adverse scenarios. The impact arising from NNII is added to the outcome of the NII module and charged to the P&L.

The **NTI Module** quantifies market risk on securities accounted for at FVTPL, which include derivatives and economic hedges. The historical variation of NTI obtained from these positions is used as a proxy for the banks' sensitivities to adverse market risk conditions. The module is based on the simplified approach of the market risk methodology adopted in the 2016 EBA EU-Wide Stress Test (described in Section 3.6 of the 2016 [methodological note](#)). The estimated changes in NTI are included in the P&L account.

The **Operational Risk Module** quantifies operational risk on the basis of the CRD IV's Basic Indicator Approach (BIA) which calculates a capital requirement for operational risk as 15% of the average over three years of the relevant indicator (RI). The RI is composed of several P&L items, the sum of which is equivalent to the net profit before tax figure. As per the EBA 2018 stress test methodology, this module calculates a materialisation of losses arising from operational risk equal to 6% of the RI under the baseline scenario and 15% under the adverse scenario. Moreover, the module accounts for projected losses from pending court cases which are equally distributed over the three-year stress test horizon under the adverse scenario as per paragraph 423 of the [EBA 2020 methodological note](#).

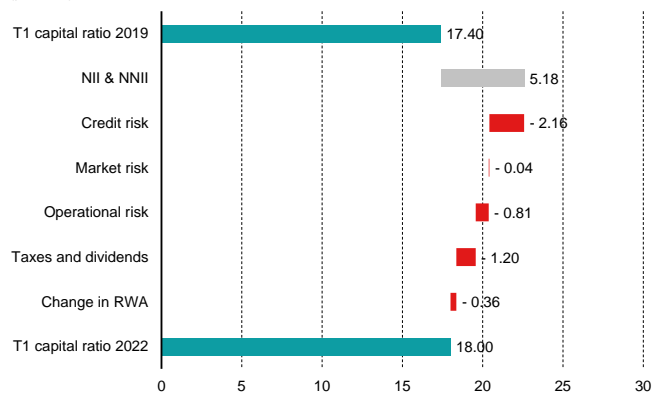
Results

Charts 3.1 and 3.2 present the contributions from the various risk modules (as a fraction of risk weighted assets) to the evolution of the Tier 1 capital ratio for core and non-core domestic banks, respectively, under the baseline scenario. In the case of core domestic banks, the change in the capital ratio is mainly driven by credit risk on the AMC debt securities and the loan portfolio due to the economic slowdown. Banks also need to set aside additional impairments for revaluation losses on FV debt securities following the change in the term structure of interest rates. It is also assumed that banks face a reduction in dividend income (50%

in 2020 with a partial recovery to approach the 2019 level thereafter), and in fees and commission income of 10%. Nonetheless, after absorbing these losses, core domestic banks increase capital with their Tier 1 capital ratio improving by 0.60 percentage point. Conversely, profitability of non-core domestic banks is negatively affected by credit risk on loans and market risk. The latter represents unrealised losses from the repricing of FV securities and the shock to equity prices which drop by 12% in the first year of the test horizon. The scenario, however, assumes that equity prices partially recover in the subsequent years. The Tier 1 capital ratio drops by 2.81 percentage points below the 2019 starting level, but remains well above the regulatory requirement of 6%.

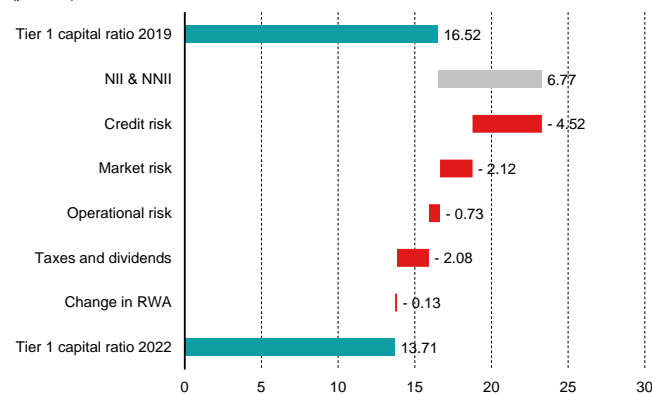
Charts 3.3 and 3.4 show that under the adverse scenario, the aggregate Tier 1 capital ratios would drop as banks within both bank categories would register losses that would need to be offset by the release of capital. In this case, most banks would not be able to distribute dividends. The Tier 1 capital ratio for core domestic banks falls by 3.29 percentage points to reach 14.11% while that of non-core domestic banks falls by 7.63 percentage points to reach 8.89%. Under this scenario, losses would mainly originate from higher levels of NPLs and defaulted bonds that reduce the stream of interest income via missed loan repayments and forgone coupon payments. This reduction in interest income is reflected in a less positive NII & NNII contribution when compared to the baseline scenario. Moreover, the higher share of defaulted assets is also reflected in the larger impact from credit risk requiring additional impairments charged to the P&L and the application of higher risk weights

Chart 3.1
STRESS TEST RESULTS – MACRO STRESS TEST BASELINE SCENARIO – RELATIVE CONTRIBUTION OF THE IMPACT ON CORE DOMESTIC BANKS' TIER 1 CAPITAL RATIO
(per cent)



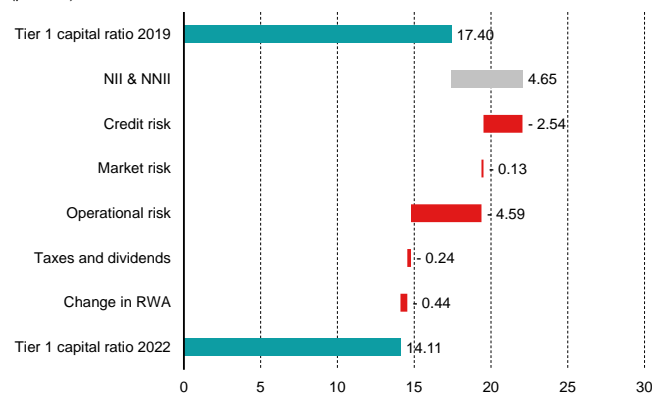
Source: Central Bank of Malta calculations.

Chart 3.2
STRESS TEST RESULTS – MACRO STRESS TEST BASELINE SCENARIO – RELATIVE CONTRIBUTION OF THE IMPACT ON NON-CORE DOMESTIC BANKS' TIER 1 CAPITAL RATIO
(per cent)



Source: Central Bank of Malta calculations.

Chart 3.3
STRESS TEST RESULTS – MACRO STRESS TEST ADVERSE SCENARIO – RELATIVE CONTRIBUTION OF THE IMPACT ON CORE DOMESTIC BANKS' TIER 1 CAPITAL RATIO
(per cent)



Source: Central Bank of Malta calculations.

against these assets. In addition to losses in interest income arising as a consequence of credit risk, NNII is also reduced as a result of the assumed decline in dividend income (100% in 2020 with a partial recovery to approach the 2019 level thereafter) and in fees and commission income (15% over the test horizon).

Core domestic banks would also experience losses arising from operational risk while non-core domestic banks experience losses arising from realisation of market risk, mainly from high unrealised losses on equities given that these make up a higher share of banks'

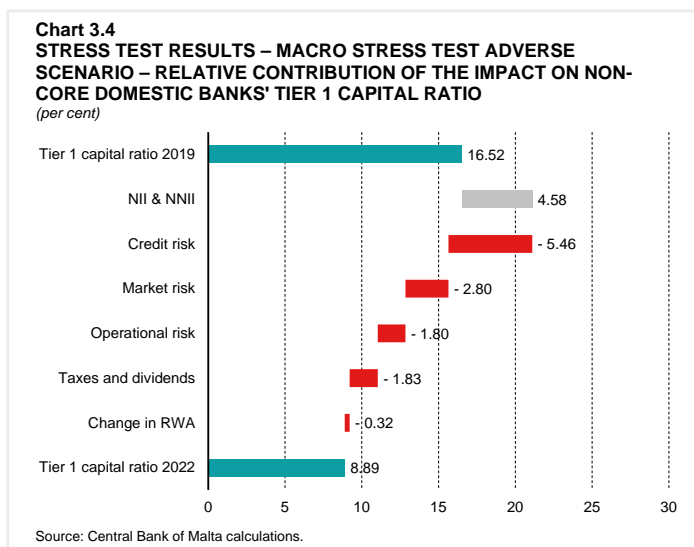
securities portfolios when compared to the core domestic banks' securities portfolio. Under this scenario, equity prices are assumed to drop by a maximum of 24%. These results do not consider the potential intervention of policy makers to mitigate the outcome of the adverse scenario by providing supplementary support measures.

The Tier 1 capital ratio for both bank categories remains well above the 6% minimum requirement. Moreover, at the individual bank level, all banks are assessed against their respective TSCR, which is the applicable benchmark for an adverse scenario under the SREP guidelines and consists of the common 6% Pillar 1 and individual bank Pillar 2 requirement set by the supervisor for December 2019. Although banks in general exhibit resilience under the adverse scenario, weaknesses are observed in a few small banks.

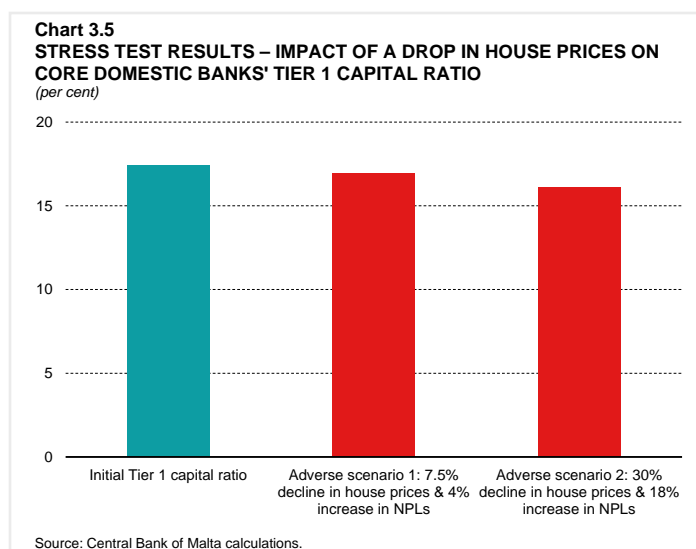
The results of the adverse scenario corroborate the findings of the ECB's Vulnerability Assessment which concludes that: "Overall, the results show that the banking sector is well positioned to take on the pandemic-induced stress impact, but capital depletion in the severe scenario could be material."

Sensitivity analysis: Impact following house price correction

To complement the MST framework, the following section presents the results of a sensitivity analysis which features an exogenous shock to house prices on the core domestic banks' balance sheets, given that these banks are the main providers of mortgages, over a one-year horizon. The magnitude of the shocks applied are different from those used in the MST framework as the sensitivity analysis assumes an instantaneous and more severe shock to house prices. The drop in house prices translates fully into a drop in property-related collateral values, which for core domestic banks is the predominant type of collateral backing loans. The magnitude of the assumed shocks to house prices is determined on the basis of the historical standard deviations of the house price index. While non-real estate related loans are not directly hit by this shock, the test applies a simultaneous increase in NPLs in the remaining sectors owing to the negative wealth effect (as explained below). The relationship between the shock to house prices and the increase in NPLs is determined via STREAM, the Bank's macroeconomic model, for both households and NFCs. While the MST framework adopts shocks to house prices of a magnitude consistent with the macro-scenario, this sensitivity analysis considers two adverse scenarios. The first applies an exogenous shock of 7.5%, approximately equal to one historical standard deviation of the house price index, paired with an increase in NPLs of 4%. The second more severe adverse scenario applies a 30% drop in house prices, equivalent to around four historical standard deviations, paired with an 18% increase in NPLs. Note that the shock to property prices is rather extreme given that it is applied to collateral values that are already discounted by haircuts that banks normally apply when approving loans.



The test considers that as collateral values decline, loan loss provisions would have to increase to satisfy the requirement of full coverage of property-related NPLs. Furthermore, the additional NPLs arising from negative wealth effects would also lead to an increase in loan loss provisions for the other loans. While the increase in provisions is charged to capital, the higher risk-weights applicable to newly classified NPLs affect the risk-weighted assets. Thus, the assumed shocks under this test would influence both the numerator (capital) and denominator (risk-weighted assets) of the Tier 1 capital ratio.



Results show that at the aggregate level, core domestic banks would comfortably withstand the severe shocks applied under both adverse scenarios. The core domestic banks' Tier 1 capital ratio would drop from 17.40% to 16.95% and 16.11% under adverse scenarios 1 and 2, respectively (see Chart 3.5). The post-shock Tier 1 capital ratio at the aggregate remains well above the regulatory minimum of 6%, even under the more severe adverse scenario. In fact, all core domestic banks would be able to absorb the impact and have a total capital ratio which exceeds their respective OCR.

The impact of this test is slightly higher when compared to the results published in *Financial Stability Report 2018* due to a reported decrease in loan collateralisation for NPLs and – to a lesser extent – a decrease in loan loss provisions. While the overall stock of NPLs has decreased, the share of NPLs to 'other financial institutions' has increased relative to the decline in NPLs from loans to households and non-financial corporations when compared to December 2018. This shift in sectoral composition of NPLs originates from the business model of a specific bank which in turn drives the aggregate decrease in loan collateralisation as loans to other financial institutions tend to have a lower collateral coverage ratio compared to the other two sectors. Thus, even though NPLs decline, the test results in a higher need for provisions to cover the unsecured portion of the loans. Nonetheless, all banks have ample capital buffers to withstand this assumed increase in provisions – even more so when considering the recent capital injections, with all core domestic banks reporting a higher Tier 1 capital when compared to the *Financial Stability Report 2018*.

3.2 Interest Rate Risk in the Banking Book

IRRBB refers to the potential risk arising from changes in the shape of the yield curve on the banks' interest bearing assets and liabilities, impacting the banks' earning capacity in the immediate term, and consequently their capital. The extent of the impact resulting from changes in interest rates is influenced, among others, by the interest rate type (fixed, variable or a combination of both), the currency denomination and the reset date of the interest-bearing assets and liabilities. While both effects complement each other and need to be taken into account, this framework assesses the impact of changes in interest rates under different scenarios in terms of the banks' NII and capital.

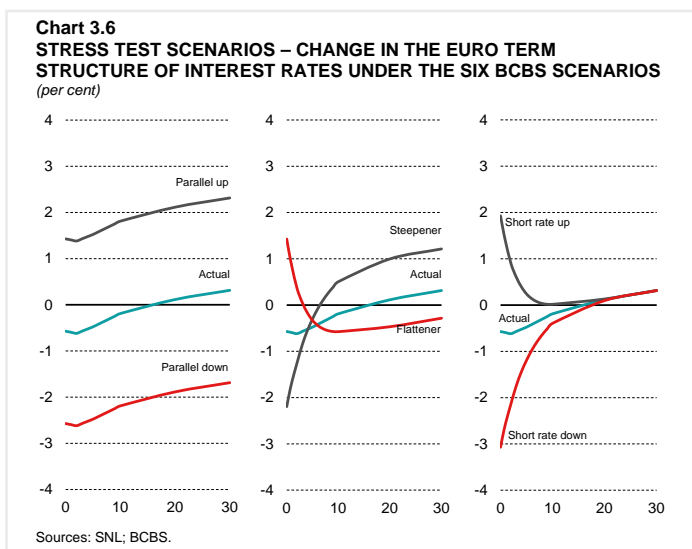
Due to the current low interest rate environment, a number of international and national supervisory authorities have defined regulatory requirements for the measurement and management of interest rate risk. In 2016, the Basel Committee on Banking Supervision (BCBS) issued [standards](#) for IRRBB, while in 2018, the European Banking Authority (EBA) published [guidelines](#) 'on the management of interest rate risk arising from non-trading book activities'.⁸ In early 2020, the EBA launched the 2020 EU-wide stress test exercise,

⁸ In its [2017 sensitivity analysis](#) of interest rate changes on the banks' banking books as part of its annual SREP, the ECB also based its hypothetical shocks on the BCBS standards.

which for the first time included a 'low-for-long' interest rate environment, involving a recession with low or negative interest rates for a prolonged period. However, following the outbreak of COVID-19, the EBA has decided to postpone the EU-wide stress test exercise to 2021.

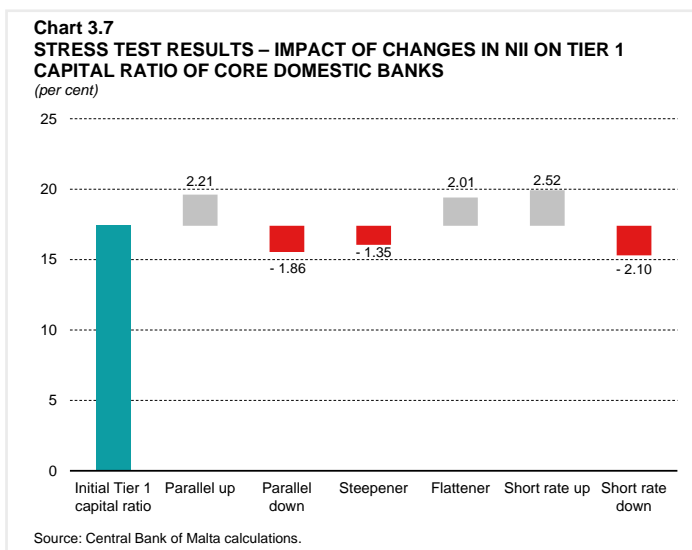
This test quantifies the impact of six different interest rate shocks as prescribed in Annex 2 of the BCBS standards. These scenarios consist of a *parallel shift upwards and downwards* of the yield curve as at the reference date, an *increase and a decrease in the short rate* end of the curve and two 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. These scenarios are comprehensive enough in assessing any potential movements in interest rates also as a response to the COVID-19 pandemic. Only euro, Pound Sterling (GBP) and US dollar (USD) are being considered as the material currencies in which the banking book is denominated, the latter two being the most relevant currencies, other than euro, for all three banking categories. Indeed, 99% of the banking book of core domestic and non-core domestic banks and 92% of the banking book of international banks is denominated in these three currencies, with euro being the most relevant currency representing 90%, 69% and 71% of the banking book of these three bank categories, respectively. Chart 3.6 shows the shift in the euro term structure under the six different tested scenarios as at December 2019. The GBP and USD yield curves would experience similar shifts under the respective scenarios.



The framework tests the impact of IRRBB on NII over a 12-month horizon and assumes a static balance sheet, so any instruments that mature within the horizon are rolled over with similar instruments at the prevailing interest rates in the respective scenarios. Charts 3.7 to 3.9 present the impact of the six scenarios on the Tier 1 capital ratio for core domestic, non-core domestic and international banks, respectively, following the application of the corporate tax rate of 35%.⁹

As illustrated in these charts, the *short rate down* would have the largest negative impact on the core domestic and international bank categories, while the *parallel down* scenario would have most impact on the non-core domestic banks. Under the *short rate down* scenario, the Tier 1 capital ratio would drop from 17.40% to 15.30% and



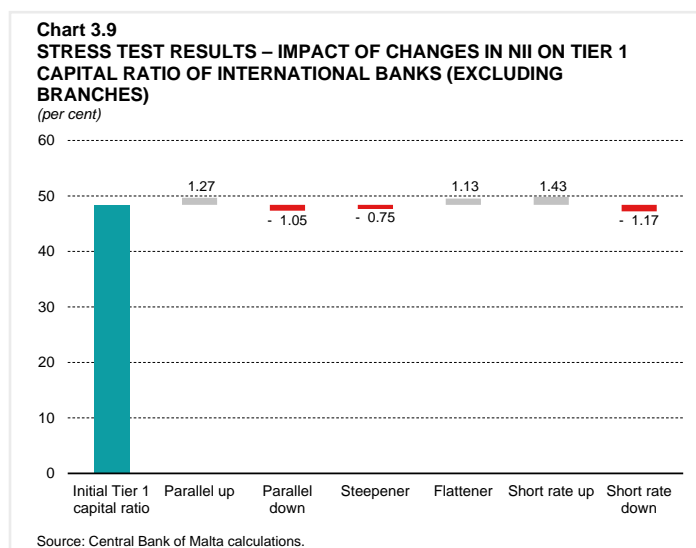
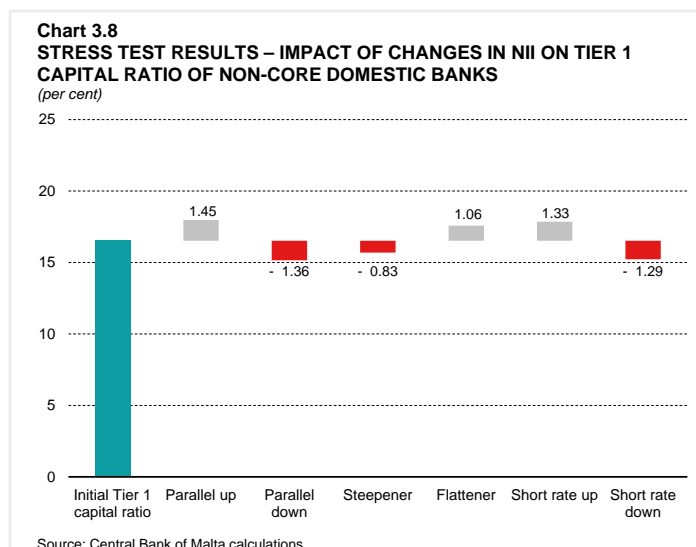
⁹ Banks may apply a lower tax rate if in previous years they have accumulated deferred tax assets.

from 48.40% to 47.23% for the core domestic and international banks, respectively, while under the *parallel down* scenario the Tier 1 capital ratio for the non-core domestic banks drops from 16.52% to 15.16%. The post-shock Tier 1 capital ratios at the aggregate remain well-above the regulatory minimum of 6%, even under the most severe scenarios that would hit banks the most. In fact, all banks would be able to absorb the impact and have a total capital ratio which exceeds the respective OCR following the largest negative impact.

Given that most banks hold the majority of their interest-bearing assets in loans and advances which are repriced immediately, and fund their business mainly via open maturity deposits, shifts in the short end of the yield curve would influence banks the most. In addition, the banks' current balance sheet structure would allow them to gain from potential increases in interest rates. While loans are repriced immediately, a large share of deposits are with an open-ended maturity and, to a lesser extent, maturing within the year, which attract 0% or very low interest rates. Indeed, 84%, 87% and 68% of deposits of core domestic, non-core domestic and international banks, respectively, mature within one year.

The impact of changes in the interest rates was also measured in terms of the movements in the net interest margin (NIM), defined as the difference between interest income and interest expense divided by total interest-bearing assets. For the NIM, the impact of changes in interest rates is taken at pre-tax as these scenarios affect the total NII in full, while taxes are only deducted prior to charging the resulting impact on the Tier 1 capital. Under the most severe scenario for each of the three bank categories, the NIM would drop from 1.84% to 0.22%, from 1.38% to -0.39% and from 9.95% to 8.32% for the core domestic, non-core domestic and international banks, respectively. These results have to be seen within the context of the severity of the yield curve shocks being assumed which pushes the current low interest rates considerably further into negative territory.

Conversely, the major positive impact would be from the *short rate up* for the core domestic and international banks and the *parallel up* scenario for the non-core domestic banks. Under these scenarios, the Tier 1 capital ratio would increase from 17.40% to 19.93%, from 16.52% to 17.93% and from 48.40% to 49.83% for the core domestic, non-core domestic and international banks, respectively. In the scenarios with the



largest positive impact for each of the three bank categories, the NIM would increase from 1.84% to 3.80%, from 1.38% to 3.16% and from 9.95% to 11.93% for the core domestic, non-core domestic and international banks, respectively. Owing to the assumption of asymmetric pass-through for increases and decreases in interest rate assumptions (as applied in the MST), banks are assumed to react sooner to a positive shift in the yield curve when compared to downward interest rate shocks.

SPECIAL FEATURE: COVID-19 – ASPECTS OF FINANCIAL SECTOR RESILIENCE

Introduction¹

The global economic impact from the spread of the coronavirus (COVID-19) is pushing economies into recessions of uncertain magnitude and duration unseen in recent history. In June 2020, the IMF estimated that the world economy is likely to shrink by a stark 4.9%, which is by far worse than the peak of the Global Financial Crisis.² The impact on the euro area's economy is much more pronounced with economic activity forecasted to contract by 10.2%. Many countries took the measures necessary to contain the spread of the pandemic by closing borders, schools and non-essential services. Health authorities in some countries advocated other measures to contain the spread such as social distancing and a complete lockdown in some countries, while others advocated isolation for vulnerable people, in a bid to flatten the epidemiological curve and avoid overburdening healthcare systems. COVID-19 took its toll on the 'normal' social and economic life across the globe.

Malta was not immune to this pandemic. When it hit our shores, Malta took the necessary measures to contain as much as possible the virus spread, while limiting its social and economic implications. Being a small open economy, Malta is directly affected by foreign demand shocks – particularly in the services sector, especially within tourism. Apart from the direct impact following the closure of the sea and air ports, the ensuing fall in tourism demand had repercussions on most catering establishments, restaurants and bars – which had already reported a significant drop in sales prior to being shut down on Government's orders. Various activities were cancelled resulting in additional loss of revenue for the entertainment segment. The manufacturing industry was also hard hit, particularly due to supply-chain disruptions in source markets, but also due to a decline in world demand.

The economic effect of the pandemic is more aptly visible in consumption. While consumer demand for a range of essential goods trended upwards, demand for a number of other goods and services suffered. Locally-oriented businesses reacted to this falling demand and rising uncertainty by cancelling or postponing investment, while others embarked on a labour rationing response such as implementing a shorter work week schedule, as well as outright lay-offs. The measures taken by the Government to mitigate the impact on the labour market helped to contain the increase in the unemployment rate by just 0.7 percentage point between February and April 2020, up to 4.1%.

Apart from the direct impact on a number of economic sectors, COVID-19 is likely to have significant second-round effects on various other sectors of the economy. The pandemic is also testing the financial stability of countries worldwide as a number of risks could materialise, simultaneously. The ECB's *May 2020 Financial Stability Report* highlighted that the pandemic has effectively impacted various aspects of economic activity, and at times interacted with pre-existing vulnerabilities such as overvalued asset prices, weak profitability, still-high sovereign indebtedness and increased liquidity and credit risks in the non-bank sector.³ While these already-present vulnerabilities had amplified the pandemic shock, the financial system proved to be broadly resilient in part due to the regulatory reforms instituted since the great financial crisis. Heightened risk aversion coupled with a broad economic fallout has also led to increasing demands on the financial system for funding and liquidity. Yet, the loss of income for borrowers and market uncertainty will also impinge on banks' asset quality and hence their profitability going forward.

This Special Feature provides an indication of some of the initial direct impacts on Malta's financial services sector as the outbreak continued to spread both locally and globally. Panel A attempts to shed light on the exposures of the financial services industry to COVID-19-sensitive sectors, while Panel B delves into the Central Bank of Malta's scenario analysis to assess banks' liquidity and solvency positions. Panel C sheds light on the measures the Central Bank of Malta, as the macroprudential authority, has put in place to ease the burden and limit the fallout from the pandemic. This Special Feature reflects the Central Bank of Malta's (CBM) perspective as of 20 June 2020.

¹ Prepared by Wendy Zammit, Head Financial Stability Surveillance and Research, and Andrew Spiteri, Manager within Financial Stability and Surveillance and Research. The authors would like to thank Alan Cassar, Chief Officer Financial Stability for his valuable suggestions.

² IMF, June World Economic Outlook. <https://www.imf.org/en/Publications/WEO/Issues/2020/06/24/WEOUpdateJune2020>

³ <https://www.ecb.europa.eu/pub/financial-stability/fsr/html/ecb.fsr202005~1b75555f66.en.html>

Panel A: The Financial Sector's Exposures to Hard-hit Sectors⁴

Some economic sectors are more prone to direct effects from the COVID-19 pandemic and hence are considered to be more sensitive, with their business models dented by low cash flows, which in turn affected their profitability and debt repayment capabilities. For the purpose of this Special Feature the productive sectors of the economy most sensitive to COVID-19 are deemed to be:

- NACE C: Manufacturing
- NACE F: Construction
- NACE G: Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles
- NACE H: Transportation and Storage
- NACE I: Accommodation and Food Services Activities
- NACE J: Information and Communication
- NACE L: Real estate
- NACE M: Professional, scientific and technical activities
- NACE N: Administrative and Support Service Activities
- NACE P: Education
- NACE R: Arts, Entertainment and Recreation
- NACE S: Other Service Activities.

The ECB's *Financial Stability Report* identified manufacturing, wholesale and retail trade, transportation, accommodation and food services, as well as arts and entertainment as COVID-19 sensitive sectors. The above list was, however, further augmented by those sectors identified in Malta Enterprise's wage supplement scheme, as well as those sectors which resorted more prominently to moratoria on their lending following the introduction of the Central Bank of Malta Directive No. 18.

The Financial Sector Environment: Strengths and Weaknesses

The Maltese banking sector is facing this unprecedented shock from a relatively strong financial standing. Since the financial crisis, banks have strengthened further their capital buffers and continued to operate on the back of ample liquidity buffers, as customer deposits continued to flow in even during the peak of the pandemic. This is further reaffirmed by stress tests carried out by the Central Bank of Malta in the course of its work, showing that – overall – banks remained resilient and capital levels above regulatory minima with only a few banks showing some vulnerabilities (refer to Chapter 3). Owing to the disruptions caused by the spread of the virus, the ECB's Single Supervisory Mechanism (SSM) has provided temporary relief to significant institutions from capital and liquidity requirements, to provide even more room for banks to operate in case of need.

While at the current juncture liquidity is ample, if the pandemic persists and the path to recovery is prolonged, the liquidity position of some banks could be somewhat affected as potentially some borrowers could suspend repayments and start exercising drawdowns of already-committed credit lines. A slowdown in the real economy can lead to repercussions on the banks' asset quality as provisioning levels would need to be stepped up – coupled with potentially write-downs of loans – going forward. Credit risk in the banking sector had been abating for a number of years, supported by improved creditworthiness of borrowers on the back of a growing economy, targeted supervisory measures and due to active efforts by banks to de-risk their balance sheets. As a result, the NPL ratio of the core domestic banks fell to 3.2% in 2019, down from 7.2% in 2015. Banks are therefore in a much better position and more resilient to deal with this exogenous shock. Nonetheless, in case of a prolonged drag on the overall economy, NPLs are likely to increase in some sectors, although the measures taken by the banking sector (such as moratoria), the supervisory authorities and Government, including the COVID-19 Guarantee Scheme, should help in cushioning the effect to some extent, even though most measures are for a limited period.⁵

⁴ Prepared by Wendy Zammit, Head Financial Stability Surveillance and Research, and Andrew Spiteri, Manager Financial Stability and Surveillance and Research. The authors would like to thank Alan Cassar, Chief Officer Financial Stability for his valuable suggestions.

⁵ The COVID-19 Guarantee Scheme was put in place by the Malta Development Bank to provide guarantees to commercial banks for the provision of financing for working capital requirements and should also help in easing the burden on banks.

Meanwhile, in terms of profitability, domestic banks have historically outperformed their European peers. However, in recent times, profitability has been waning on the back of the prolonged low interest rate environment, coupled with increasing regulatory costs, investment in IT systems and other administrative expenses. The additional challenges from the COVID-19 implications on the economy will undoubtedly put additional strain on profitability, particularly through lower revenues. The increased uncertainty surrounding the pandemic and lack of clarity on how long this is going to take could trigger a credit crunch, particularly for the productive sectors most sensitive to the COVID-19 spread mentioned earlier. From a supply point of view, this is dependent on the capacity afforded on banks' balance sheet and their ability to absorb any asset quality deterioration without having to limit credit to the real economy. Months of social distancing have also disrupted the capital formation process and, ultimately, labour participation and productivity growth, with implications on credit demand. Indeed, while credit lines for NFCs may increase in the short term for working capital purposes to offset the shortfall in cash flows, other forms of corporate credit may be postponed in view of possible lower fixed investment. Moreover, mortgage lending – which for a number of years was the main driver of credit growth – is expected to slow down as the property market came to a virtual standstill during the period of containment measures, exacerbating further the slowdown that had already started towards the end of 2019. Indeed, Bank Lending Survey results have shown that most of the respondents observed a drop in demand for loans for house purchases in the first half of the year, which is also corroborated by the month-on-month drops in outstanding mortgages for April and May 2020.

Furthermore, adverse developments in financial markets could also result in lower profitability driven by loss in value for the banks' portfolios especially on the marked-to-market segment of their securities holdings.

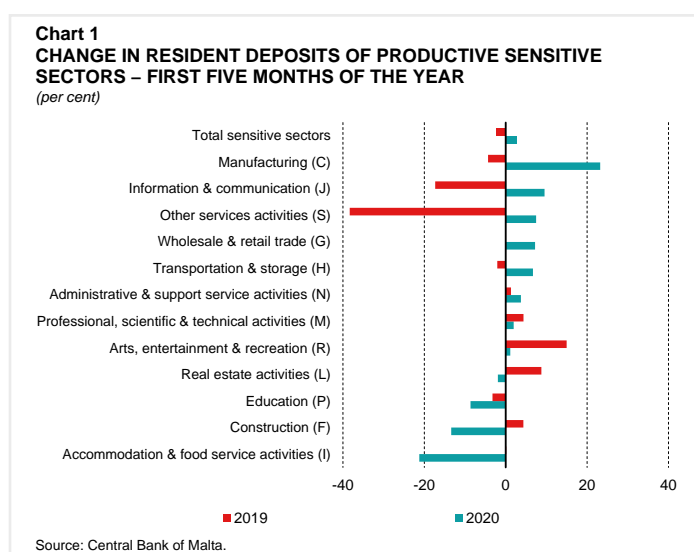
The rest of this Panel will take a static approach to the data gathered so far to be able to infer the likely exposure of the local financial sector to the aforementioned potential vulnerabilities.

Domestic Exposure to Vulnerable Sectors of the Economy

Banks

Banks' deposit funding from the productive sectors most sensitive to COVID-19 contagion mentioned earlier amounted to €5.1 billion in December 2019. This dropped to €4.7 billion by May 2020, equivalent to 16.6% of overall deposits. The largest share of these deposits pertained to Maltese entities, which amounted to €3.9 billion in May 2020, almost entirely (94.5%) held with the core domestic banks. The latter financed almost a fifth of overall resident lending.

Despite the COVID-19 pandemic, resident deposits from the productive sectors most sensitive to the spread continued to flow in, and increased by 2.6% in the first five months of 2020 (see Chart 1). At a sectoral level, there are wide divergences with the manufacturing sector recording around 23% growth in deposits while the accommodation and food services sector recorded a drop of 21.2%. This divergence reflected, albeit partially, the asymmetric impact in both timing and intensity of the pandemic across economic sectors. Deposits from resident households have also continued to flow in the domestic banking system, as the postponement



of both spending on durable goods amid lower consumer confidence, and lower spending on recreational activities and other consumer goods given the partial lockdown, resulted in higher savings. Between January and May 2020, resident household deposits rose by almost €500 million (+4.0%), mainly reported in the months of March and April, where deposits rose by around €420 million. In the first five months of 2019, deposits had increased by €231.1 million (2.0%).

The banks' liquidity and funding position is strong. Indeed, should an extreme situation be considered where all deposits of the productive sectors most sensitive to COVID-19 be withdrawn, this should not cause any funding constraints on the core domestic banks, with the loan-to-deposit ratio for core domestic banks increasing by around 13 percentage points to about 73%, still below the 100% mark. The aggregate ample liquidity position is confirmed by the liquidity stress tests described in Panel B, however, vulnerabilities are detected for some banks due to the severity of the scenarios which are designed to assess systemic risk.

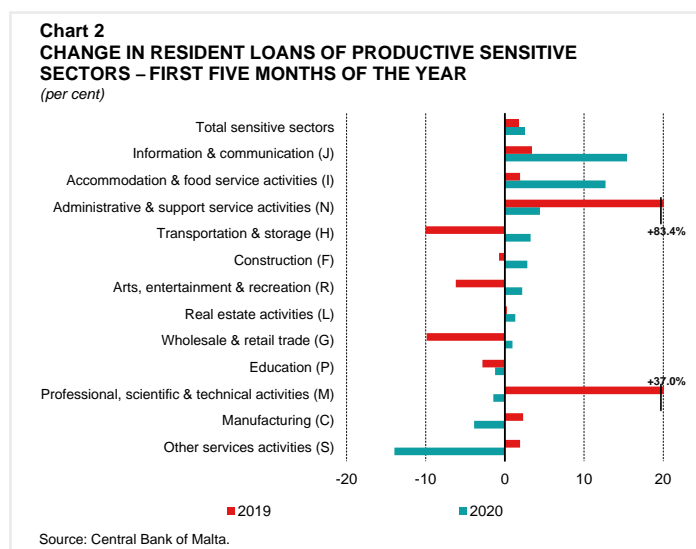
Loan portfolio

The banking system's credit exposure to COVID-19 sensitive productive sectors amounted to €8.5 billion by the end of 2019, accounting for around 44% of all loans granted, and equivalent to just above a fifth of total assets, remaining relatively unchanged as at the end of May 2020. Around 60% of these exposures are related to non-resident lending largely by international banks, which have limited or no links with the Maltese economy.

Resident lending to the same productive sectors was lower and pertained mostly to the core domestic banks. At around €3.6 billion, this stood at almost a third of the overall resident lending and just 8.7% of the overall assets of the banking sector in 2019, which amounted to €41.4 billion. At €3.4 billion, the bulk of these exposures were granted by the core domestic banks. These were equivalent to 13.8% of the core domestic banks' assets, and almost a third of their loan book. In the first five months of the year, resident exposures to these sectors grew by 2.4% to €3.7 billion, which was almost entirely driven by higher lending towards the accommodation and food service activities sector, which rose by 12.7% (see Chart 2). Resident lending to the household sector totalled €6.1 billion in December 2019, and is largely with core domestic banks. During the first five months of the year, it grew by 1.1%. Yet, less than 10% of household loans are subject to moratoria as per Panel C. The resilience of banks against an increase in NPLs from loans to the productive sensitive sectors and mortgages granted a moratorium is tested separately in Panel B.

Lending to non-resident productive sensitive sectors is largely concentrated in the transport and storage sector, accounting for almost 45% of total non-resident lending to productive sensitive sectors, mainly driven by a non-EU branch. Non-resident lending is also prevalent in manufacturing and construction sectors. Meanwhile, resident lending is concentrated in the real estate sector and represented just above a quarter of resident lending to sensitive sectors (see Chart 3). This was followed by lending towards the wholesale and retail trade sector, construction and accommodation and food services sectors.

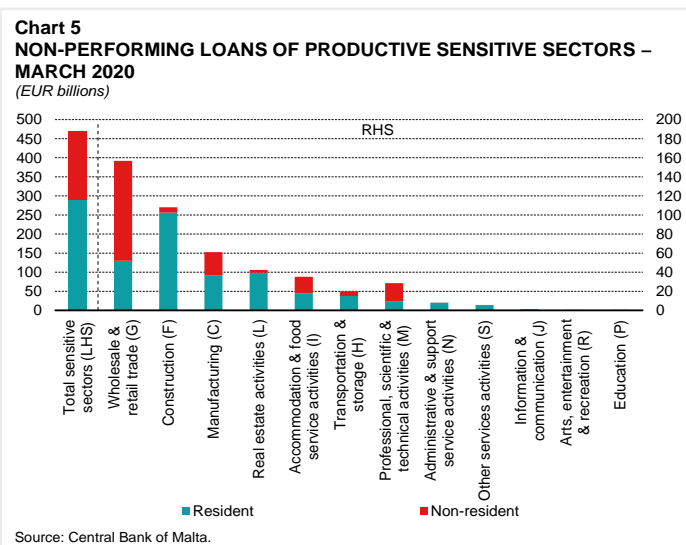
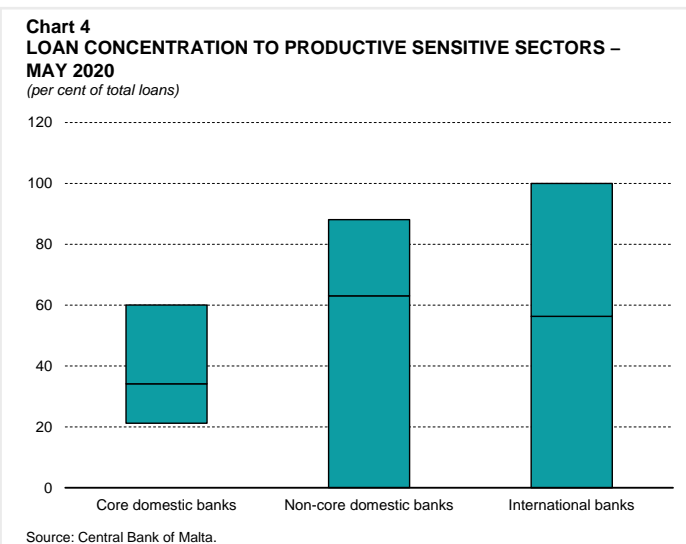
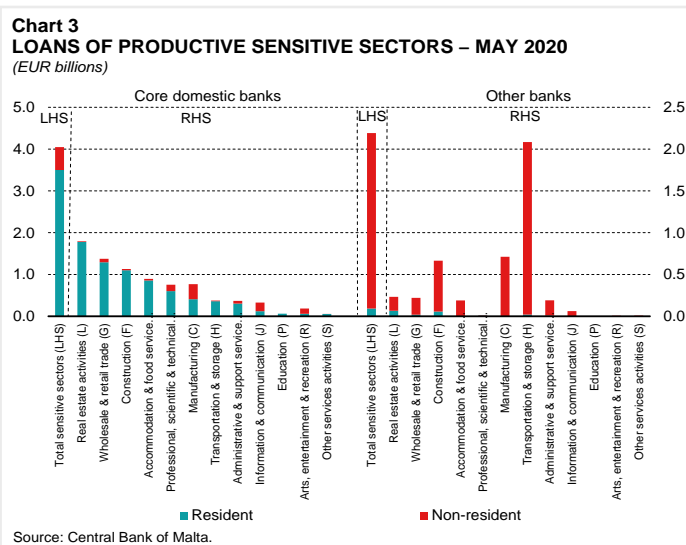
International banks are the most exposed to COVID-19 sensitive productive sectors, which on aggregate accounted for around 65% of their loan portfolio. However, significant heterogeneity exists among this group of banks, with some reporting no loans to these sectors, while others are entirely



exposed, also in view of their limited loan portfolio. The median international bank reported an exposure of 56.3% of their loan portfolio (see Chart 4). Non-core domestic banks' aggregate exposure stood at 48%, ranging from almost nil to around 88%, with a median level of just above 63%. Meanwhile, core domestic banks are the least exposed with the aggregate exposure standing at 32.8%, close to the median of 34.2%, with the range spanning between 21.2% and 60.0%. This relatively low exposure, as well as the heterogeneity within the group, reflected the significant but diverging exposure to household lending which on average represents around half of the loan portfolio.

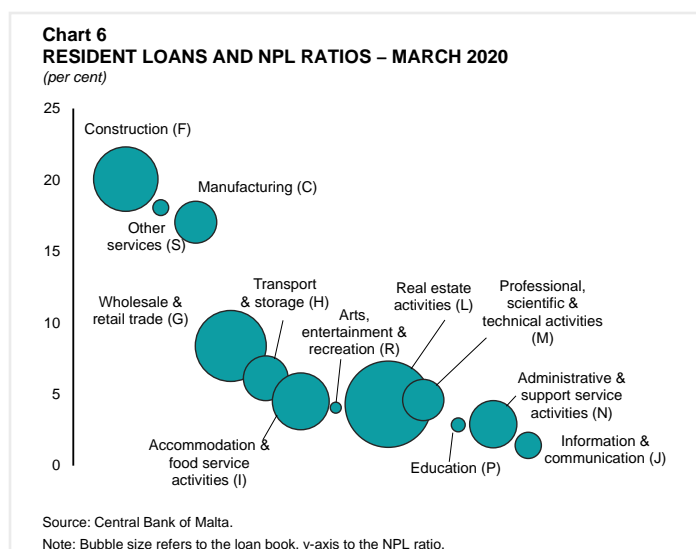
The level of NPLs could shed light on the vulnerability of each sector prior to the pandemic. Some of the sectors prone to the pandemic shock also exhibited elevated NPLs, presenting a riskier exposure to banks going forward. NPLs in these sensitive sectors amounted to around €470 million in March 2020 with around 38% being non-resident NPLs. Around 60% of the non-resident NPLs pertained to the wholesale and retail trade sector (see Chart 5).

Focusing on the resident element, in absolute terms, resident NPLs were mainly in the construction sector, followed by the wholesale and retail, real estate and manufacturing sectors. The average resident NPL ratio for COVID-19 sensitive sectors stood at 8.2% in March 2020 compared to the overall resident NPL ratio of 7.7%. Nevertheless, throughout the years, significant improvements were reported by a number of sectors, with the average NPL ratio for the sensitive sectors dropping from 9.9% in 2018, mainly driven by the real estate and construction, with the manufacturing



and accommodation sectors also reporting noticeable drops in NPLs.

Chart 6 combines the size of the loan portfolio with the corresponding NPL ratio for each vulnerable sector, to shed light on the magnitude of domestic banks' exposures at risk from the pandemic. As can be seen in the chart the construction and manufacturing sectors and to a lower extent wholesale and retail sector, among others exhibit an elevated NPL ratio, with local banks also having significant exposure in terms of their loan portfolio.



Going forward, as the economic slowdown by the COVID-19 pandemic is set to have a further impact, asset quality may deteriorate for a number of sectors, with the risk of reversing the improving trend recorded in the past few years.

Investment portfolio

Banks are also exposed to these productive sensitive sectors through their securities portfolios. The rapid spread of COVID-19 took markets by surprise and left its mark, although stock markets have recovered somewhat since the start of the pandemic. Volatility, as determined by the VIX index, reached all-time highs as investors fled to safety. Asset valuations plunged but the extent of the impact on the banks' portfolios is largely dependent on their positioning and the extent to which they are valued at AMC or at FV through other comprehensive income. Although global equity markets have recovered somewhat, aided by central banks' timely actions as well as fiscal support, high uncertainty still lingers as the pandemic continues.

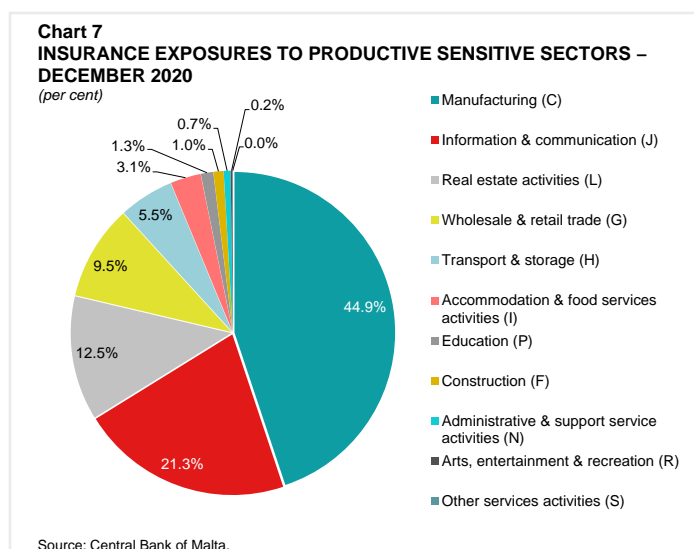
Domestic banks held €8.5 billion in debt securities as at the end of March 2020, equivalent to around a fifth of the overall assets. Of these, almost 40% are marked as available for sale, and hence susceptible to affect their P&L through market fluctuations. Direct exposures to the productive sensitive sectors are limited, as around 70% are invested in government bonds or supranational organisations, whereas around 27% are invested in financial sector-related bonds. The remaining 3.4% are invested in non-financial private sectors, of which around 3 percentage points pertain to productive sensitive sectors, largely in the professional, scientific and technical activities, and transportation and storage sectors. Around half of such holdings are rated as low or sub-investment grade bonds, with around a third rated as medium, while about 15% are high-investment-grade bonds, mainly reflecting bond holdings of non-EU branches.⁶ Debt securities of the core domestic banks represented 21.1% of their total assets. Exposure is also predominantly held in government bonds (around 60% of total debt securities), followed by financial sector-related bonds (approximately 35%). Non-financial corporate bonds accounted for the remaining 5% of total debt securities holdings, of which around four fifths pertained to COVID-19 sensitive sectors. The latter are largely medium- or high-rated bonds, representing around 55% and 20% respectively, with the rest held as low or sub-investment grade bonds.

Yet, while the direct effects of holding securities in sensitive sectors are limited in terms of volumes, market movements could affect the banks' entire portfolio, for example through increased volatility in the markets, more so for those securities which are booked at FV rather than at original purchase cost.

⁶ Investment-grade bonds carrying a rating of AA- or above are regarded 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+. Sub-investment grade bonds are rated lower than BBB.

Domestically-oriented Insurance Companies

The pandemic is also leaving its imprint on the insurance sector. While insuring against catastrophic events such as harsh weather conditions and other natural disasters has become the norm, insuring against a pandemic is less common. Businesses are inclined to insure against interruption of their activities, but such policies tend to exclude pandemic coverage, highlighting a business line which may grow in the future. Yet, the COVID-19 era has made it harder for insurers to assess and accurately model the risks that they take on, coupled with potential valuation losses on their securities portfolios. In the three months of social distancing, evidence showed that claims for road accidents halved, aiding the bottom line of insurers but on the other hand cash flows for other business lines could be affected due to delays in receipt of premia as the economy came to a virtual halt, and increased claims for business interruption.



Exposures by domestically-oriented companies to the productive sensitive sectors amounted to almost €563 million as at December 2019, equivalent to almost 15% of their overall assets. Of these, around €102 million pertained to resident entities, around four-fifths of which were held in equities with the majority of the rest held as debt securities. Of the debt securities, around 45% are low-investment-grade, with approximately another 30% medium-rated. Around 8% are high-investment-grade with the remainder either sub-investment or unrated. At a sectoral level, the largest exposure is towards the manufacturing sector, amounting to €252.5 million, followed by the information and communication sector (see Chart 7).

Overall exposures are mainly concentrated within the life undertakings. At around €522 million, these accounted for about 16% of assets. Exposures by non-life undertakings were more limited, amounting to €40.2 million, equivalent to 8.7% of total assets.

Initial estimates indicate that in the first quarter of 2020, the prevailing market conditions resulted in valuation losses for a number of insurance companies, in relation to securities holdings, although this may have improved as markets recovered in the second quarter of the year.

Domestically-oriented Investment Firms

The Financial Stability Board highlighted that the COVID-19 pandemic has unearthed a number of vulnerabilities in the funds industry as financial markets went into a free fall with dramatic falls in asset prices.⁷ Some market reactions were amplified by the need for investment funds to sell assets to meet large outflows as investors tried to realise their gains.

Domestically, based on security-by-security (SBS) data, debt securities of the productive sensitive sectors held by the domestically-oriented investment funds amounted to just above €100 million.⁸ These amounted to 7.6% of overall debt securities, equivalent to 3.9% of assets. Such securities mainly pertained to the manufacturing and administrative sectors (see Chart 8). Meanwhile, equities of COVID-19 sensitive sectors amounted to €137.5 million, equivalent to 14.7% of all equity holdings, and just around 5.4% of assets.⁹

⁷ <https://www.fsb.org/wp-content/uploads/P150420.pdf>

⁸ SBS data for debt securities represent 94.0% of total debt securities holdings.

⁹ SBS data for equity holdings represent 66.1% of total equity holdings.

Such equities were mainly related to the information and communication sector, manufacturing, transport, and retail and wholesale trade sectors. As a result, total exposures to the productive sensitive sectors add up to 9.3% of assets.

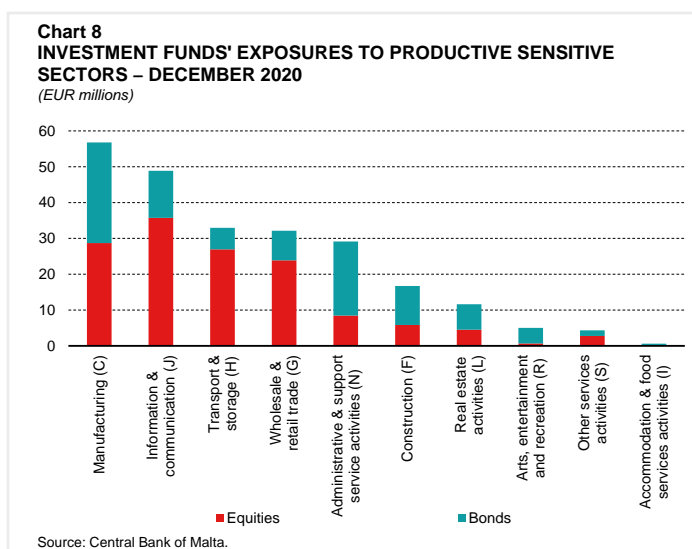
From discussions held with local fund managers, it appears that there were no abnormal redemptions during the first quarter of the year.

Conclusion

The global economic impact from the COVID-19 related disruptions is expected to be significant. However, policymakers in the fiscal, monetary, micro- and macroprudential spheres took immediate actions to limit as much as possible the economic fallout from the pandemic while at the same time supporting economic recovery. The policy responses also helped the financial system to withstand the impact of the economic downturn.

The Maltese banking sector is facing this shock from a strong financial standing. It operates on the back of ample liquidity buffers and is generally well-capitalised. The resilience of the banking sector is further reaffirmed by stress tests carried out by the Central Bank of Malta, which show that in a severe adverse scenario, overall, banks remained resilient with capital levels above regulatory minima, and only a few small banks showed some vulnerabilities.

Prior to the pandemic, overall bank liquidity was ample and this continued to rise given that savings continued to increase during the pandemic. If the spread of COVID-19 persists and recovery is prolonged, certain banking models could come under pressure for liquidity owing to suspended repayments and drawdowns of already committed credit lines. COVID-19 will have an impact on the extent of new credit and banks' asset quality with a potential increase in provisioning levels and write-downs. The latter together with a prolonged low-interest rate environment would affect negatively banks' future profitability.



Panel B: Stress Tests on Banks' Liquidity and Solvency Positions¹⁰

This panel aims to assess the banks' liquidity and solvency positions following the potential materialisation of specific adverse scenarios emanating from the COVID-19 pandemic. This panel also complements the stress tests featured in Chapter 3, particularly the MST framework. Indeed, in order to have a more comprehensive picture of the impact from the evolution of the COVID-19 pandemic over a three-year horizon, the MST framework was run to assess the impact of changes in the macroeconomic and financial environment on banks' balance sheets under a baseline and an adverse scenario.

This Panel features a number of sensitivity tests based on March 2020 data aimed at assessing resilience against hypothetical adverse outcomes in the short term. The banks' liquidity position is tested against (i) a bank-run type scenario, (ii) the standard adverse scenarios simulating higher outflows during the 30-day horizon of the LCR framework, and (iii) the impact of additional scenarios testing partial or full withdrawal of commitments under the LCR framework. Furthermore, the banks' solvency position is tested against a potential deterioration in the credit quality of banks' debt securities portfolio, and a hypothetical sensitivity analysis in which NPLs in the non-financial corporate sectors most vulnerable to the pandemic and mortgages would increase, tested in isolation as well as combined together.

Scenario analyses: Banks' Liquidity Stance

While at the reference date the public was urged to make payments using contactless debit or credit cards, and to engage in social distancing as a preventive measure, the uncertainty could have triggered higher deposit outflows. Moreover, the disruption of the performance in the productive sensitive sectors identified in Panel A and the possibility of other sectors being affected could have caused a strain on banks' liquidity profile. In this regard, the Central Bank of Malta assesses banks' liquidity position on a regular basis by means of two frameworks which have been extended to account for COVID-19 adverse repercussions.

Persistent deposit withdrawals

The persistent deposit withdrawals (PDW) framework assesses whether individual banks' liquidity buffers of the highest quality are sufficient to meet the assumed liquidity outflows arising from a bank-run type scenario. The framework uses March 2020 data and considers extreme shocks to the deposit outflows over a period of five days and the subsequent three weeks, and tests whether the shocked banks' counterbalancing capacity (CBC) is sufficient to meet the outflows. The CBC is defined as the quantity of funds at the banks' disposal to meet liquidity requirements, and is composed of, *inter alia*: cash, excess on their reserve requirement with the Central Bank of Malta, and funds raised following the sale of marketable securities. Under this test, a bank would fall short if the outflows on a specific day/week would exceed the available CBC.

The framework sources data from prudential reporting templates and makes use of granular information on banks' bond holdings complemented by market information to assess individual banks' counterbalancing capacity.

Two scenarios are considered. Under the first scenario, banks are allowed to obtain funding from standard Eurosystem monetary policy operations only against securities that were pledged with the ECB as at the reference date.^{11,12} Under this scenario, banks would have to sell the remaining FV securities at fire sale prices.¹³

¹⁰ Prepared by David Stephen Law, Senior Quantitative Analyst within Policy Crisis Management and Stress Testing Department, and Kirsten Abela, Quantitative Analyst within Policy Crisis Management and Stress Testing Department. The authors would like to thank Christine Barbara, Manager within Policy Crisis Management and Stress Testing Department, and Alan Cassar, Chief Officer Financial Stability, for their valuable suggestions.

¹¹ Eligible securities refer to securities that satisfy the requirements to be pledged as collateral for Eurosystem monetary operations.

¹² Securities pledged with the ECB are subject to a liquidity haircut as per the Guideline (EU) 2019/1033 on the valuation haircuts applied in the implementation of the [Eurosystem monetary policy framework \(ECB/2019/12\)](#). The haircuts in the framework are regularly updated in line with revisions to the ECB framework.

¹³ Fire sale prices have been calibrated on the basis of market prices observed during the 2008 financial crisis.

Under the second scenario, banks can pledge all eligible securities with the ECB and sell the remaining FV securities at fire sale prices. This differs from the first scenario by also including other debt securities which are eligible and unencumbered. Given that the haircuts assumed for fire sale prices are higher than the valuation haircuts that would be applied by the ECB, this scenario results in banks having a higher CBC compared to the first scenario.¹⁴ Moreover, in view of the ECB's ongoing commitment to provide liquidity assistance, this scenario is deemed more plausible.

Under scenarios one and two, it is assumed that banks do not make use of their AMC securities to raise funds, unless these are pledged or eligible for Eurosystem monetary policy operations. Banks purchase AMC instruments to receive a regular stream of coupon payments and the final principal upon maturity rather than with the intention of making capital gains by selling them when prices increase. While this accounting treatment insulates these financial instruments from market risk, banks would be at a disadvantage given that – by way of extreme assumption in this test – these securities cannot be used to obtain liquidity. The framework considers a third scenario that would generate additional counterbalancing capacity for the banks that hold AMC securities, boosting further the excess liquidity presented in scenario 2. Under this scenario, banks are assumed to taint their AMC portfolio and convert all securities held at AMC to FV through other comprehensive income (FVOCI) to be able to sell these securities. Core domestic banks had a small decline in the share of securities accounted for as AMC, while for non-core domestic banks, shifts were noted in a few banks from holding securities at FV to those accounted for as AMC.¹⁵

Furthermore, under both scenarios it is assumed that the intragroup funding and interbank funding would be suspended and withdrawn for the duration of the stress period.

In terms of outflows, the extent of liquidity outflows from deposits is determined according to the term-to-maturity, as well as customer category. The shocks are comparable to the cumulative outflow rates applied in the SSM 2019 Liquidity Stress Test (LiST) over a five-day period and a four-week period, and are more severe than the adverse scenario and closer to the magnitudes applied in the extreme scenario.¹⁶

Tables 1 and 2 present the results of the PDW framework under both scenarios as at March 2020 and reveal that the three bank categories manage to survive the test with ample excess liquidity throughout the stress test horizon. In the more severe scenario (scenario 1), excess CBC drops to 56%, 52% and 71% for core domestic, non-core domestic and international banks, respectively. Nonetheless, despite the overall positive result, a few weaknesses can be observed in individual banks by design of the framework which simulates severe deposit outflows to assess systemic risk and applies significant haircuts to the available CBC.

Table 1
STRESS TEST RESULTS – IMPACT OF PERSISTENT DEPOSIT WITHDRAWALS –
SCENARIO 1, RESTRICTED ECB FUNDING, EXCESS LIQUIDITY TO TOTAL
COUNTERBALANCING CAPACITY

Scenario	Day 1	Day 2	Day 3	Day 4	Day 5	Week 2	Week 3	Week 4
Core domestic banks	85%	81%	77%	73%	69%	65%	61%	56%
Non-core domestic banks	84%	79%	74%	69%	65%	60%	56%	52%
International banks	89%	87%	85%	83%	81%	78%	74%	71%

Source: Central Bank of Malta calculations.

¹⁴ See Box 2 in the *Financial Stability Report 2015* for further detail on the methodology and haircuts applied in the PDW stress test. The haircuts for ECB eligible securities have since been updated in line with the current guidelines issued by the ECB which also include haircuts for assets with a floating coupon. Previously the guideline prescribed the same haircuts as assets with a fixed coupon type.

¹⁵ While this scenario is relevant for a few banks, the impact at bank category level is only marginally different from scenario 2 and thus the results are not being presented.

¹⁶ The [methodology of the LiST](#) was published on the SSM website on 6 February 2019 and was run by the ECB on a sample of the banks it directly supervises, including three domestic banks.

Table 2
STRESS TEST RESULTS – IMPACT OF PERSISTENT DEPOSIT WITHDRAWALS –
SCENARIO 2, UNRESTRICTED ECB FUNDING, EXCESS LIQUIDITY TO TOTAL
COUNTERBALANCING CAPACITY

Scenario	Day 1	Day 2	Day 3	Day 4	Day 5	Week 2	Week 3	Week 4
Core domestic banks	88%	85%	82%	78%	75%	72%	69%	66%
Non-core domestic banks	86%	82%	78%	74%	70%	66%	62%	59%
International banks	90%	88%	87%	85%	84%	80%	77%	75%

Source: Central Bank of Malta calculations.

LCR-based liquidity stress test

The second framework is the LCR framework which assesses the banks' ratio of high quality liquid assets (HQLA) to net cash outflows against a threshold of 100%.

The framework as introduced in the *Financial Stability Report 2018*, is run on a baseline and four adverse scenarios. The baseline scenario applies the benchmark haircuts and inflow/outflow rates as prescribed by the [European Commission \(EC\) Delegated Regulation \(EU\) 2015/61](#) (hereafter, LCR Delegated Regulation) and acts as a monitoring tool for the LCR as reported by banks. The adverse scenarios target higher outflows while assuming that the HQLA buffer remains unchanged. The first adverse scenario assumes higher outflow rates than those applied in the baseline scenario (approximately 1.5 times higher except for categories for which the LCR Delegated Regulation already applies a 100% outflow rate and hence cannot be increased further). The remaining three adverse scenarios combine these higher outflow rates with additional withdrawals of fixed-term deposits which have a contractual maturity exceeding the 30-day period covered by the LCR Delegated Regulation. These scenarios target deposits placed by either residents, non-residents or both, respectively, and were designed to assume that customers would be willing to forfeit any accrued interest to access their funds.¹⁷

In addition to these standard LCR scenarios, the framework is flexible in a way that it allows new scenarios to be designed. In the midst of the uncertainty created by COVID-19, both in terms of the impact and the duration of the pandemic, consideration is given to the liquidity stance of banks should struggling NFCs and households (the retail sector) avail themselves of any approved but unutilised credit, be it on existing loans, overdrafts or credit cards. In this regard, four additional scenarios were considered whereby banks experience a partial or full withdrawal of commitments to NFCs and the retail sector. Table 3 provides a description of these scenarios.

Table 3
DESCRIPTION OF BASELINE AND ADVERSE SCENARIOS

Scenario	Description
Baseline	Haircuts and outflow/inflow rates as prescribed by the LCR Delegated Regulation
Adverse:	
Scenario 1	Higher outflows compared to the LCR Delegated Regulation
Scenario 2	Scenario 1 with additional withdrawals of resident time deposits (>30 days)
Scenario 3	Scenario 1 with additional withdrawals of non-resident time deposits (>30 days)
Scenario 4	Scenario 1 with additional withdrawals from both resident and non-resident time deposits
Scenario 5	Baseline scenario with 50% withdrawal of committed facilities to NFCs
Scenario 6	Baseline scenario with 100% withdrawal of committed facilities to NFCs
Scenario 7	Baseline scenario with 100% withdrawal of committed facilities to retail, including mortgages
Scenario 8	Baseline scenario with 100% withdrawal of committed facilities to retail and NFCs

Source: Central Bank of Malta.

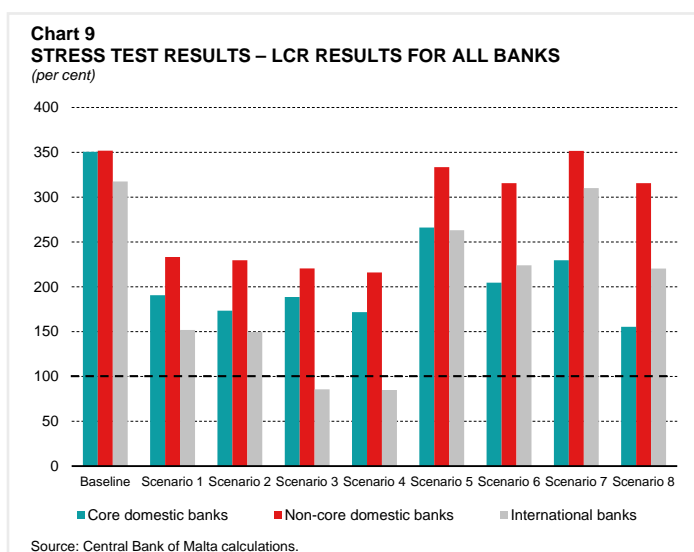
¹⁷ See Box 4 in the *Financial Stability Report 2018* for further detail on the methodology and haircuts applied in the LCR stress test.

As at March 2020, the LCR under the baseline scenario stood at 351% for core domestic banks, 352% for non-core domestic banks and 315% for international banks. Under adverse scenario 4, which considers higher outflow rates for all resident and non-resident time deposits, the LCR falls to 172%, 216% and 85% for core domestic, non-core domestic and international banks, respectively. On the other hand, under adverse scenario 8, which considers a 100% withdrawal of committed facilities for both the NFCs and retail sector, the LCR falls to 130%, 337% and 297% for the core domestic, non-core domestic and international banks, respectively.

By design of the adverse scenarios and the severity of the shocks applied, weaknesses are identified at an aggregate bank level for the international banks (under adverse scenarios 3 and 4) as well as at an individual bank level for all eight adverse scenarios, with some banks experiencing an LCR below 100%. It should be noted that in times of stress, banks are allowed to breach the LCR requirement as long as they provide a plan outlining ways in which the LCR would be restored. This is especially the case now, as ECB Banking Supervision has announced that it will allow banks to operate temporarily below the LCR as part of the [temporary capital, liquidity and operational relief in reaction to COVID-19](#) via a press release published on the 12 March 2020. Moreover, the MFSA has also issued a [Circular](#) to extend these same relief measures to all credit institutions under its direct supervision. Therefore, these vulnerabilities have to be seen in the context in which the supervisors have announced that they will temporarily tolerate dips in the LCR requirements, in view of the current extraordinary circumstances.

Chart 9 shows the results for the three bank categories under the baseline and adverse scenarios. By focusing on the first four adverse scenarios, the largest drop is observed under scenario 1 due to a general tendency for reliance on short-term funding. Indeed, scenario 2 is only minimally different from scenario 1, mostly affecting core domestic banks given their higher share of resident deposits. Under scenario 3 there is a further significant impact on the LCR of international banks due to their reliance on non-resident term deposits as a source of funding. Indeed, the international banks category falls below the 100% requirement under both the adverse scenarios 3 and 4 due to the additional outflows applied to non-resident term deposits.

With regard to additional scenarios targeting the withdrawal of committed facilities, the largest impact is observed for core domestic banks being the main providers of mortgages and loans to domestic NFCs. While the data distinguish between the NFCs and retail sectors, it is not possible to determine the extent of commitments which could be revoked by the banks. In addition, the full withdrawal from committed credit lines to retail customers includes also mortgages for which a sanction letter was issued. While prospective clients could have more than one sanction letter from multiple banks after shopping around for the best rates and loan conditions, no new property sale contracts could be signed in the immediate months following the reference date due to COVID-19-related measures. Nonetheless, the adverse scenarios assume that these temporary measures are not in place and all committed funds are available for withdrawal and show that all three bank categories remain well above the 100% LCR requirement.



Scenario analyses: Banks' Solvency

The uncertainty due to COVID-19 could affect the economic performance of a number of firms resulting in an increased risk of default on loans and debt securities issued by these firms. As a response, governments and policy makers have issued a number of fiscal, macroeconomic and financial measures with the aim of mitigating this risk, improving resilience of various sectors as well as economic agents and bolstering economic activity (refer to Panel C for further detail on the implementation of policy measures). For the purposes of stress testing exercises, even though firms might not default, the uncertainty surrounding the unfolding of COVID-19 could affect the pricing of their debt securities.

In this regard, the CBM has also conducted sensitivity tests to assess the impact on capital from a deterioration in the quality of the banks' holdings of debt securities as well as default on loans granted to the productive sensitive sectors as identified in Panel A and mortgages. The tests are carried out both to assess the effect on the portfolios in isolation as well as combined, as described below.

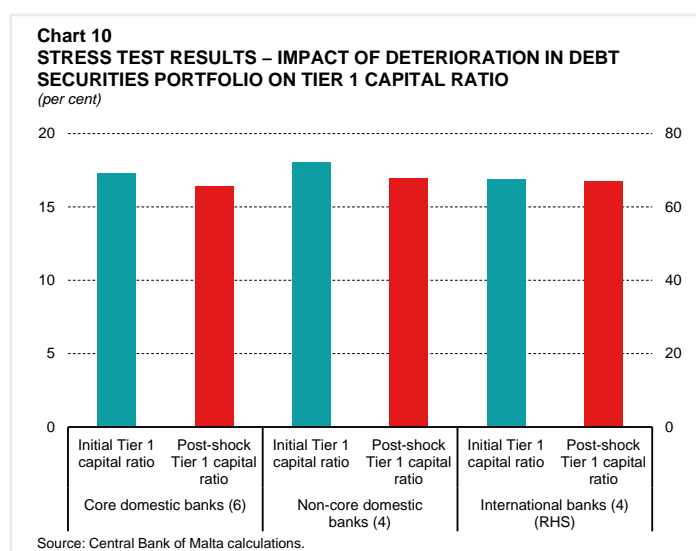
Credit quality deterioration in the debt securities portfolio

In order to assess the impact of a deterioration in the credit quality and valuation of debt securities from companies operating within the identified sensitive sectors, the traditional credit quality deterioration (CQD) sensitivity analysis as reported in previous *Financial Stability Reports* could be modified to focus on the performance of these sectors. However, the traditional sensitivity test already takes into account possible contagion across all sectors and quantifies credit risk for debt securities held at AMC against a three-notch downgrade in their official rating, while a widening of credit spreads and valuation haircuts are applied for non-sovereign and sovereign non-AMC debt securities, respectively. Thus, the test is run on all holdings of debt securities as at March 2020, rather than only on those considered as sensitive sectors as described in Panel A.

As at March 2020, following the credit quality deterioration of banks' debt securities portfolio, the resulting Tier 1 capital ratios remain comfortably above the 6% regulatory requirement for all banks. Chart 10 shows that in such a scenario, Tier 1 capital ratios would fall from 17.26% to 16.43%, from 18.05% to 16.91% and from 67.53% to 66.96% for core domestic, non-core domestic and international banks, respectively.

Credit quality deterioration in the loan portfolio

This sensitivity analysis has been designed to assess the impact on solvency from a hypothetical situation in which performing loans to the identified productive sensitive sectors (refer to Panel A of this Special Feature) and mortgages, which have been granted a moratorium (up to May 2020), would become non-performing.¹⁸ This test excludes the effect on remaining sectors not identified as sensitive, given that these represent a negligible portion of the NFC portfolio and would not significantly influence the results. Banks which have not granted any moratoria on loans to the identified sensitive sectors and mortgages

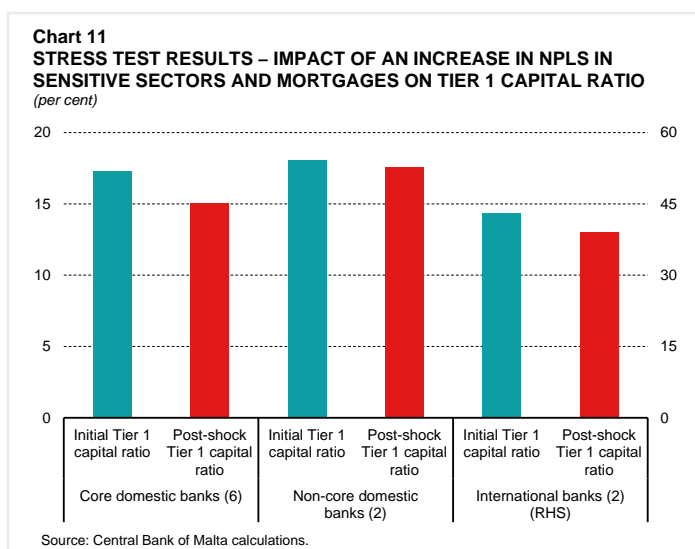


¹⁸ While the test refers to bank data as at March 2020, the uptake of moratoria has been calibrated at May 2020 to capture both moratoria granted by banks at the onset of the pandemic, as well as after the Central Bank of Malta issued [Directive No. 18](#) on 13 April 2020 to regulate moratoria granted to credit facilities in exceptional circumstances.

are excluded from the analysis.¹⁹ Upon classification of NPLs, the banks would need to increase their loan loss provisions based on the uncollateralised part of the loans. These provisions are charged to the P&L and in the case that operating profits provide only partial loss absorption, banks would need to release capital to offset the residual losses.

As at March 2020, the assumed increase in NPLs would have an impact on 10 banks, as only these banks have granted moratoria to the identified productive sensitive sectors and mortgages. Chart 11 shows that in such a scenario, Tier 1 capital ratios would fall from 17.26% to 15.07%, from 18.04% to 17.58% and from 43.10% to 39.02% for core domestic, non-core domestic and international banks, respectively – but remaining well above the regulatory Tier 1 capital ratio requirement of 6%.

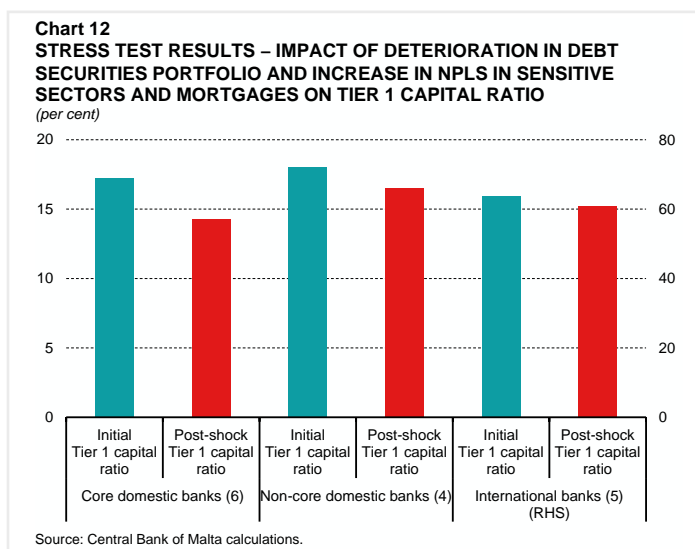
The impact on the Tier 1 capital ratio of the 10 banks in scope ranges between 0.08 and 7.37 percentage points, and is a worst case scenario assuming that none of the borrowers that were granted a moratorium would be in a position to honour their obligations.



Credit quality deterioration in the debt securities and loan portfolio

To further assess the banks' solvency positions, the previous two sensitivity analyses are combined to consider a deterioration in the credit quality of both the debt securities portfolio as well as an increase in NPLs from the loans granted to the productive sensitive sectors (identified in Panel A) and mortgages. Fifteen banks fall within scope of this test, with the same 14 banks included in the sensitivity analysis on their debt securities portfolio plus another bank which does not hold debt securities but has granted moratoria to loans in the identified productive sensitive sectors.

The quantification of the impact of the combined scenario would result in a drop in the Tier 1 capital ratio of 3.02, 1.52 and 2.78 percentage points for core domestic, non-core domestic and international banks, respectively. Chart 12 shows that their Tier 1 capital ratio would drop from 17.26% to 14.24%, from 18.05% to 16.53% and from 63.75% to 60.97%, respectively. The materialisation of the assumed shocks would therefore leave all three bank categories in a comfortable position to absorb potential losses when compared to the regulatory minimum Tier 1 capital ratio of 6%. These results are corroborated by the sensitivity analysis on the impact of an increase in NPLs in sensitive sectors and mortgages on Tier 1 capital ratios.



¹⁹ For this reason, the starting Tier 1 capital ratio of non-core domestic and international banks varies from that presented in the previous section and Chapter 3 due to the different sample of banks considered.

rated by the findings of the MST framework which by the end of the three-year test horizon show that core and non-core domestic banks would remain resilient to the pandemic-related scenario. Credit risk would be a major contributor to the overall losses experienced under the slower paced economic recovery assumed under the adverse scenario.

Conclusion

As part of the stress testing frameworks presented in Chapter 3, the CBM has run its MST framework based on scenarios tailored to the COVID-19 pandemic. The purpose of these scenarios is to focus on system-wide risks – thus idiosyncrasies, which are specific to individual institutions, may not be directly or specifically captured.

The scenarios applied in the MST consist of a baseline to account for the – at least partial – success of the containment measures introduced, and an adverse scenario assuming the implementation of additional measures to contain a second wave of infections that would further adversely influence the macroeconomic environment. Under the baseline scenario, it is observed that the overall losses experienced following the unfolding of the pandemic, which are characterised primarily by higher credit risk losses from both the holdings of debt securities and the loan portfolio (including mortgages), would affect non-core domestic banks more than core domestic banks due to their internationally-oriented business models. Moreover, even under the adverse scenario, core and non-core domestic banks manage to absorb the losses and satisfy the applicable capital requirements. The stress test results show overall resilience of the banking sector to the COVID-19-related scenarios, with capital depletion under the adverse scenario being more substantial for small individual banks. The results of the adverse scenario corroborate the findings of the ECB's [Vulnerability Assessment](#) for a sample of Eurosystem banks, which concludes that: "overall, the results show that the banking sector is well positioned to take on the pandemic-induced stress impact, but capital depletion in the severe scenario could be material."

Panel B of this Special Feature complements the stress test results presented in Chapter 3 with additional stress tests and sensitivity analyses run specifically to test resilience in terms of the liquidity and solvency position using data as at March 2020. While these data reflect at best the onset of COVID-19 and – in the meantime – banks are expected to be facing more dire conditions, a number of mitigation measures have been put in place to counteract the impact of the pandemic. Further detail on mitigation measures is provided in the next panel of this Special Feature.

With reference to the liquidity stress tests presented in this Panel, their results show broad resilience under both the adverse deposit withdrawals scenario (PDW framework) as well as the eight LCR adverse scenarios following an impact of higher outflows and a partial or full withdrawal of commitments. However, weaknesses can be observed in a few banks given the severe outflow rates applied to test for systemic risk. This is especially relevant for those banks that are reliant on short-term funding and further exacerbated for the category of international banks when these outflows are paired with withdrawals from non-resident term deposits.

When considering the PDW stress test, most banks would be able to survive an adverse bank-run type scenario for a protracted period extending beyond the one-month horizon. Vulnerabilities can be observed in some banks with regard to the LCR stress test. These vulnerabilities are to be expected given the severity of the assumed shocks in the respective scenarios, which are designed to assess systemic risk. Furthermore, these must be seen in the context of the current extraordinary circumstances and the banks' business models as a result of which it is expected that a few local banks would dip into an LCR lower than 100%. Such shortcomings are being tolerated during the crisis by the supervisors.

On the other hand, the solvency sensitivity analyses based on a deterioration in the credit quality of both the banks' debt securities portfolio and the increase in NPLs from moratoria granted on loans in the productive sensitive sectors and mortgages (tested individually and simultaneously) show an overall resilience in the banks' capital positions. The tests cover the entire debt securities portfolio and the loan portfolio (mortgages

and virtually all of the NFC loans portfolio as the productive sensitive sectors represent the main economic activities of NFC borrowers), respectively, and complement the findings of the MST by focusing on the short-term impact of specific asset classes.

Although the banking system in general appears to be resilient against the contemplated scenarios, stress tests are not to be construed as forecasts as they attempt to capture the effects of a contemplated scenario on banks' financial situation at a point in time. The duration and extent of the pandemic also remains unknown and thus any potential further deterioration in the macroeconomic environment would likely exacerbate the adverse impact on the results.

Panel C: The CBM's Policy Response to the COVID-19 Outbreak²⁰

The COVID-19 outbreak and the health measures taken to contain the pandemic presented a significant and unforeseen economic shock to businesses, as well as individual workers and households. Business disruptions have led to significant strains on cash flows and income, with some businesses experiencing a complete halt in cash inflows.

If left unaddressed, this temporary liquidity strain could lead to a forced fire sale of assets and result in the undue closure of otherwise solvent businesses. Indeed, as a result of business disruptions, some firms have found themselves in a position of temporary inability to service their bank lending, while others needed further financing for continued working capital needs. Persistent liquidity strains could also exacerbate the initial economic shock, and lead to a negative feedback loop. In the absence of adequate policy response, borrowers who were unable to continue servicing their debts would have otherwise defaulted, in accordance with the 90-days-past due criterion as specified in Article 178(1)(b) of CRR, or become forborne. Consequently, banks would be required to substantially increase prudential provisions to cover such losses, placing further strain on their profitability. Moreover, capital levels would be negatively impacted, thereby presenting an obstacle to the currently much needed bank lending capacity to continue financing economic activities in order to stimulate economic recovery. At the same time, affected borrowers seeking to obtain a mortgage on the back of the temporary reduced income will find it increasingly more difficult to meet the criteria stipulated in CBM Directive No. 16 'Regulation on Borrower-Based Measures.'

The ongoing work and policy measures that were introduced by the Central Bank of Malta, the ECB, European Supervisory Authorities, the MFSA and Government with the onset of the COVID-19 outbreak, played a crucial role in safeguarding financial stability in such circumstances. In exercising its macroprudential mandate, the Central Bank of Malta enacted a new Central Bank of Malta Directive No. 18 on Moratoria on Credit Facilities in Exceptional Circumstances, and also issued a Notice on the temporary easing of certain requirements of Central Bank of Malta Directive No. 16. Furthermore, the CBM issued Directive No. 17 on Business Continuity Measures concerning deposit and withdrawal of cash, deposit and encashment of paper-based instruments and provision of services through alternative delivery channels, and amended Central Bank of Malta Directive No. 8 on Monetary Policy Instruments and Procedures.

Measures adopted by the Central Bank of Malta

Amendments to Central Bank of Malta Directive No. 8 on 'Monetary Policy Instruments and Procedures'

The Central Bank of Malta initially amended CBM Directive No. 8 on Monetary Policy Instruments and Procedures on 20 April 2020 to implement Guidelines ECB/2020/20 and ECB/2020/21.^{21,22,23} The changes included collateral easing measures to facilitate Eurosystem counterparties in maintaining sufficient collateral in order to be able to participate in all liquidity-providing operations. Furthermore, the Governing Council of the ECB decided to temporarily increase its willingness to take on risks to support the provision of credit via its refinancing operations. In particular, the valuation haircuts applied to collateral were reduced by a fixed factor. Furthermore, national central banks could accept as collateral for Eurosystem credit operations marketable debt instruments issued by the central government of the Hellenic Republic.

²⁰ Prepared by Brendon Cassar, Economist within Policy Crisis Management and Stress Testing Department, and Joanne Ciantar, Analyst within Policy Crisis Management and Stress Testing Department. The authors would like to thank Stephen Attard, Head within Policy Crisis Management and Stress Testing Department, and Alan Cassar, Chief Officer Financial Stability for their valuable suggestions.

²¹ Central Bank of Malta Directive No. 8 on Monetary Policy Instruments and Procedures. Source: <https://www.centralbankmalta.org/file.aspx?f=437>

²² Guideline (EU) 2020/515 of the ECB of 7 April 2020 amending Guideline ECB/2014/31 on additional temporary measures relating to Eurosystem refinancing operations and eligibility of collateral (ECB/2020/21). Source: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020Q0515&from=EN>

²³ Decision (EU) 2020/506 of the ECB of 7 April 2020 amending Guideline (EU) 2015/510 on the implementation of the Eurosystem monetary policy framework and Guideline (EU) 2016/65 on the valuation haircuts applied in the implementation of the Eurosystem monetary policy framework (ECB/2020/20). Source: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020D0506&from=EN>

The Directive was further amended on 27 April 2020 to reflect the CBM's decision to reduce the minimum size threshold of domestic credit claims to €25,000 from €500,000.

The Directive was also amended on 18 May 2020, to implement Guideline ECB/2020/29.²⁴ The measures were aimed at mitigating the adverse impact on Eurosystem collateral availability of potential rating downgrades resulting from the economic fallout of the COVID-19 outbreak.

Together with the measures adopted in April 2020, these new measures aimed at ensuring that Eurosystem counterparties remain able to maintain and mobilise sufficient collateral in order to be able to participate in Eurosystem liquidity-providing operations and that therefore the Eurosystem is in a position to support the provision of credit to the euro area economy.

Notice on the amendments to Directive No. 16 'Regulation on Borrower-Based Measures'

The CBM also deemed it necessary to take additional measures to safeguard borrowers who have been negatively impacted by the COVID-19 pandemic and who may therefore be in a temporarily weaker financial position to obtain financing for purchasing RRE property. Furthermore, the COVID-19 pandemic caused serious disruptions in economic activity, including in the real estate market, particularly arising as a result of disruptions in banking and notarial services, increase in demand for cash buffers in such extraordinary times, and social distancing restrictions which had a negative impact on the search and negotiation processes between buyers and sellers.

As a result, on 1 June 2020, the CBM issued a Notice to amend Directive No. 16 on Borrower-Based Measures, which sets limits on the LTV ratio at origination (LTV-O), Debt-Service-to-Income (DSTI-O) ratio at origination, and term to maturity for RRE loans.^{25,26,27}

In light of potential temporary shocks on borrowers' income as a result of the COVID-19 pandemic, borrowers purchasing a second property might find it more difficult to meet the 25% deposit requirement applicable as from 30 June 2020 and might therefore be unable to obtain the necessary financing, thereby reducing mortgage credit availability for new property buyers. As a result, in order to provide the necessary relief to prospective Category II borrowers, the CBM granted an extension of one year in the applicable LTV-O ratio for such borrowers, which currently stands at 85 per cent, up until 30 June 2021. This would enable such borrowers to disburse a lower amount of cash, namely to continue with a down-payment of 15% rather than the 25% as that originally anticipated by the Directive as from July 2020.

In light of the above-mentioned temporary income shock suffered by borrowers, the Central Bank of Malta provided for a temporary easing in the applicable stressed DSTI-O ratio for both Category I and Category II borrowers. Lenders can, at their own discretion and provided that a number of conditions are met, grant new RRE loans with a stressed DSTI-O ratio higher than the limit set in the Directive of 40%. As a result, lenders would be temporarily able to provide new mortgage loans where stressed debt servicing could amount to more than 40% of their income, subject to certain conditions.

The Central Bank of Malta granted the concession on the stressed DSTI-O ratio for a period of six months, until 1 December 2020, and indicated that it is to be applied on a forward-looking basis over the whole life cycle of the respective RRE loan.

²⁴ Guideline (EU) 2020/634 of the ECB of 7 May 2020 amending Guideline ECB/2014/31 on additional temporary measures relating to Eurosystem refinancing operations and eligibility of collateral (ECB/2020/29). Source: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020O0634&from=EN>

²⁵ Notice – Directive No.16 'Regulation on Borrower-Based Measures' – COVID-19 Related Measures. Source: <https://www.centralbank-malta.org/en/news/79/2020/8823>

²⁶ Central Bank of Malta Directive No. 16 in terms of the Central Bank of Malta Act (Cap.204) – Regulation on Borrower-Based Measures. Source: <https://www.centralbankmalta.org/file.aspx?f=72401>

²⁷ Directive No. 16 distinguishes between two categories of borrowers – Category I and Category II Borrowers. Category I borrowers refers mainly to borrowers purchasing their primary residence while Category II borrowers refers to borrowers purchasing RRE property for secondary residence purposes or for buy-to-let. Details on the full definitions of both Categories can be referred to in paragraph 6 of the Directive available in the link as per preceding footnote.

Central Bank of Malta Directive No. 17 on 'Business Continuity Measures concerning deposit and withdrawal of cash, deposit and encashment of paper based instruments and provision of services through alternative delivery channels'

Following the advice of national health authorities for persons to remain indoors as much as possible, on 25 March 2020, the CBM issued Directive No. 17 on important measures concerning encashment of cheques to enable persons to avoid as much as possible visiting bank branches and other financial service providers, by depositing them through trusted third parties.²⁸ The measures were introduced after consultation with commercial banks as a temporary measure during the pandemic restrictions, and came into force on 26 March 2020. The Directive maintains banking services essential to the life of the community by setting minimum services to be provided by commercial banks and financial institutions, concerning:

- deposit, encashment and clearing of cheques, bank drafts and similar instruments;
- provision of services through alternative delivery channels;
- cheques marked as “only” for use by the beneficiary can be deposited by a trusted third party, subject to endorsement by both the payee and the third party;
- over-the-counter cash withdrawals from a deposit account associated with a payment card shall only be entertained if in excess of five hundred euro (€500).

Central Bank of Malta Directive No. 18 on Moratoria on Credit Facilities in Exceptional Circumstances

On 13 April 2020, the Minister responsible for public health, with the concurrence of and after consultation with the Minister for Finance and Financial Services, the Superintendent of Public Health, the CBM and the MFSA, and following consultation with the Malta Bankers' Association, published Legal Notice 142 on Moratorium on Credit Facilities in Exceptional Circumstances Regulation. The Legal Notice gave the right to those borrowers who were materially affected by the COVID-19 outbreak to apply for a moratorium of six months on their loans, subject to the fulfilment of the eligibility criteria. Such criteria were regulated via the CBM Directive No. 18, which is also aligned with the guidelines on legislative and non-legislative moratoria on loan repayments applied in the light of the COVID-19 crisis, issued by the EBA.²⁹

Features of Directive No. 18

Directive No. 18 determines the eligibility criteria of applicants with the first consideration being that the debt servicing capability of various borrowers from a wide variety of economic sectors would have been negatively impacted by the COVID-19 outbreak in a heterogeneous manner. Moreover, the moratorium is open to all retail and non-retail clients including non-financial corporates, micro, small and medium sized enterprises, self-employed, persons in employment and households, who were not in arrears and were meeting fully their commitments prior to 1 March 2020.

Loans granted prior to 14 April 2020 can be in scope of the Directive and the accompanying Legal Notice 142.³⁰ The effects of COVID-19 were materialising in Malta in March 2020 with the first case reported on the 7 of March. Thus, any difficulties in repayment or defaults which were specifically as a result of COVID-19 should have manifested only after March and not before.

Applications for a moratorium are to be made on a voluntary basis, which application deadline was originally planned to expire on 30 June 2020, but was later extended to 30 September 2020.³¹ Together with this application, obligors must present sufficient evidence to prove that their inability to continue servicing their debt is

²⁸ Central Bank of Malta Directive No. 17 in terms of the Central Bank of Malta Act (Cap. 204 of the Laws of Malta) – Business Continuity Measures concerning deposit and withdrawal of cash, deposit and encashment of paper based instruments and provision of services through alternative delivery channels. Source: <https://www.centralbankmalta.org/file.aspx?f=92791>

²⁹ EBA Guidelines on legislative and non-legislative moratoria on loan repayments applied in light of the COVID-19 crisis. Source: https://eba.europa.eu/sites/default/documents/files/document_library/Publications/Guidelines/2020/Guidelines%20on%20legislative%20and%20non-legislative%20moratoria%20on%20loan%20repayments%20applied%20in%20the%20light%20of%20the%20COVID-19%20crisis/882537/EBA-GL-2020-02%20Guidelines%20on%20payment%20moratoria.pdf

³⁰ L.N. 142 of 2020 Moratorium on Credit Facilities in Exceptional Circumstances Regulations, 2020: <https://legislation.mt/eli/ln/2020/142/eng/pdf>

³¹ See related press release on the following link: <https://www.centralbankmalta.org/en/news/14/2020/8832>

temporary and related to COVID-19. The evidence submitted is important for determining whether the issue is of temporary illiquidity and is a consequence of COVID-19 or an issue of longer-term insolvency.

The Directive also provides full flexibility to the borrower to be able to postpone temporarily interests and/or principal repayments, in part or in full. Thus, the borrower is able to adjust the repayments to its specific needs and can exit the moratorium before its expiry. During the period of the moratorium, interest continues to accrue. In line with this, in the 23 April CBM Communication, the CBM clarified that during the course of the moratorium, interest is to be accrued but not capitalised; in other words no interest compounding is to occur during this period.³²

The moratorium allows a degree of certainty for businesses and individuals alike to be able to plan their cash flow management, which up to now has been extended to 12 months for those borrowers that had applied up to 30 June 2020, and by six months for new applicants following June 2020.

Take-up of Moratoria up to May 2020³³

By the end of May 2020, the total value of loans subject to moratoria stood at €1.9 billion. Of these, 81% were granted to residents, largely by the core domestic banks and accounted for 10.2% of outstanding loans in the banking system.

Credit register data on the take-up of moratoria sheds light also on specific economic sectors that were hardest-hit by the COVID-19 pandemic. Table 4 ranks the sectors that were granted moratoria by the value of outstanding resident loans. The household sector attracted the lion's share of moratoria but these represented 9.8% of outstanding household loans.

Around 6,921 household loans were subject to a moratorium, of which 79% were mortgages to resident households. Non-resident mortgages subject to a moratorium were limited to just 1%. The rest were moratoria on consumer facilities, the bulk of which were to resident households (see Chart 13).

Table 4
RESIDENT EXPOSURES SUBJECT TO MORATORIUM – AS AT END MAY 2020
(number of loans; EUR million; percentage)

	Volume of loans ⁽¹⁾	Outstanding amounts ⁽²⁾	Share in sector's outstanding loans ⁽³⁾
Households	6,847	593.2	9.8%
Construction and real estate	487	293.3	19.4%
Accommodation and food service activities	370	194.4	45.7%
Financial and insurance activities	64	91.3	11.2%
Wholesale and retail trade; repair of motor vehicles and motor cycles	462	76.1	12.2%
Administrative and support service activities	72	76.1	23.0%
Professional, scientific and technical activities	81	62.6	20.2%
Manufacturing	148	44.7	21.3%
Information and communication	26	33.4	54.6%
Others	291	73.9	8.5%
Total	8,847	1,538.9	13.7%

Source: Central Bank of Malta.

⁽¹⁾ Number of loans subject to moratorium.

⁽²⁾ Outstanding amount of loans subject to moratorium as at end month, in EUR million.

⁽³⁾ The percentage of loans subject to moratorium in total outstanding loans held by the sector as at end of month.

³² <https://www.centralbankmalta.org/en/news/79/2020/8805>

³³ Prepared by Wendy Zammit, Head Financial Stability Surveillance and Research Department, and Denis Cecchini Butsugan, Inspector Credit Reference Agencies within the Statistics Department. The authors would like to thank Alan Cassar, Chief Officer Financial Stability for his valuable suggestions.

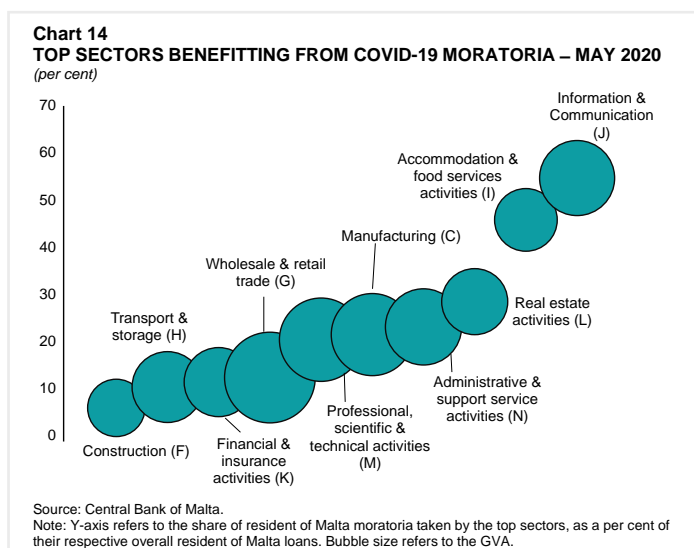
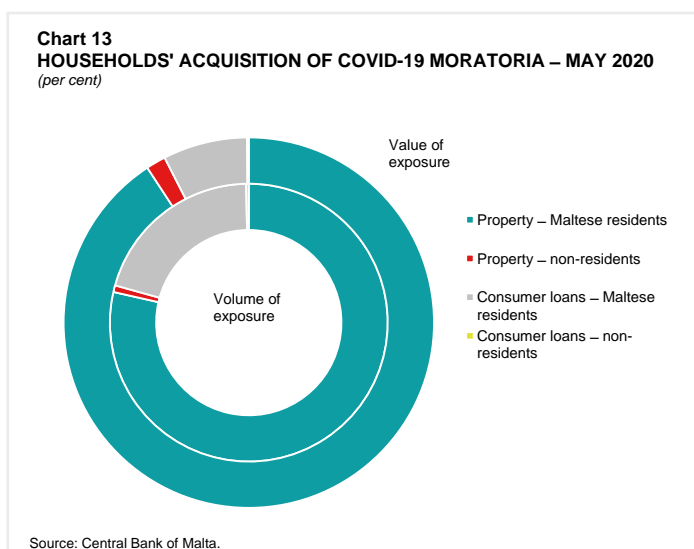
The real estate sector came to a virtual halt during the peak of the pandemic. In recent years, this sector has grown in importance with its share in overall gross value added standing at approximately 5% (see Chart 14). Up until May 2020, the related exposures subject to moratoria amounted to €258.7 million, accounting for some 28.3% of outstanding loans to the sector. Similarly, owing to social distancing, some of the projects suffered delays. A survey conducted by the Malta Association of Credit Management in May 2020 shows that 55% of respondents from the building and construction industry experienced no negative impacts from COVID-19 on their cash collection and cash flow to date.³⁴ However, 20% of the effected respondents noted that they failed to collect 40% – 60% of income that they used to collect in pre-COVID-19 times. Another 20% of respondents noted that they collected between 80% – 100% less than they used to. Indeed, 5.7% of outstanding loans to the resident construction sector were subject to moratoria.

The accommodation sector also suffered the brunt of the pandemic as airplanes were grounded, ports were closed, and hotels were shut down. Around €194 million of loans towards the accommodation sector

were subject to moratoria which accounted for 46% of outstanding loans towards this sector. The wholesale and retail trade sector was also affected with 12.2% of loans to this sector subject to a moratorium.

The professional, scientific and technical sector captures a variety of industries that offer expertise and provide services to other companies and even households. While some of these subsectors could continue providing their services remotely, their business was still affected negatively due to reduced cash flow and demand for their services, as other sectors were closed down. Some 81 loans were subject to a moratorium, equivalent to 20.2% of loans towards this sector.

The 'Others' category groups a number of sectors which in total have about €74 million of loans subject to a moratorium. Of these, the transportation and storage sector has about €28 million which accounted for around 10% of all the loans to this sector. In addition, the education sector which also captures childcare centres, had a total of €20 million of loans subject to a moratorium. This equates to about 68% of the outstanding loans pertaining to this activity. The arts, entertainment and recreation was also adversely hit as



³⁴ <https://www.macm.org.mt/media/articles/MACM%20Survey%20Covid19%20Construction%20May%202020.pdf>

major public events were either cancelled or postponed and venues were eventually closed down as part of the containment measures instituted following recommendations by the national health authorities. Around 40% of loans related to this sector were subject to a moratorium.

Conclusion

As COVID-19 continues to spread across some countries, including Malta, consumers, firms and governments are rising to the challenge with response measures to minimise the medium- and long-term impacts on the economy. In particular, businesses and households affected by the crisis may face liquidity shortages and may be unable to affect timely payments on their financial commitments. This could in turn have negative repercussions on banks as it can lead to a larger number of defaults and increased own funds requirements for credit institutions. The policy measures introduced by the Central Bank of Malta, the supervisory authorities, international bodies and the Government to support credit institutions from the unprecedented economic shock in the wake of the COVID-19 pandemic help to avoid potential systemic financial crisis, and at the same time promote economic recovery.



4. INSURANCE COMPANIES AND INVESTMENT FUNDS

4. INSURANCE COMPANIES AND INVESTMENT FUNDS

Insurance companies and investment funds continued to play an important role in the Maltese financial system. As at end 2019, there were 68 licensed insurance companies with assets totalling €13.8 billion, equivalent to 104.3% of GDP. Of these, eight insurers underwrite risks situated in Malta. Meanwhile, there were around 500 licensed and reporting investment funds, of which 67 are considered to be domestically relevant with assets of €2.6 billion, corresponding to 19.3% of GDP.

4.1 Domestic Insurance Companies

Out of the eight domestically-relevant insurance companies, three are life and five are non-life insurance companies. Two of the latter are referred to as composite insurers since they are also licensed to provide life insurance products. Life insurance is a marginal element of their business accounting for 2.1% of gross written premia. In 2019, the overall assets rose by 10.9% to €3.8 billion, equivalent to 28.6% of GDP. Domestic insurers remained resilient with adequate capital levels and positive performance in spite of the persistent low interest rate environment, though some search-for-yield behaviour was observed.

Domestic insurance companies are intrinsically interconnected with the core domestic banks, but as insurance firms are set up as separate legal entities with their own specific capital requirements, contagion risk is reduced.

Insurance companies are also linked to other insurers in cases when such firms take on business whose coverage would be too burdensome for one company to handle on its own, thereby reducing underwriting risk while obtaining capital relief. However, contagion risk is attenuated by the generally high rating of the reinsurance companies and the fact that such business is spread across a number of reinsurance companies. Domestic insurance companies reinsured a median of 17.0% of their premia with foreign reinsurance companies compared to 15.1% in 2018, and higher than the EU median of 5.7% as at December 2019.¹ Going forward, the prolonged low-yield environment, together with the direct and second round effects of covid-19 pandemic, will continue to challenge the insurance sector potentially applying further pressure on profitability. These could give rise to higher claims coupled with adverse market movements on their portfolios which in turn could trigger an increase in search for yield behaviour.

4.1.1 The Domestic Life Insurance Companies

The balance sheet of domestic life insurers expanded by 10.7% to €3.3 billion, equivalent to 25.1% of GDP, largely dominated by two life insurance companies, which together take up 96.6% of gross premia written by the life insurance sector.

The most dominant line of business remained 'insurance with profit participation' – a savings product where at the end of each year the insurance company may declare a bonus rate which forms part of the annual investment return. Such business characterised around 80% of the total gross written premia representing a rise of 3.1 percentage points over December 2018. 'Index and unit-linked' products – where the obligation for the life insurance company is represented by the value of the underlying unit – contracted by 4.7 percentage points to around 12% of gross written premia. Technical provisions set aside for such index and unit-linked products remained limited to 17.7% of the total life insurers' technical provisions, with the rest of the technical provisions set aside for non-unit linked products. Meanwhile, the remaining line of business is classified as 'other life insurance' and constituted about 8% of the total premia written, up by 1.6 percentage points over a year ago.

4.1.1.1 Asset Composition

The bond portfolio of domestic life insurers grew by 6.3% to €1.2 billion.² However, while these remained the largest single balance sheet component as a percentage of total assets, they declined by 1.5 percentage

¹ The median reinsurance part of premia for the life and non-life sectors in 2019 stood at 8.5% and 34.9%, respectively. Source: EIOPA Risk Dashboard April 2020.

² The bond portfolio is made up of government bonds, corporate bonds and collateralised securities. Collateralised securities are captured under 'other assets' in Chart 4.1.

points to 37.4% owing to a faster increase in the balance sheet size (see Chart 4.1).

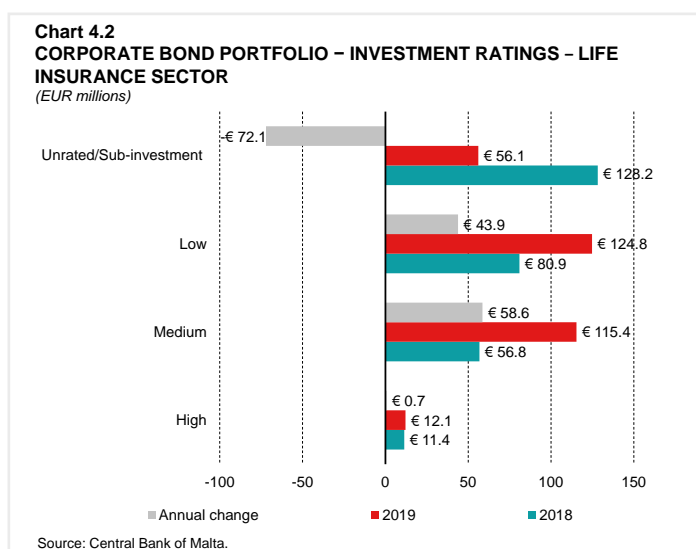
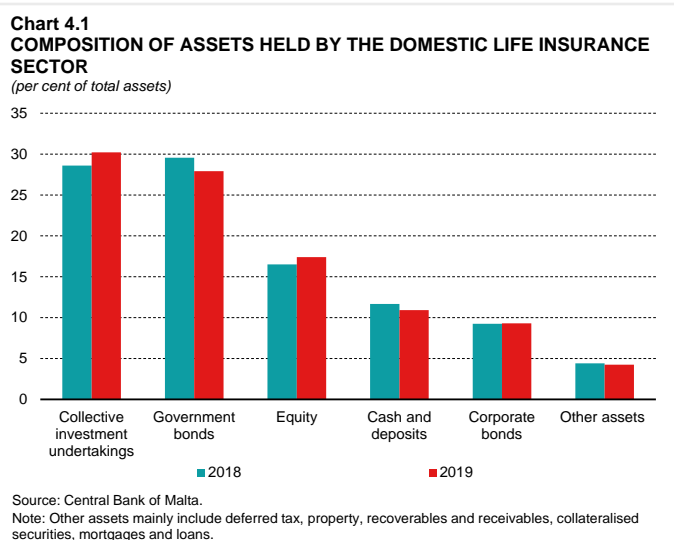
Almost three-fourths of the bond portfolio was composed of sovereign bonds, of which around 46% were invested in MGS with the remainder mainly spread across sovereign bonds of euro area countries.

Holdings of corporate bonds rose by 11.2%, but their share in total assets remained unchanged at 9.3%. However, noticeable changes were reported in their credit ratings with holdings of sub-investment grade or unrated corporate bonds contracting by more than half to represent 18.2% of bonds holdings (see Chart 4.2).³ Meanwhile holdings of low-rated bonds increased by 54.2% to around 41% of total corporate bond portfolio while medium-rated bond holdings more than doubled to 37.4% of corporate bonds. Holdings of high-rated corporate bonds also increased, up by 6.5% but their share decreased marginally to 3.9% of the corporate bond portfolio. Thus, although the incentive for searching-for-yield remains, the life insurance sector seems to be adopting a more conservative risk strategy. In 2019, more than half of these bonds were issued in euro area countries mainly by NFCs, banks, CFIMLs and OFI.⁴

Another 32.0% were issued in the US and related to NFCs, OFIs and banks. As a result, foreign corporate bonds increased by 1.1 percentage points to almost 23% of the bond portfolio. The remainder were domestic corporate bonds, largely issued by CFIMLs, banks and NFCs.

Collateralised securities refer to the securities whose value and payments are derived from a portfolio of underlying assets. Their share in total assets remained low and stood at 0.2%, increasing by 0.1 percentage point from 2018. Around 29% of collateralised securities are collateralised by real estate.

Equities rose by 16.6%, mainly reflecting the rise in market prices to account for 17.4% of life insurers' assets as at end of 2019. Such holdings were mainly concentrated in NFCs located in the United States and



³ Investment-grade bonds carrying a rating of AA- or above are regarded 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+. Sub-investment grade bonds are rated lower than BBB-.

⁴ The CFIML also consist of holding companies that have controlling levels of equity of a group of subsidiary corporations and whose principal activity is of owning the group without providing any other service to the businesses in which the equity is held.

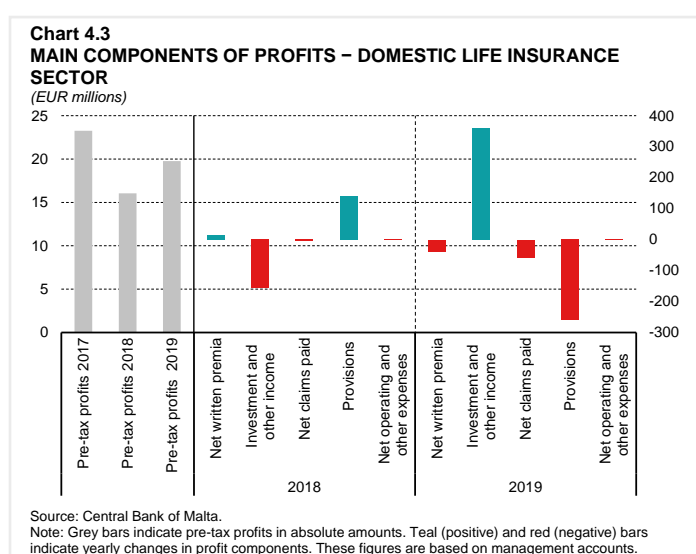
predominantly in euro area countries. Around 14.1% of equities pertained to domestic NFCs, with more than a fifth related to real estate.

Participation in collective investment undertakings (CIU) increased by almost 17% spread across debt, equity, money market and asset allocation funds, predominately in euro area countries other than Malta. Such holdings accounted for around 30% of the life insurers' assets.

The domestic life insurers' participation in non-traditional non-insurance activities remained negligible with loans channelled to related NFCs accounting for just 0.6% of their assets. Meanwhile, domestic life insurers have exposures to tangible real estate, which stood at 4.0% of total life insurers' assets, the bulk of which was held for investment purposes.

4.1.1.2 Profitability

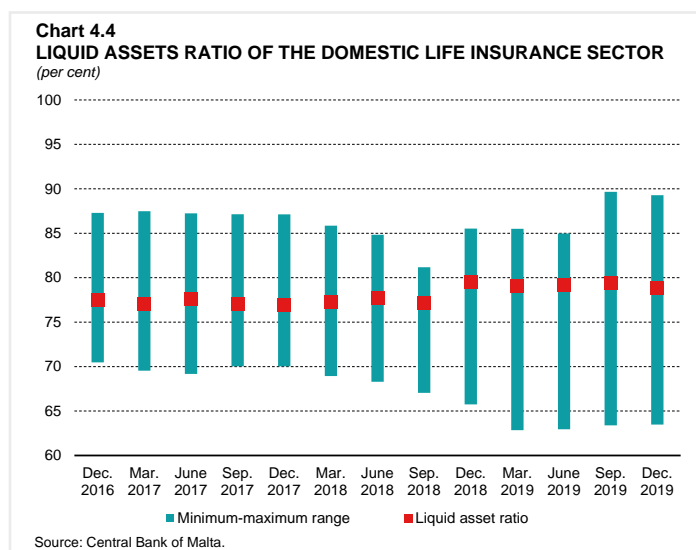
Life insurers' pre-tax profits improved by 23.1% to reach €19.8 million (see Chart 4.3). This increase in profitability was driven by higher gains from revaluation of financial assets following losses registered in 2018. This was partly offset by a drop in net written premia coupled with higher net claims and a rise in provisions against claims. Pre-tax ROE rose from 6.1% in 2018 to 7.8% in 2019, with the pre-tax ROA also increasing from 0.4% to 0.6%. Pre-tax return on net premia stood at 5.7%, up from 4.2% in 2018, which was driven by a faster increase in profit before tax than in net premia.



The domestic life insurance sector remained highly liquid with a liquid asset ratio of 78.9%, although this narrowed slightly when compared with the levels observed in 2018 (see Chart 4.4).⁵ Such high liquidity reflected significant holdings of government bonds and listed equities.

4.1.1.3 Capital Adequacy

The overall solvency position of the domestic life insurers remained noticeably above the minimum set by regulatory requirements with an overall solvency ratio of 209.1%, up by 5 percentage points over the previous year. This mainly reflected a faster decline in the Solvency

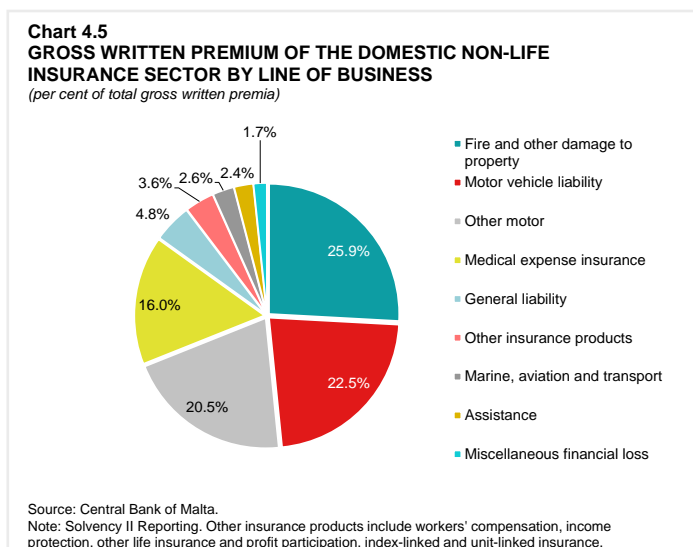


⁵ The liquid assets ratio shows the proportion of liquid assets to total assets (excluding assets held for unit-linked). The ratio is calculated by applying different weights (ranging from 100% for cash to 0% for intangible assets) to the different assets, according to their liquidity profile.

Capital Requirements – which fell by 9.5% – than the 7.3% drop in total eligible own funds. The capital composition remained of very high quality – almost entirely in Tier 1 own funds.

4.1.2 The Domestic Non-life Insurance Companies

Assets held by the domestic non-life insurance sector rose by 12.6% to €462.3 million in 2019, equivalent to 3.5% of GDP. Their business is mainly concentrated in motor vehicle-related business, which in total accounted for 43.1% of the total premia written, followed by fire and other property damage which represented a further 25.9% (see Chart 4.5).

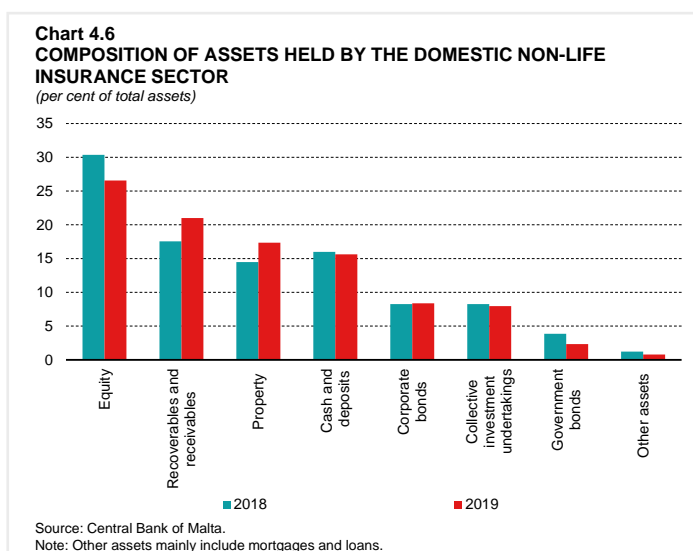


4.1.2.1 Asset Composition

Although a number of insurers shed some of their equities, these still remained the largest asset component of non-life insurers representing 26.6% of their assets. Around 86% of equity holdings pertained to domestic firms, the bulk of which were in related insurance companies, implying a high level of interconnectedness due to cross ownership. The rest of the domestic holdings were spread among equities in captives, MFIs, financial institutions and also NFCs largely within the real estate, information and communication, transport and storage, and wholesale and retail sectors. The large majority of foreign equities were invested in NFCs within the information and communication, manufacturing, wholesale and retail trade as well as in mining and quarrying sectors. Participations in CIUs – which are mainly debt funds, equity funds and MMFs – declined by 8.4% to 8.0% of the non-life insurers' assets (see Chart 4.6).

Recoverable and receivables rose by 3.5 percentage points to 21.0% of non-life insurers' assets. These were mainly composed of recoveries of losses from claims that are recouped from the reinsurers and receivables in terms of pending premia.

Bond holdings accounted for 10.7% of their balance sheet, three fourths of which consisted of corporate bonds. Around two thirds of the latter related to foreign corporates in EU countries (other than Malta) and the United States, with the remaining invested in Maltese companies. Most of the corporate bond holdings are either unrated – which rose by 3.1 percentage points to 38.7% of corporate bond holdings – or else have a low rating. The latter increased by 1.2 percentage points to 31.9%, indicating some potential search-for-yield behaviour.⁶ Meanwhile, medium- and high-rated



⁶ See footnote 3.

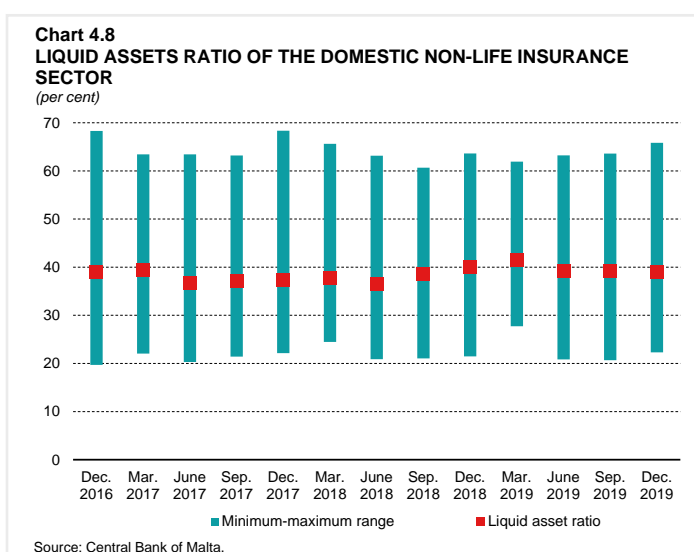
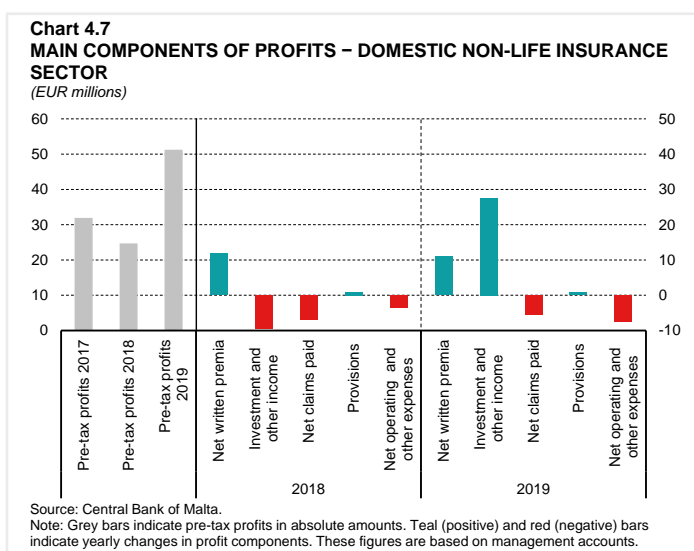
bonds stood at 25.1% and 4.3% of the corporate bond portfolio, respectively. Foreign sovereign bonds amounted to 10.1% of the insurers' bond portfolio, falling by 2.1 percentage points since 2018, while another 11.6% were MGS, which narrowed by 8.0 percentage points.

Non-life insurers were not involved in credit intermediation, with uncollateralised loans to domestically-relevant insurance companies accounting for 0.2% of assets. Furthermore, by 2019, non-life insurers continued to increase their exposure towards the domestic real estate market as tangible real estate exposures rose to 17.4% of assets from 14.5% in December 2018. More than half of these assets were in the form of office and commercial buildings held for investment purposes, with the rest mainly held for own use.

4.1.2.2 Profitability

Compared to 2018, pre-tax profits increased by 107.5% to €51.2 million (see Chart 4.7). The rise in profits was mainly driven by investment and other income as capital markets recovered. A 7.3% increase in net written premia, equivalent to €162.5 million, also contributed to profit growth, though this was partly offset by higher net claims paid which increased by 7.4% to €79.2 million reflecting growth in the insurance market, as well as higher claims on the back of unfavourable weather conditions, which caused significant damage in the first quarter of 2019. As premia earned outpaced the extent of claims incurred, the loss ratio fell slightly to 51.3%, representing positive underwriting performance. However, as net operating expenses grew, the combined ratio went up by 1.2 percentage points to around 85% in 2019, though still pointing to the ability of non-life insurers to generate positive underwriting results. This is also evidenced by the overall net expense ratio, which rose by 2.8 percentage points to 33.2% in December 2019. Consequently, the pre-tax ROE rose from 15.1% in 2018 to 28.9% in 2019, while the pre-tax ROA rose from 5.7% to 10.7%. Similarly, the pre-tax return on net premia stood at 31.5%, up from 16.3% in 2018.

Compared to end 2018, liquidity narrowed slightly to 38.9% reflecting the share of intragroup equity holdings and recoverables and receivables held by non-life insurers which are deemed to be less liquid (see Chart 4.8).⁷



⁷ Intragroup equity holdings accounted for 20.5% of assets and receivables, while recoverables represented another 21.0% of assets. These carry a zero weighting when determining the extent of liquidity.

4.1.2.3 Capital Adequacy

The non-life insurers' capital remained well over the supervisory requirements with an overall solvency ratio of 256.5%, surpassing the minimum regulatory threshold of 100%. This ratio strengthened by 15.0 percentage points when compared to December 2018 due to a stronger increase in total eligible own funds. The majority of total own funds was held in the form of Tier 1 own funds.

4.1.3 Domestic Insurance Risk Outlook

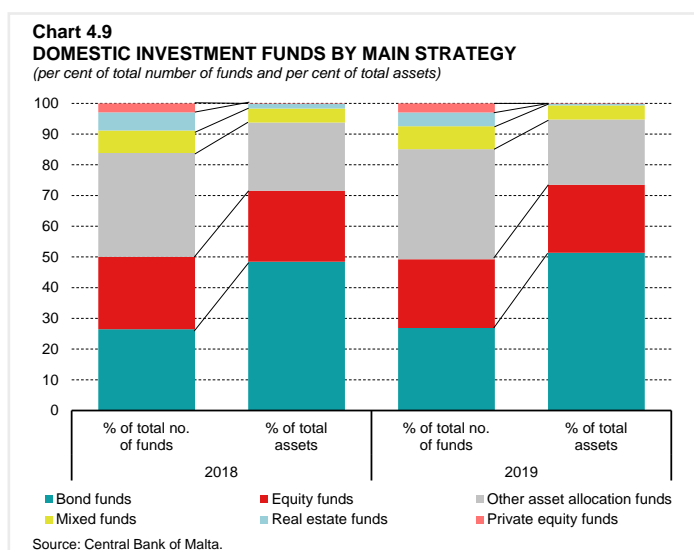
Going forward, the low-yield environment in conjunction with the COVID-19 pandemic could affect negatively the profitability of insurance companies, particularly if the spread is prolonged further. While a direct impact of the coronavirus from claims is expected to be less significant, as epidemics are usually excluded from (non-life) insurance cover, in other instances such as in the case of trade credit and business interruption insurance, significant claims could pose some solvency risks for the insurer and ultimately threaten policyholder protection.⁸ Cash flows for all lines of businesses offered by insurance companies can be at risk as new business may affect the renewal of policies as well as payments of premia could be disrupted. Some business lines – like motor insurance which forms a large share of non-life premia – may, however, experience lower claims.⁹ That said, it is far too early to predict the impact of the pandemic as its duration is still unclear, while a number of policy measures that were introduced could mitigate to some extent the adverse effects on the economy.

The recent widening in risk premia and equity price drops might have an adverse effect on solvency ratios, as any corporate debt downgrade could result in asset valuation losses and in turn require higher capital charges.¹⁰ Nevertheless, the domestically-focused insurance sector ended the year with healthy capital levels and liquidity buffers which provide resilience to their business.

4.2 Domestic Investment Funds

By the end of 2019, 67 sub-funds were considered to be domestically-relevant given their ties with the Maltese economy.¹¹ Over the year, two sub-funds were wound down, while one sub-fund started operating. The assets of these domestic funds grew by 5.1% to €2.6 billion and stood at 19.3% of GDP.

The distribution by type of these domestically-relevant investment funds remained virtually unchanged when compared to a year earlier. Just above a quarter of the sub-funds were bond funds, with their share of total assets increasing by 2.9 percentage points to 51.4% (see Chart 4.9). This, in part, reflected a strong performance of the bond market as investors increasingly turned to bonds owing to their perceived safe-haven characteristics, on the back of weaker economic growth and further monetary policy easing by various central banks. As a result, bonds acted more like equities with the bulk of the return resulting from price movements as yields slumped.



⁸ Trade credit insurance is mainly purchased by companies and pays out against default of the debtor.

⁹ Source: European Central Bank *Financial Stability Review* (May 2020).

¹⁰ See footnote 9.

¹¹ The number of domestically-relevant sub-funds as at December 2018 was revised to 68, with total assets amounting to €2.4 billion. As at December 2019, two sub-funds were in the process of being liquidated.

Almost a fourth of the sub-funds were classified as equity funds given their focus on investing in equities. These accounted for 22.1% of overall assets under management (AUM), representing a drop of 1.0 percentage point from December 2018.

Meanwhile, more than a third of the domestically-relevant sub-funds were classified as ‘other asset allocation funds’ with their assets increasing by more than €2 million to 21.2% of total assets.¹² In turn, the number of sub-funds classified as mixed funds remained unchanged over a year ago, accounting for some 5% of assets and 7.5% of the number of entities under scope.¹³ The assets of real estate funds fell by more than 65% to represent 0.5% of overall assets and 4.5% of the number of sub-funds. Assets of private equity funds increased by 7.5% to 0.2% total assets, but such entities only accounted for 3% of the overall amount.

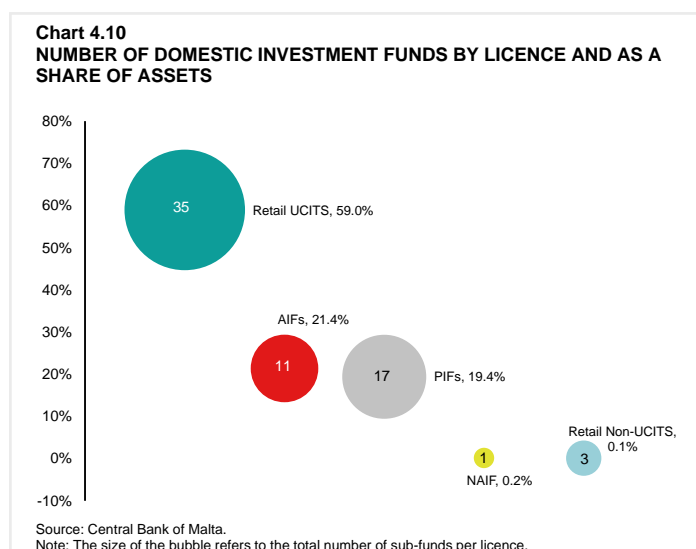
4.2.1 Asset Composition by Fund Type

Just over half of the domestically-relevant sub-funds were licensed as retail Undertakings for the Collective Investment in Transferable Securities (UCITS) representing 59.0% of the domestically-relevant sub-funds’ assets. Of the remaining sub-funds, 17 were licensed as Professional Investor Funds (PIFs) accounting for 19.4% of assets, 11 were Alternative Investment Funds (AIFs) representing 21.4% of assets and three were retail non-UCITS, representing just 0.1% of total assets. Lastly, there was only one Notified AIF, accounting for 0.2% of total assets (see Chart 4.10).

The funds’ asset composition sheds light on the investment strategy of the different investment funds. Traditionally favouring liquidity, more than two thirds of retail UCITS’ assets consisted of bonds, while equities accounted for around 30% of their assets, which remained stable over the past three years. Retail UCITS also held deposits and loan claims to the tune of 7.5% of their balance sheet, which dropped by 4.1 percentage points from December 2018.

In contrast, PIFs – which are marketed to more professional and experienced investors – were highly invested in equities, representing more than 80% of their assets. These rose by around 5 percentage points from the previous year, probably reflecting their drive to tap into potential higher returns as the stock market rally continued in 2019. Over the years, this concentration of equities has been trending upwards, increasing by 25.5 percentage points since December 2016. Meanwhile, more than 15% of PIFs’ assets were invested in bonds in 2019, narrowing somewhat since the previous year.

AIFs invested predominantly in debt securities (56.1% of their balance sheet), followed by deposits and claims on loans (21.2%) and equities (16.3%). Additionally, AIFs also held 6.1% of their balance sheet in cash. Although cash holdings were already observed in 2018, the share increased further in 2019, possibly reflecting AIFs’ preparedness to get back in the market when favourable investment opportunities arose. Meanwhile, in 2019, AIFs invested in higher holdings of debt securities and equities which were offset by lower deposits and loan claims.



¹² Funds are classified as ‘other asset allocation funds’ if they cannot be classified as any of the other funds. For example, an investment fund investing in commodities is classified as ‘other asset allocation fund’.

¹³ Investment funds are classified as ‘mixed funds’ if they invest in both bonds and equity with no general policy in favour of either one or the other.

Almost 70% of retail non-UCITS' balance sheet is made up of cash (see Chart 4.11). Such holdings increased significantly when compared to end 2018, as these sub-funds shed most of their equities and bonds in 2019.

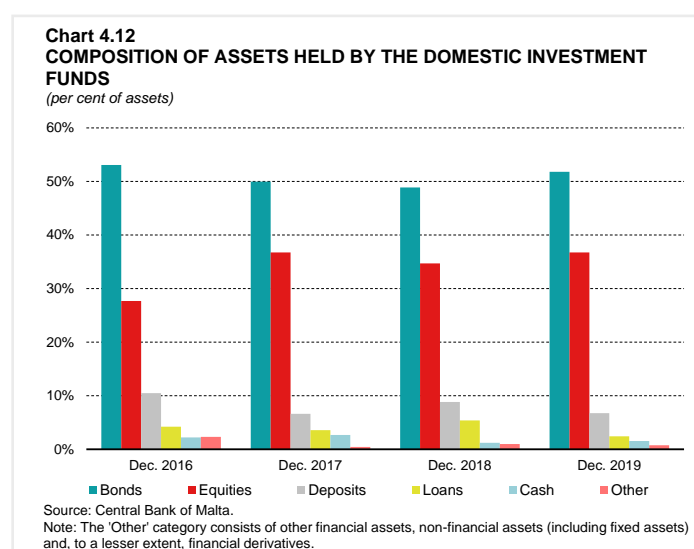
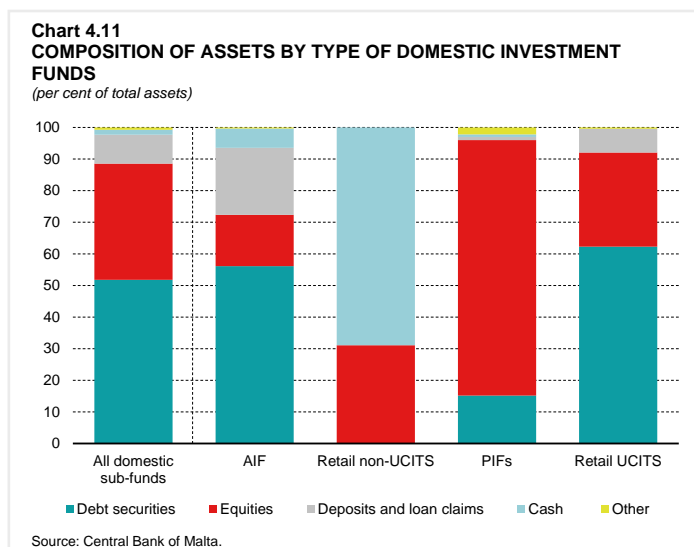
4.2.2 Asset Composition by Instrument

Debt securities represented the largest asset component of domestically-relevant investment funds. These grew by 11.4% to reach €1.3 billion, accounting for 51.8% of total assets. Around half of these bonds were in sovereign bonds, of which almost 90% pertained to the Maltese government. Meanwhile, almost a quarter were invested in bonds issued by OFIs, FAs and CFIMs, while 12.2% was invested in non-financial corporate bonds. Of the latter, around 30% were invested in Maltese firms while around 27% were in euro area corporate bonds. Domestically-relevant sub-funds also held bank bonds, representing 8.0% of the overall bond portfolio, with around a third pertaining to local banks followed by other euro area and US banks. Investments in other institutions include insurance corporations and non-MMF investment funds, which – however – were more contained representing 1.0% and 0.1% of the bond portfolio, respectively.

Holdings of equities increased by 11.3% to almost €940 million and were equivalent to 36.7% of assets. The growth in equities was primarily driven by higher participations in non-MMF investment funds which rose by 30.9% to account for more than a third (37.3%) of the overall equity portfolio. These largely represented investments in non-MMF investment funds domiciled in the euro area (78.7%). MMF holdings rose fivefold, but at almost €0.5 million, they still represented only 0.1% of the equity portfolio.

Meanwhile, direct equity holdings increased by 5.5% and were largely driven by higher investments in NFCs to represent almost half of the overall equity portfolio.¹⁴ Such holdings were mainly in other euro area NFCs, followed by Maltese NFCs and holdings in US firms. On the other hand, domestic investment funds decreased their holdings of bank equities by around 21% to 6.7% of the overall equity portfolio – with more than 90% of such holdings pertaining to Maltese banks. Holdings in OFIs, financial auxiliaries and captives amounted to 4.5% of overall equities, with the remaining 1.4% invested in insurance corporations, the majority of which were domiciled in Malta.

During 2019, the share of deposits and loan claims decreased by 5.0 percentage points to 9.2% of



¹⁴ Direct equity holdings include investments in MFIs, OFIs, financial auxiliaries and captives, insurance corporations and NFCs.

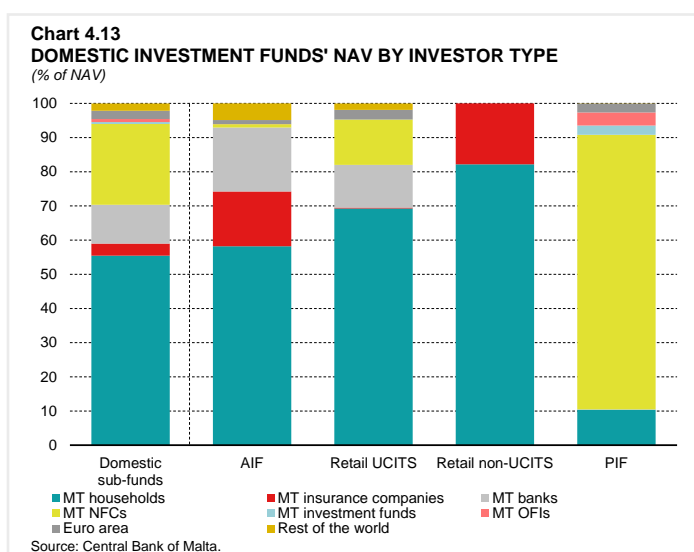
assets, while cash holdings grew by 0.3 percentage point to 1.5% of total assets. Financial derivatives and other financial assets captured under 'other' in Chart 4.12 stood at 0.7% of total assets, down from 1.0% in December 2018, while non-financial assets (including fixed assets) accounted for a marginal 0.01% of total assets.¹⁵

4.2.3 Type of Investors

At 55.4% of the total net asset value (NAV), Maltese households continued to be the principal investors in domestically-relevant sub-funds, while Maltese NFCs represented 23.7% of the overall NAV. These were followed by domestic MFIs accounting for another 11.4%. Meanwhile, participation by non-resident investors was limited to 4.5%.

Households are largely invested in retail UCITS, holding about 70% of their NAV, while Maltese NFCs and domestic banks held 13.3% and 12.5%, respectively. Meanwhile, the majority of the units (80.3%) in PIFs were held by domestic NFCs while another 10.4% was held by Maltese households. Furthermore, Maltese households also held a significant amount of units (58.2%) in AIFs, while domestic MFIs and insurance companies held 18.7% and 16.0%, respectively. Lastly, Maltese households were also the main shareholders in retail non-UCITS, accounting for 82.2% of their total NAV, followed by resident insurance companies with 17.8% of the total NAV (see Chart 4.13).

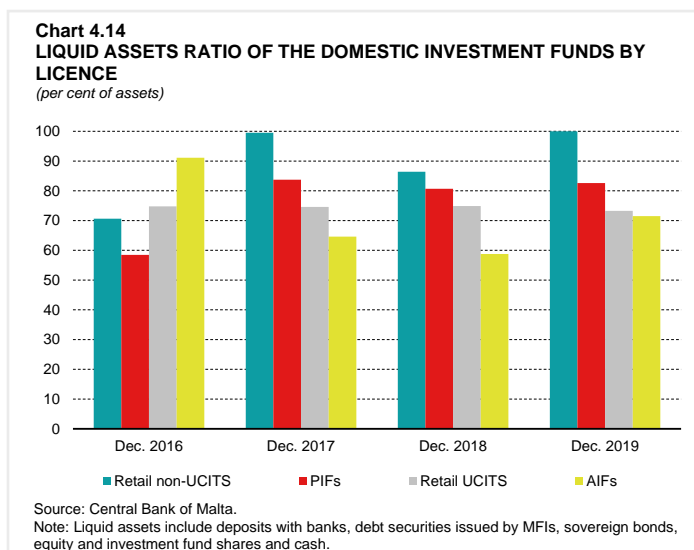
Overall, domestically-relevant investments funds represented 4.7% and 1.8% of the Maltese households' and the NFCs' financial wealth, respectively.



4.2.4 Risk Assessment

Liquidity profile

The marketability of the investment funds' assets determines their ability to meet the daily regulatory requirements and also redemption requests from investors. Most of the domestically-relevant investment funds are UCITS, which are globally recognised as highly liquid products. To qualify as such a fund, capital is raised from the public in transferable securities and in other liquid financial assets. The UCITS Directive and the Alternative Investment Fund Managers Directive have provisions to ensure that adequate liquidity levels are kept



¹⁵ The 'Other' category consists of other financial assets, non-financial assets (including fixed assets) and financial derivatives.

for UCITS and AIFs. Domestic retail non-UCITS remained the most liquid type of funds over the year, with a liquid assets ratio amounting to 100%.¹⁶ These were followed by PIFs, which also held a significant share of liquid assets, with their liquid assets ratio standing at 82.6%, up by 1.9 percentage points from 2018. In addition, the majority of retail UCITS and AIFs' assets were also highly liquid accounting for 73.3% and 71.5% of their assets, respectively.

As a result, the overall liquid assets ratio of the domestically-relevant investment funds stood at 74.6% in December 2019, up by 2.4 percentage points from the previous year. This shows that overall, domestic investment funds have enhanced their capacity to absorb liquidity shocks with liquid assets increasing through higher equity and sovereign bond holdings (see Chart 4.14).

Leverage

Financial leverage is defined as any method utilised by investment funds to increase their exposures over and above their assets to finance their operations, which can be done through the borrowing of cash, securities or leverage embedded in derivatives, among others. While this can amplify investor returns, it can also result in significant losses in case of adverse market movements, potentially requiring the need to quickly liquidate assets to meet margin calls particularly when cash buffers are very low.

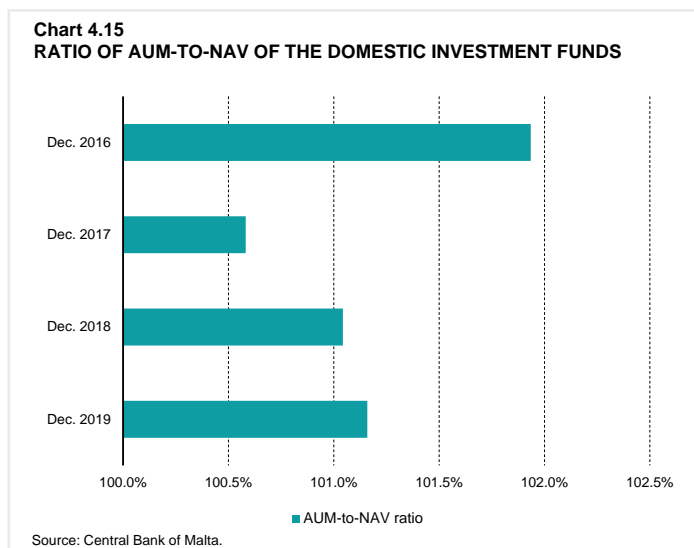
Under the UCITS Directive, UCITS have inbuilt limits on the exposures created by the use of financial derivatives. These funds are allowed to leverage – provided that such borrowing is on a temporary basis and does not exceed 15% of assets. Meanwhile, PIFs marketed to experienced investors can leverage up to 100% of NAV through the use of financial derivatives but there are no restrictions for PIFs promoted to qualifying and extraordinary investors.¹⁷

During 2019, the AUM-to-NAV ratio of the domestically-relevant investment funds increased marginally to 101.2% (see Chart 4.15).

Apart from retail non-UCITS, which in 2019 reported higher leverage due to liquidation and redemption of investments, other investment funds' leverage remained contained, with AIFs' AUM-to-NAV ratio standing at 102.7%, followed by PIFs, with a ratio amounting to 101.5% and lastly, retail UCITS with 100.4%.

Concentration risk

Concentration risk may arise from concentration to a single country, sector or instrument, which can eventually be a threat to the health of the investment portfolio. The securities portfolio of domestically-relevant investment funds is highly concentrated in Malta, standing at 46.0% of the whole securities portfolio at the end of 2019, up by 0.6 percentage point over a year ago. This is closely followed by securities of euro area sovereigns, with 40.2% of the overall securities



¹⁶ Liquid assets include cash and deposits with banks, debt securities issued by MFIs, sovereign bonds, equity and investment fund shares.

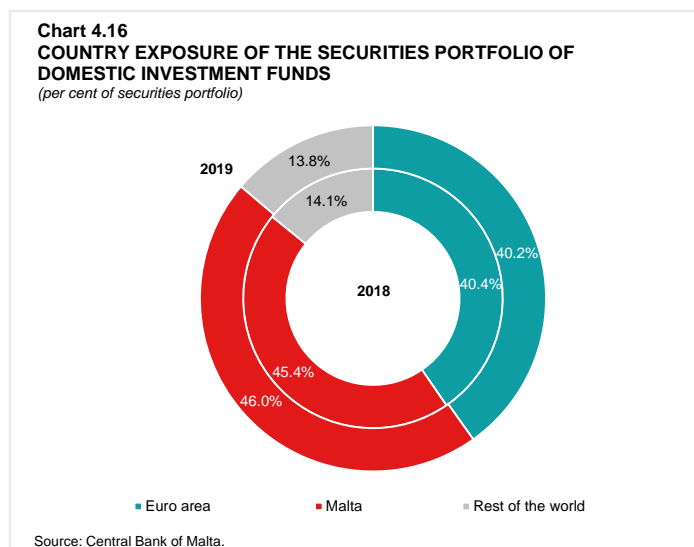
¹⁷ There are three types of PIFs, including PIFs promoted to experienced investors, which have an entry level of €10,000; PIFs promoted to qualifying investors, having an entry level of €75,000; and finally PIFs promoted to extraordinary investors, which have the highest entry level of €750,000.

portfolio, down by 0.2 percentage point over a year ago. The remaining 13.8% of the portfolio was spread in countries from the rest of the world (see Chart 4.16). The bond portfolio is highly concentrated in domestic sovereign paper, accounting for just under a quarter of assets. The concentration in local sovereign holdings mainly arises from the relatively high domestic yields when compared to other countries in the euro area.

4.2.5 Risk Outlook

Compared to the previous year, assets of domestically-relevant investment funds grew moderately.

However, the overall investment strategy remained unchanged.



Structural risk

Potential group contagion risk is still present in the investment funds sector since some asset management companies are owned by the core domestic banks, responsible for managing almost 60% of the NAV of the domestically-relevant sub-funds. To safeguard against any potential step-in risks, investment funds are set up as separate legal entities, and are subject to the provisions of the Maltese Companies Act and the Investment Services Act. Additionally, funds employ several liquidity management tools such as redemption gates and redemption fees to mitigate the risks emanating from potential destabilising liquidation requests.

Cyclical risk

While at the current juncture fund managers did not appear to have embarked on excessive search-for-yield behaviour, going forward fund managers may step up this behaviour to compensate for valuation losses particularly due to the equity price drops experienced during the first quarter of 2020. Investment funds' exposure to COVID-19 sensitive sectors amounted to 9.3% of assets (refer to Special Feature, Panel A), with any potential implications from investments negatively hit by the shock in asset prices contained.¹⁸ Furthermore, local investment funds did not experience the outflows faced by funds domiciled in other euro area countries as the situation remained in check and no significant redemptions were affected.

¹⁸ The share of investment funds exposed to COVID-19 sensitive sectors is based on SBS data only. SBS data for debt securities represent 94.2% of total debt securities holdings and SBS data for equity holdings represent 66.1% of total equity holdings.



5. THE POLICY RESPONSE

5. THE POLICY RESPONSE

Malta – IMF Financial Sector Assessment Program (FSAP)

The year 2019 marked the conclusion of the IMF Financial Sector Assessment Program (FSAP), which was initiated during the first half of 2018, following a request by the Maltese Government back in 2017. The FSAP was carried out during 2018 through a Scoping Mission and a Main Mission, following which a Financial System Stability Assessment (FSSA) report was published on 27 February 2019.¹ The FSSA concluded that the Maltese financial sector is relatively large compared to the economy and that the financial system – comprised of banks, insurance companies, investment funds as well as a residual category of other financial institutions (OFIs) – hold a large amount of assets and liabilities with the rest of the world. Despite the fact that the domestic banking system is in good health, challenges remain according to key metrics, especially considering the core domestic banks' high exposure to property-related loans. Notwithstanding this, the FSSA emphasised that domestic banks were well capitalised, liquidity was ample, and profitability healthy.

A number of technical notes were also published on 21 November 2019.² These covered a number of areas including, banking supervision, risk analysis, domestic initiatives aimed at anti-money laundering and combating the financing of terrorism (AML/CFT), the domestic macroprudential policy framework and tools implemented, the supervision of the insurance and securities sector, bank resolution and crisis management.

The IMF put forth a set of recommendations for the MT authorities, including the Central Bank of Malta. During 2019, the Bank endeavoured to implement the Recommendations which were also published in the FSSA. The recommendations directed to the Bank related to: enhancements to liquidity stress testing, performance of regular sensitivity analyses, data management improvements (including closing remaining data gaps), enhancements to analytical tools, and refinements to the borrower-based measures. Further details on the refinements to the stress testing and risk quantification toolkit can be referred to in Chapter 3 of *Financial Stability Report 2018*. With reference to the borrower-based measures, as explained above and as stipulated in Directive No. 16, the Bank reserves the right to amend the conditions stipulated in the Directive subject to prevailing market developments.

Borrower-based measures

The Central Bank of Malta pre-emptively introduced binding measures with respect to the provision of RRE loans for all lenders granting domestic RRE loans through the publication of Directive No. 16.³ Directive No. 16 provides limits on the LTV-O ratio, the DSTI-O ratio and maturity on RRE loans sanctioned from July 2019 onwards. The aim is to strengthen the resilience of lenders and borrowers against the potential build-up of vulnerabilities, which could result in financial losses to both lenders and borrowers stemming from potential unfavourable economic developments. The limits imposed act as a minimum standard and are therefore complementary to lenders' existing internal credit risk assessment policies.

Directive No. 16 differentiates between two types of borrowers, namely: Category I borrowers which include those purchasing their primary residence; and Category II borrowers which primarily include borrowers purchasing secondary residences or buy-to-let property. Category I borrowers are subject to a term-to-maturity limit of up to 40 years and a corresponding LTV-O limit of 90%. The limits stipulated in Directive No. 16 are by design more stringent for Category II borrowers with a maturity limit of 25 years, and a phasing-in LTV-O limit of 85%, applicable in the first year of the coming into force of the Directive in July 2019, followed by a fully phased, more stringent LTV-O limit of 75% from July 2020 onwards. In response to the COVID-19 pandemic, the Bank issued a Notice on 1 June 2020 to postpone the fully phased LTV-O limit of 75% to 1 July 2021.⁴ Further detail is provided in the COVID-19 special feature.

¹ IMF Malta Financial System Stability Assessment (7 February 2019). Source: <https://www.imf.org/en/Publications/CR/Issues/2019/02/27/Malta-Financial-System-Stability-Assessment-46636>

² IMF FSAP Technical Notes. Source: <https://www.imf.org/en/Countries/MLT>

³ Central Bank of Malta Directive No. 16 in terms of the Central Bank of Malta Act (Cap. 204) Regulation on Borrower-Based Measures (29 March 2019). Source: <https://www.centralbankmalta.org/file.aspx?f=72401>

⁴ <https://www.centralbankmalta.org/en/news/14/2020/8823>

Countercyclical Capital Buffer (CCyB)

The Central Bank of Malta's notification relating to the decision on the applicable CCyB rate for the second quarter of 2020 shows that no changes were detected in the level of cyclical systemic risks in Malta.⁵ Quantitative and qualitative information show that credit developments remained contained, with the relevant bank credit-to-GDP ratio recorded at 74.7% and its deviation from the long-term trend remaining in negative territory at -17.1 percentage points (as at December 2019). This supports the Central Bank of Malta's decision to maintain the CCyB rate at 0%.

Identification of material third countries

On the basis of European Systemic Risk Board (ESRB) Recommendation 2015/1 on recognising and setting of CCyB rates for exposures to third countries, as well as through the macroprudential powers conferred to it by Article 17A of the Central Bank of Malta Act (Cap. 204), the Bank carries out an annual exercise for the identification of material third countries to the Maltese banking system.^{6,7} In accordance with the methodology prescribed in Article 4 of ESRB Decision 2015/3, the third countries which have been identified by the Central Bank of Malta as material for the Maltese banking system for the period Q2 2019 up to Q2 2020, are the United Arab Emirates, the Russian Federation, the Republic of Turkey and the United States of America.⁸ This indicates that the list of material third countries for the Maltese banking system remain unchanged from that of the previous year. Furthermore, in 2019, the Central Bank of Malta concluded that the CCyB rate of 0% set by all the Authorities of the aforementioned third countries was appropriate.

Voluntary reciprocation of macroprudential measures

During 2019, in line with its internal policy framework, the Central Bank of Malta analysed the Swedish, the Belgian, the Finnish and French measures, which were all recommended for reciprocation by the ESRB.⁹ It was decided not to reciprocate the Belgian, Finnish and Swedish measures on grounds that these measures were intended for institutions, which operate an internal rating-based model for the quantification of capital that is distinct from the standardised model used by Maltese banks.¹⁰ Furthermore, domestic credit institutions have no material exposures towards these countries' respective markets. With respect to the French measure, the Central Bank of Malta conducted thorough assessments throughout 2019 to determine the relevance of the measure in the local context. A decision not to reciprocate the measure was taken in early 2020, following which the ESRB was notified of non-reciprocation of the French measure.

Identification of Other Systemically Important Institutions (O-SIIs)

In the course of 2019, the Central Bank of Malta, in consultation with the MFSA, revised the domestic O-SII methodology (see Box 2). Credit institutions that were previously identified as O-SIIs for the year 2019 have been reconfirmed, namely: Bank of Valletta Group; HSBC Bank Malta plc; and MDB Group Ltd. During the latest identification exercise, APS Bank plc exceeded the 425bps identification threshold, thus becoming a newly identified O-SII for Malta, and the fourth domestic bank subject to an O-SII buffer.¹¹

Further details on the design and rationale of the new O-SII methodology is provided in Box 2.

⁵ Refer to: <https://www.centralbankmalta.org/countercyclical-capital-buffer>

⁶ ESRB 2015/1: Recommendation of the ESRB of 11 December 2015 on recognising and setting countercyclical buffer rates for exposures to third countries. Source: https://www.esrb.europa.eu/pub/pdf/recommendations/ESRB_2015_1.en.pdf?f368460c8363b65bdd86658d608b7bec

⁷ Justice Services (1968): Central Bank of Malta Act (Chapter 204). Source: <http://www.justiceservices.gov.mt/DownloadDocument.x?app=lom&itemid=8713&l=1>

⁸ ESRB Decision 2015/3: Decision of the ESRB of 11 December 2015 on the assessment of materiality of third countries for the Union's banking system in relation to the recognition and setting of countercyclical buffer rates. Source: https://www.esrb.europa.eu/pub/pdf/other/Decision_ESRB_2015_3.pdf?ee1fea534a8a9319f4fcaa4ab065d4a4

⁹ [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020Y0701\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020Y0701(01)&from=EN)

¹⁰ <https://www.centralbankmalta.org/reciprocity>

¹¹ This threshold includes the maximum 75bps leeway which is allowed under the EBA Guidelines on criteria to assess other systemically important institutions (O-SIIs) (EBA/GL/2014/10).

BOX 2: O-SII REVISED METHODOLOGY¹

The size, business model complexity and lack of substitutes for credit institutions determines whether such institutions are classified as ‘too-big-to-fail’, or in technical terms, systemically important. The failure or impairment of such institutions, particularly in cases where they are highly interconnected with other financial institutions and the macro economy, would have a domino effect and severe adverse repercussions on the same macroeconomic and financial environment. The risk that these systemically important institutions exert is referred to as systemic risk.

On 1 January 2016, the CBM jointly with the MFSA (‘the Authorities’) introduced for the first time a Policy Document on the identification of the O-SIIs and the calibration of the related capital buffer.²

The O-SII framework comprises of two stages, namely the identification stage and the buffer calibration stage. In the identification stage, O-SIIs are identified based on a core set of criteria, indicators and weights, whereby those credit institutions which surpass an established threshold will be classified as O-SIIs. Subsequently, the buffer calibration stage involves the setting of an additional CET1 capital buffer to enhance a given O-SII’s resilience and loss absorbing capacity, thereby ensuring that such institution poses less risk to the domestic economy and in so doing, minimising the ‘too big to fail’ problem.

This box will discuss the revised joint CBM-MFSA O-SII framework, highlighting the rationale for such changes as well as explaining the major differences.

Changes to the Identification Methodology

Following a review of the 2016 O-SII framework, the Authorities in 2019 decided to revise their methodology. The rationale behind this revision, which became effective as from January 2020, is to better reflect developments in the domestic financial sector and to further align the domestic O-SII methodology with the EBA Guidelines on the assessment of O-SIIs.³ The revised methodology is deemed to provide a better representation of the developments observed in the domestic banking sector while concurrently departing from the concept of relative importance against an ‘average’ reference institution, and moving to a concept of a threshold-based approach as prescribed by the EBA Guidelines.

As highlighted in Table 1, the 2016 O-SII identification methodology was based on a two-step approach. As a first step, the Authorities assessed systemically important institutions on the basis of their relevance within the domestic financial sector taking into account the following four categories: (i) ‘size’, (ii) ‘substitutability’, (iii) ‘cross-border activity’ and (iv) ‘resident interconnectedness’. These categories were weighted at 20%, 40%, 20% and 20% respectively.

The ‘Size’ criterion was entirely based on the value of total assets whereas the ‘Substitutability’ criterion was based on three equally weighted (13.33%) indicators namely: (i) ‘Resident customer loans’, (ii) ‘Resident customer deposits’ and (iii) ‘Holdings of Government debt’. Meanwhile, the ‘Cross-Border Activity’ criterion featured two equally-weighted (10%) indicators: ‘Cross-Border Assets’ and

¹ Prepared by Brendon Cassar, Economist within Policy Crisis Management and Stress Testing Department; and Jurgen Grima, Analyst within Policy Crisis Management and Stress Testing Department. The authors would like to thank Christine Barbara, Manager within Policy Crisis Management and Stress Testing Department, and Stephen Attard, Head within Policy Crisis Management and Stress Testing Department, for their valuable suggestions.

² [CBM-MFSA Policy Document](#) on the methodology for the identification of other systemically important institutions (O-SIIs) and the related capital buffer calibration

³ Criteria to determine the conditions of application of Article 131(3) of Directive 2013/36/EU (CRD) in relation to the assessment of other systemically important institutions (O-SIIs) [https://eba.europa.eu/sites/default/documents/files/documents/10180/930752/964fa8c7-6f7c-431a-8c34-82d42d112d91/EBA-GL-2014-10%20\(Guidelines%20on%20O-SIIs%20Assessment\).pdf](https://eba.europa.eu/sites/default/documents/files/documents/10180/930752/964fa8c7-6f7c-431a-8c34-82d42d112d91/EBA-GL-2014-10%20(Guidelines%20on%20O-SIIs%20Assessment).pdf).

Table 1
FEATURES OF THE 2016 O-SII IDENTIFICATION METHODOLOGY (STEP 1)

2016 O-SII Methodology			
Criterion	Indicators	Weight	
Size	Total Assets	20.00%	20%
Substitutability	Resident customer loans	13.33%	40%
	Resident customer deposits	13.33%	
	Holdings of Government debt	13.33%	
Cross-Border Activity	Cross-border assets	10.00%	20%
	Cross-border liabilities	10.00%	
Resident Interconnectedness	Resident Interbank assets	10.00%	20%
	Resident Interbank liabilities	10.00%	

Source: Central Bank of Malta.

'Cross-Border Liabilities'. Lastly, the 'Resident Interconnectedness' criterion included two equally weighted (10%) indicators, namely 'Resident Interbank Assets' and 'Resident Interbank Liabilities'.

Under the 2016 O-SII methodology, the identification stage used a system of relative importance against the mean by employing a z-scoring methodology. Institutions with an overall result exceeding the value of 1, i.e. beyond one standard deviation from the mean, were classified as O-SIIs based on the above-mentioned criteria.

The 2016 O-SII identification methodology also included a second step to assess whether further institutions should be designated as O-SIIs based on the following two additional indicators:

- (i) Size \geq 25% of GDP; and
- (ii) Covered Deposits \geq 2.5 times the domestic DCS funding.

Irrespective of the first step, an institution that meets both indicators listed in points 1 and 2 above would still be subject to an O-SII capital buffer.

Under the revised O-SII identification methodology, the definition of the 'Size' criterion remained unchanged while the definition of the 'Substitutability' criterion was replaced by the 'Importance' criterion, 'Cross-Border Activity' was replaced by 'Complexity' and 'Resident Interconnectedness' was replaced by the broader 'Interconnectedness' criterion. Although using different terminologies, the economic rationale remained relatively unchanged.

In terms of the identification stage, while the 2016 methodology relied on a system of z-scoring, the revised methodology is based on market concentrations. Indeed, the revised O-SII identification methodology measures the weighted-average market share of a credit institution within the industry, with market shares being expressed in basis points and determined as proportions of the various chosen indicators. Thus, the score of bank j can be expressed through the following formula:

$$S_j = \sum_{i=1}^{12} \frac{x_{ij} \cdot a_i \cdot b_i}{\sum_{j=1}^{23} x_{ij}} \cdot 10,000$$

Where:

- S_j refers to the O-SII score of bank j
- x_{ij} is the value of indicator i for bank j
- a_i is the weight of indicator i as a proportion of the weight of the criterion to which it belongs
- b_i is the weight of the criterion to which indicator i belongs

In other words, the obtained score for a credit institution in a given indicator can range from 0 to 10,000, with 10,000 indicating a 100% market share in the given indicator. The score in each indicator is then weighted according to the respective weight of the respective criterion to produce a final overall O-SII score.

The weights have been calibrated to somewhat depart from a system of equal weighting as applied in the EBA Guidelines and as also applied in the 2016 identification methodology. This new weighting system used in the revised methodology puts more weight on those channels which pose greater systemic risk to the Maltese economy and financial system. Indeed, the revised identification methodology has been designed to reflect the Maltese banking sector which is predominantly based on the traditional banking business model (i.e. resident deposit taking and loan provisions) and dominated by a small number of relatively large credit institutions. This is evidenced through the allocation of higher weights to the 'Importance' and the 'Size' categories (see Table 2).

Compared with the 2016 methodology, the weight assigned to the 'Size' criterion under the new methodology was increased from 20% to 22%, while the total weight assigned to the 'Importance' criterion remained unchanged (at 40%) but composed of five indicators based on those outlined in the EBA Guidelines – three mandatory and two optional. The optional (and additional) indicators –, namely 'Private sector deposits from Maltese residents' and 'Private sector loans to Maltese residents' – capture the specificities of the Maltese financial sector, in particular, the strong orientation towards domestic deposits and loans. The remaining three indicators (i.e. 'Value of domestic payment transactions', 'Private sector loans to recipients in the EU' and 'Private sector deposits from depositors in the EU'), apart from being mandatory in the EBA Guidelines, also reflect other sources of systemic importance.

Table 2
REVISED SCORING METHODOLOGY FOR DOMESTIC O-SII IDENTIFICATION

Criterion	Indicators	Indicator weight	Criterion weights
Size	Total Assets	22.00%	22.00%
Importance	Value of domestic payment transactions	8.00%	40.00%
	Private sector deposits from depositors in the EU ⁽¹⁾	5.50%	
	Private sector loans to recipients in the EU ⁽²⁾	5.50%	
	Private sector deposits from Maltese residents	10.50%	
	Private sector loans to Maltese residents	10.50%	
Complexity	Value of OTC derivatives (notional)	4.00%	18.00%
	Cross-jurisdictional liabilities	7.00%	
	Cross-jurisdictional claims	7.00%	
Interconnectedness	Intra-financial system liabilities	9.00%	20.00%
	Intra-financial system assets	9.00%	
	Debt securities outstanding	2.00%	

Source: Central Bank of Malta.

⁽¹⁾ MT deposits are incorporated in 'private sector deposits from depositors in the EU' indicator.

⁽²⁾ MT loans are incorporated in 'private sector loans to recipients in the EU' indicator.

The clearing of transactions is very important for a properly functioning financial markets infrastructure and any interruptions to payment systems are considered as a source of systemic risk. As a result, the 'Value of domestic payment transactions' indicator has been assigned a relatively higher weight of 8%.

The 'Private sector loans to recipients in the EU' indicator reflects a domestic institution's exposure to foreign economies, which may pose an element of imported systemic risk. Hence, loans towards Maltese and EU residents reflect a more complete assessment of the exposure of an O-SII to the economies which it transacts with. On the other hand, the inclusion of 'Private sector deposits from depositors in the EU' represents a more complete assessment of the impact on the domestic DCS, given that EU depositors are also covered by the scheme.⁴ Thus, the degree of systemic risk posed through the DCS is more complete when one accounts for both domestic and EU covered depositors. It is worth noting, however, that domestic private sector deposits and loans indicators were given a greater weight of 10.5%, to reflect the greater relevance of their systemic impact on the domestic real economy compared to the EU-level indicators which were assigned a lower weight of 5.5%. It is also worth highlighting that the EU-level indicators also include values for Malta in order to further reinforce the impact towards the Maltese economy.

The lower weight assigned to the 'Complexity' criterion (18%) reflects the typical Maltese credit institution which operates under the simple, traditional banking business model. This criterion includes the three EBA-mandatory indicators; 'Cross-jurisdictional liabilities', 'Cross-jurisdictional claims' and 'Value of OTC derivatives', with the latter being an addition when compared to the 2016 O-SII methodology.

'Interconnectedness' reflects the degree of interconnectivity across credit institutions and the rest of the banking and financial sector as a whole. In this way, one can gauge the degree of systemic risk as a result of contagion. Unlike the 2016 O-SII methodology, the revised identification methodology does not solely rely on 'Resident interbank assets and liabilities' but also incorporates exposures towards non-resident financial systems, which is an important indicator for assessing the risk of contagion. Indeed, a domestic O-SII may be exposed to foreign financial systems to an extent that any problems in these financial systems may lead to imported systemic risk in Malta. Furthermore, while the 2016 O-SII methodology focused only on intra-bank exposures, the revised methodology considers exposures to the financial system as a whole to capture a more holistic approach towards the channels of contagion. The indicator 'Debt securities outstanding' has been assigned a 2% weight to reflect the fact that debt securities represent a relatively small source of finance for domestic credit institutions, which are more reliant on deposit taking.

Lastly, the revised identification methodology makes full use of the maximum +/-75bps leeway on the 350bps identification threshold specified in the EBA Guidelines, to reflect Malta's relatively small and highly concentrated financial sector. Thus, those credit institutions whose O-SII score exceeds the 425bps cut-off threshold point would be considered as O-SII.

Changes to the Buffer Calibration Methodology

Credit institutions that are identified as O-SIIs are required to maintain an applicable O-SII capital buffer, which consists of – and is supplementary to – CET 1 capital, and is expressed as a percentage of the total risk exposure amount.

As per 2016 O-SII methodology, an identified O-SII would fall within one of four buckets as per Table 3.

Conversely, under the revised 2019 methodology, identified O-SIIs would be classified into one of five buckets, depending on the O-SII score obtained during the revised identification stage as per Table 4. The use of five buckets allows for a more proportionate and commensurate O-SII surcharge.

⁴ Covered deposits are the part of eligible deposits that do not exceed the coverage level laid down in Regulation 10 of the Depositor Compensation Scheme Regulations, 2015 (S.L. 371.09).

Table 3
2016 O-SII METHODOLOGY BUCKETING APPROACH

	Buckets	Capital Buffer Rate	Criterion for each bucket
Step 1	3	2.00%	High risk due to most of the criteria and/or score equal to or above 1.75
	2	1.50%	Risk due to most of the criteria and/or score equal to or above 1.25 and below 1.75
	1	1.00%	Some risk due to some criteria and/or score equal to or above 1 and below 1.25
Step 2		0.50%	Step 2 (additional indicators)

Source: Central Bank of Malta.

Table 4
REVISED O-SII BUCKETING METHODOLOGY

Buckets	Capital Buffer Rate	Score range for each bucket (bps)
5	2.00%	1700 ≤ Score
4	1.50%	1200 ≤ Score < 1700
3	1.00%	830 ≤ Score < 1200
2	0.50%	580 ≤ Score < 830
1	0.25%	425 ≤ Score < 580

Source: Central Bank of Malta.

Furthermore, there is a better delineation between those O-SIIs which marginally exceed the 425bps identification threshold (i.e. falling under bucket 1) and other O-SIIs with higher O-SII score, whose O-SII identification is more likely to remain permanent. The highest and lowest buckets apply a 2% and 0.25% capital surcharge respectively; the higher the systemic risk posed by the respective O-SII, the higher the capital buffer rate applied.

Based on the revised O-SII methodology, the Authorities following the recommendation of the Joint Financial Stability Board and, following consultation with the European Central Bank, identified four institutions as O-SIIs. Table 5 below lists these institutions together with their obtained O-SII scores and the corresponding capital buffer rates:⁵

Table 6 provides a general comparison of the overall features of the 2016 O-SII methodology and the revised methodology including indicators chosen, the scoring system employed and respective buckets used for calibration purposes.

Table 5
DESIGNATED O-SIIS SCORES AND CORRESPONDING CAPITAL BUFFER RATES

Credit Institution	Scores (bps)	Buffer Rate
Bank of Valletta Group (BOV)	2,739	2.00%
HSBC Bank Malta plc (HSBC)	1,362	1.50%
MDB Group Ltd (MED)	662	0.50%
APS Bank plc (APS)	472	0.25%

Source: Central Bank of Malta.

⁵ The Authorities recognise the impact that certain provisions of the measure could have on a credit institution's capital planning. In view of this, the Authorities decided to grant a transitory period for the build-up of the O-SII buffer for newly identified O-SIIs. The transitory period is specified in the applicable yearly [Statement of Decision](#), available on both the Authorities' websites.

Conclusion

This box has compared and highlighted the main changes, implemented as from January 2020, of the joint CBM-MFSA O-SII methodology when compared to the 2016 O-SII methodology. The main objective of the changes was to bring the domestic methodology more in line with the EBA Guidelines. These changes also aim to provide more consistent and comparable results, which reflect the system-wide implications of the domestic systemically important banks.

In general, the changes relating to the identification stage included (i) a shift from a system of z-scoring to a system based on weighted averages and market shares and (ii) the introduction of new indicators coupled with a redistribution of the indicator weightings. The main change relating to the calibration stage was the increase in the number of buckets from four to five, thus providing a relatively more proportionate approach to the O-SII buffer calibration.

The Authorities will continue to actively monitor the appropriateness of the O-SII methodology and, following the necessary consultation procedures, will affect any changes as necessary. The O-SII identification and calibration methodologies are undertaken on an annual basis, and the results are published in the Statement of Decision.⁶ The list of O-SIIs is publicly available on the CBM's and MFSA's websites.

⁶ 2020 Statement of Decision available on the following [link](#).

Main MFSA Circulars

Circular to credit institutions on Banking Rule BR/09

The MFSA issued two annexes to Banking Rule BR/09 on the “Measures addressing credit risks arising from the assessment of the quality of asset portfolios of Credit Institutions authorised under the Banking Act”. Annex 1 implements EBA Guidelines on connected clients (EBA/GL/2017/15), clarifying the treatment of connected clients under Article 4(1)(39) of the Regulation (EU)575/2013 (‘the CRR’). This annex specifies the approach required by credit institutions in applying the requirement to group of two or more clients into a “group of connected clients” since they constitute a single risk as defined in Article 4(1)(39) of the CRR. Also, in accordance with Article 4(1)(39)(b) of the CRR, the annex establishes interconnectedness based on economic dependency and also control and management procedures to be established by credit institutions for identifying connected clients.

Annex 2 relates to the EBA Guidelines on “Limits on exposures to shadow banking entities” which carry out banking activities outside a regulated framework, under Article 395(2) of Regulation (EU) No 575/2013 (EBA/GL/2015/20). This annex sets out the credit institutions’ provision of specific limits for appropriate individual and aggregate limits for such exposures. Indeed, credit institutions shall establish an internal framework to identify, manage, control and mitigate the risks arising from exposures to shadow banking entities, which framework is overseen by the Board of Directors of the respective credit institutions.

Circular to credit institutions on Banking Rule BR/14

The MFSA issued an annex to Banking Rule BR/14 on the “Outsourcing by Credit Institutions authorised under the Banking Act 1994”. This annex implements EBA’s recommendations on outsourcing to cloud service providers (EBA/REC/2017/03) and stipulates the supervisory requirements and processes that apply when credit institutions outsource to cloud service providers. It also sets out the manner in which materiality of cloud outsourcing is assessed and reported to the MFSA. Furthermore, the annex provides guidance on the security of the data and systems used while addressing the treatment of data and data processing locations in the context of cloud outsourcing. The annex includes requirements for credit institutions to mitigate the risks associated with ‘chain’ outsourcing, where the cloud service provider subcontracts elements of the service to other providers. Finally, the annex guides credit institutions on the contractual and organisational arrangements for contingency plans and exit strategies that shall be in place in relation to cloud outsourcing.

Issuance of a new Banking Rule BR/21 on “Remuneration Policies and Practices”

This new rule governs sound remuneration policies for all credit institutions’ staff and for staff whose professional activities have a material impact on a credit institution’s risk profile in compliance with the requirements set out in Articles 92 to 95 of Directive 2013/36/EU (CRD) on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms.

This rule also implements the requirements specified in the EBA Guidelines on Sound Remuneration Policies under Articles 74(3) and 75(2) of Directive 2013/36/EU and disclosures under Articles 450 of the Regulation (EU)575/2013 (EBA/GL/2015/22) as well as providing guidance on disclosures under Article 96 of Directive 2013/36/EU as transposed into paragraph 32 of BR/07.

Finally, this rule governs the remuneration policies and practices related to the sale and provision of retail banking products and services implementing the EBA Guidelines on Remuneration Policies and Practices related to the Sale and Provision of Retail Banking Products and Services EBA/GL/2016/06). These guidelines mainly specify the requirements for the design and implementation of remuneration policies and practices, in relation to the offering or provision of banking products and services to consumers by credit institutions, with a view to protecting consumers from undesirable detriment arising from the remuneration of sales staff.

Main European Regulatory Policies

Risk reduction measures (RRM) package

The RRM package amends rules on capital requirements under the CRD V and the CRR II as well as resolution under the revised Bank Recovery and Resolution Directive (BRRD II) and the Single Resolution Mechanism Regulation (SRMR II).¹²

CRR II and CRD V entered into force on 27 June 2019 where most provisions in CRR II will become applicable as of 28 June 2021 whereas the national transposition for most provisions in CRD V is 28 December 2020. The CRR II imposes a binding leverage ratio of at least 3% and introduces an additional leverage ratio buffer to global systemically important institutions (G-SIIs). Furthermore, CRR II imposes a net stable funding ratio (NSFR) designed to complement the Liquidity Coverage Ratio (LCR) to ensure funding resilience over a longer time horizon, and introduces a simplified NSFR to allow small and non-complex institutions to use a simplified and less granular version of such ratio.

The CRR II and CRD V eliminate the macroprudential use of Pillar 2 such that Pillar 2 requirements will only be used to address risks of a microprudential nature. Additionally, the CRD V provides increased flexibility in the use of macroprudential instruments such as the Systemic Risk Buffer while the CRR II provides for further clarification of roles and responsibilities of designated and competent authorities when applying measures to real estate exposures on the basis of Articles 124 and 164 of the CRR.

The Central Bank of Malta is currently in the process of amending Directive No. 11 on Macroprudential Policy to effectively transpose the elements, in particular of CRD V, in line with the transposition date provided by EU law.

The BRRD II and SRMR II entered into force on 27 June 2019 and will be applicable as from 28 December 2020. The BRRD II includes a new framework for minimum requirements for own funds and eligible liabilities (MREL) which will bring the EU rules in line with the Financial Stability Board's (FSB) international Total Loss-Absorbing Capacity (TLAC) standard for G-SIIs in resolution. This new MREL regime introduces fixed minimum levels of MREL and minimum subordination requirements for EU G-SIIs, top-tier banks (defined as those banks with assets greater than €100 billion) and other systemic entities that qualify neither as G-SIIs nor top-tier banks but which resolution authorities assess as posing systemic risk in the event of failure.

The MREL requirements should be met by banks by 1 January 2024 but resolution authorities can set longer transition periods on a case-by-case basis. Resolution authorities also have to set an intermediate target for MREL requirement that banks should meet by 1 January 2022.

Investment Firms Regulation and Directive (IFR and IFD)

The IFR/IFD framework introduces more proportionate laws for investment firms and hence differentiates between three classes of investment firms: Class 1 includes large investment firms; Class 2 includes other investment firms exceeding the categorisation thresholds for small and non-interconnected investment firms; and Class 3 includes small and non-interconnected investment firms.¹³

Investment firms classified as Class 1 which deal on own account and/or underwrite financial instruments and/or place financial instruments on a firm commitment basis (MiFID regulated activities), and have total consolidated assets equal to or in excess of €15 billion, will remain subject to the current CRR/CRD framework as their risk profiles are considered similar to those of significant credit institutions.¹⁴ Similarly, authorised

¹² The legislative texts related to the RRM package were adopted by the Council of the European Union and the European Parliament on 20 May 2019 and published in the Official Journal of the European Union on 7 June 2019: Official Journal of the European Union L 150, Volume 62 (7 June 2019). Source: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:2019:150:FULL&from=END>

¹³ The new Investment Firms Regulation (IFR) and Investment Firms Directive (IFD) were published in the Official Journal of the European Union on 5 December 2019 and entered into force on 25 December 2019: Official Journal of the European Union L 314, Volume 62 (5 December 2019). Source: http://publications.europa.eu/resource/cellar/ceb0d926-1745-11ea-8c1f-01aa75ed71a1.0006.03/DOC_1

¹⁴ MFSA Circular (6 February 2020): Change in the Prudential Regulation of Investment Firms – The Investment Firm Regulation and Directive. Source: <https://www.mfsa.mt/wp-content/uploads/2020/02/2020206-Change-in-the-Prudential-Regulation-of-Investment-Firms-%E2%80%93-The-Investment-Firm-Regulation-and-Directive.pdf>

investment firms that carry out MiFID regulated activities, and which are part of a group containing a credit institution, will also be treated as institutions subject to the CRR/CRD framework and regulatory approval. On the other hand, investment firms which are neither systemic, nor bank-like, nor of a significant size will be classified as Class 2 and Class 3 and will be subject to the IFR/IFD regime.

Non-performing loans

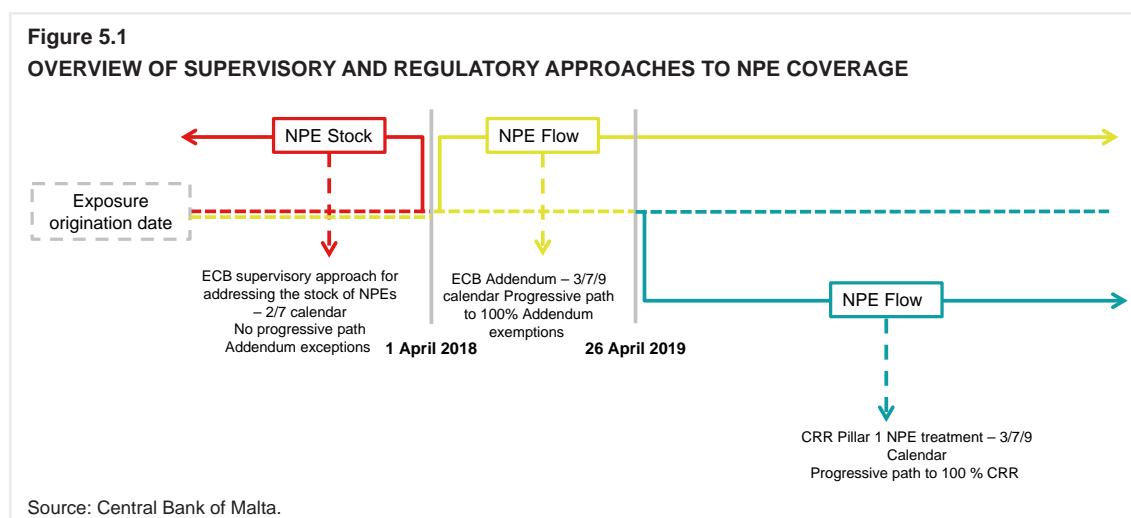
On 22 August 2019, the ECB issued a communication on supervisory approaches for NPEs, clearly highlighting the purpose and application of the main policy initiatives taken by EU institutions with specific reference to the supervisory coverage expectations for NPEs.¹⁵ These consist of:

- (i) The Addendum to the ECB NPL Guidance, which was published in March 2018.¹⁶ The addendum sets out supervisory expectations for prudential provisioning for new NPEs.
- (ii) Supervisory expectations for the provisioning of NPE stock, as communicated in a press release issued on 11 July 2018.¹⁷
- (iii) Regulation (EU) 2019/630 amending the CRR (Regulation (EU)575/2013) as regards minimum loss coverage for non-performing exposures, published on the Official Journal of the EU on 25 April 2019 – CRR Pillar 1 NPE treatment.¹⁸

As per the ECB Communication, the above measures shall apply in the following order:

- (i) Supervisory expectations for the provisioning of NPE stock: this applies to those loans issued and becoming non-performing before 1 April 2018;
- (ii) Addendum to the ECB Guidance: this applies to those loans issued before 26 April 2019 and becoming non-performing after 1 April 2018;
- (iii) CRR Pillar 1 NPE treatment: this applies to those loans issued after 26 April 2019 and becoming non-performing at any date thereafter (see Figure 5.1).

The scope of the ECB's supervisory expectations for new NPEs is a form of Pillar 2 measure. The approach as communicated in the addendum will be limited to exposures not subject to Pillar 1 treatment – i.e. to NPEs



¹⁵ ECB Communication on supervisory coverage expectations for NPEs. Source: https://www.bankingsupervision.europa.eu/press/letterstobanks/shared/pdf/2019/ssm_supervisory_coverage_expectations_for_NPEs_201908.en.pdf

¹⁶ Addendum to the ECB Guidance to banks on non-performing loans: Supervisory expectations for prudential provisioning of non-performing exposures. Source: https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm_npl_addendum_201803.en.pdf

¹⁷ ECB Press release: "ECB announces further steps in supervisory approach to stock of NPLs". Source: <https://www.bankingsupervision.europa.eu/press/pr/date/2018/html/ssm.pr180711.en.html>

¹⁸ Regulation (EU) 2019/630 of the European Parliament and of the Council of 17 April 2019 amending Regulation (EU) No 575/2013 as regards minimum loss coverage for non-performing exposures. Source: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R0630&from=EN>

arising from loans, which originated before 26 April 2019. NPEs arising from loans, which originated from 26 April 2019 onwards, will be subject solely to Pillar 1 as per CRR.

In order to make the two approaches (i.e. ECB Addendum and CRR) more consistent, the relevant time frames for NPEs arising from loans which originated between 1 April 2018 and 26 April 2019 (i.e. subject to the ECB Addendum) was changed from 2/7 years to 3/7/9 years to align these time frames with the CRR.¹⁹

EBA Guidelines on management of non-performing exposures

In addition to the developments carried out by EU legislators and the ECB, the EBA has also published guidelines on the management of non-performing and forborne exposures, aimed at ensuring that banks have adequate tools and frameworks in place to manage effectively their NPEs and to achieve a sustainable reduction on their balance sheets.²⁰

The guidelines set the qualitative elements that banks should have in place in order to manage their levels of NPEs by introducing a 5% gross NPE ratio threshold as a trigger for developing NPE strategies and applying associated governance and operational arrangements as stipulated in the Guidelines. Thus, any bank with an NPE ratio of 5% or higher at any one point in time is required to draw up a time-bound NPE strategy and a corresponding operational plan in order to lower its NPE ratio.

With regards to the application date, the EBA Guidelines entered into effect as from 30 June 2019, based on NPE ratios as at 31 December 2018 reference date.

Update from the European Commission on AML

In recent years, the EU has been working intensely on strengthening its legal framework in its fight against money laundering and terrorist financing, in line with the standards adopted by the Financial Action Task Force (FATF). Indeed, following the adoption of various directives relating to AML during the past years, in July 2019, the Commission adopted a communication to the European Parliament and European Council towards better implementation of the EU's anti-money laundering and countering the financing of terrorism framework. The communication was accompanied by four reports relating to the Union's legal framework for preventing money laundering and terrorist financing and its implementation.

The first report relates to the biennial Supranational Risk Assessment Report. It presents an assessment of the money laundering and terrorist financing risks that could potentially impact the EU. In this second report, seven new products and services are identified as being potentially vulnerable to money laundering / terrorist financing risks, namely: the use of new technologies (FinTech); virtual currency exchange platforms; custodian wallet providers; privately owned automated teller machines; professional football; free ports; and investor citizenship and residence schemes ('golden passports/visas'). The second report assesses the recent alleged money-laundering cases involving EU credit institutions. It provides a "post-mortem review" of alleged publicly-known cases of EU credit institutions being involved in money laundering. The third report assesses the framework for cooperation between Financial Intelligence Units (FIUs) in the EU with third countries and looks at ways of improving cooperation with the possibility of setting up a coordination and support procedures. The findings reveal that FIUs adopt different approaches for Suspicious Transaction Reports and there is lack of regulation on information exchange between FIUs in different EU Member States and FIUs in third countries. In this regard, the Commission will continue to work on improving the current practices in place to address the identified shortcomings, especially about the improvement of coordination and support in cross-border cooperation and analysis. Finally, the fourth report assesses the conditions and the technical specifications and procedures for ensuring secure and efficient interconnection of central bank account registers and data retrieval system in line with Article 32a of Directive 2015/849/EU.

¹⁹ 3/7/9 refer to the number of years by when an exposure is to be 100% covered by collateral.

²⁰ Final Report on the EBA Guidelines on management of non-performing and forborne exposures. Source: <https://eba.europa.eu/sites/default/documents/files/documents/10180/2425705/371ff4ba-d7db-4fa9-a3c7-231cb9c2a26a/Final%20Guidelines%20on%20management%20of%20non-performing%20and%20forborne%20exposures.pdf>



APPENDICES AND GLOSSARY

Appendix A IMPLEMENTED POLICY MEASURES												
Capital Buffer for Other Systemically Important Institutions (O-SII)	2016	2017	2018	2019	2020	Implementation date						
Medirect	0.125%	0.250%	0.375%	0.500%	0.500%	1 Jan. 2016						
HSBC Group Malta	0.375%	0.750%	1.125%	1.500%	1.500%	Revised on 1 Jan. 2020						
Bank of Valletta Group	0.500%	1.000%	1.500%	2.000%	2.000%							
APS Bank Plc	-	-	-	-	0.0625%							
*APS Bank Plc is currently subject to a transitory period for the build-up of its fully-loaded O-SII buffer rate as follows: 2020 – 0.0625%; 2021 – 0.125%; 2022 – 0.1875%; 2023 – 0.25%												
Countercyclical Capital Buffer (CCyB)	2018				2019				2020			Implementation date
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
All credit institutions	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1 Jan. 2016
Macroprudential policy: Reciprocity	2018				2019				2020			Implementation/Withdrawal date
Reciprocity of the Systemic Risk Buffer implemented by Estonia	1.0% for risk exposures exceeding €200 million				1.0% for risk exposures exceeding €200 million				Withdrawn by Estonia as of 1 May 2020 in response to the COVID-19 pandemic			24 Oct. 2016/1 May 2020
Macroprudential policy: Material Third Countries	2017				2018				2019			Implementation date
Identification of Material Third Countries	United States of America, Republic of Turkey, Russian Federation, United Arab Emirates				United States of America, Republic of Turkey, Russian Federation, United Arab Emirates				United States of America, Republic of Turkey, Russian Federation, United Arab Emirates			June 2016
Measures Addressing Credit Risk	2018				2019				2020			Implementation date
Borrower-based measures	Launch of public consultation with stakeholders				Publication of feedback statement on outcome of the public consultation, and Directive No.16				Issuance of Notice to amend Directive No.16 in response to the COVID-19 pandemic			1 July 2019 (amended 1 June 2020)
All credit institutions (BR/09/2019)	Implementation of NPL Reduction Plan for banks which exceed the 6% NPL ratio threshold				Implementation of NPL Reduction Plan for banks which exceed the 6% NPL ratio threshold				Implementation of NPL Reduction Plan for banks which exceed the 6% NPL ratio threshold			2 Jan. 2017
Moratoria on Credit Facilities in Exceptional Circumstances									Publication of Directive No.18 in response to the COVID-19 pandemic			13 April 2020 (amended 23 April and 30 June 2020)

**Appendix B
FINANCIAL SOUNDNESS INDICATORS**

	Core Domestic Banks				Non-Core Domestic Banks				International Banks ¹				Total Banks ¹			
	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019	2015	2016	2017	2018	2019	
Core FSIs																
Regulatory capital to risk-weighted assets	16.00	16.16	17.28	18.13	19.93	22.11	15.48	16.68	17.21	17.08	56.63	49.20	47.93	52.97	48.37	
Regulatory Tier 1 capital to risk-weighted assets	12.15	13.58	15.19	16.00	17.40	18.59	12.27	13.31	16.89	17.08	56.19	46.69	45.28	50.38	48.07	
Non-performing loans net of specific provisions & interest in suspense to total own funds ²	42.84	28.90	22.37	19.73	16.25	7.86	11.96	6.27	11.54	24.89	3.79	8.15	6.89	7.51	1.82	
Non-performing loans to total gross loans	7.22	5.35	4.07	3.36	3.21	4.04	3.99	2.26	3.64	5.50	1.18	1.70	1.88	2.50	1.72	
Sectoral distribution of resident loans to total loans																
Agriculture	0.23	0.19	0.16	0.14	0.15	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	
Fishing	0.10	0.07	0.35	0.23	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Mining and quarrying	0.09	0.07	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Manufacturing	2.75	2.57	2.64	2.49	1.78	0.57	0.31	0.43	0.34	0.36	0.00	0.01	0.01	0.00	0.00	
Electricity, gas, steam and air conditioning supply	2.15	2.30	1.55	1.38	1.48	0.00	0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00	0.00	
Water supply; sewerage waste management and remediation activities	0.54	0.46	0.43	0.39	0.36	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	
Construction	5.24	4.88	4.54	4.37	4.54	1.11	0.42	2.23	5.24	1.72	0.00	0.00	0.00	0.01	0.00	
Wholesale and retail trade; repair of motor vehicles and motor cycles	8.19	7.80	6.85	6.27	5.36	0.00	0.00	0.00	0.00	0.49	0.22	0.15	0.16	0.24	0.24	
Transportation and storage	2.80	2.30	2.27	1.68	1.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Accommodation and food service activities	4.12	3.47	2.78	2.86	3.20	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	
Information and communication	0.83	0.67	0.48	0.52	0.44	0.11	0.29	0.07	0.05	0.13	0.00	0.00	0.00	0.00	0.00	
Financial and insurance activities	5.86	6.79	6.26	6.13	6.17	0.90	2.52	3.71	1.91	2.76	0.03	1.31	0.66	0.00	0.03	
Real estate activities (includes imputed rents of owner-occupied dwellings)	6.70	7.26	6.95	6.90	7.38	3.50	4.18	4.86	4.76	5.82	0.45	0.03	0.00	0.00	0.00	
Professional, scientific and technical activities	1.12	1.26	1.42	1.69	2.59	0.00	0.00	0.86	0.80	0.52	0.00	0.00	0.00	0.00	0.00	
Administrative and support service activities	1.22	1.02	0.81	0.65	1.18	0.11	0.69	1.09	0.76	1.14	0.01	0.01	0.03	0.03	0.00	
Public administration and defence; compulsory social security	1.58	1.13	1.30	1.21	1.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Education	0.44	0.33	0.29	0.28	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Human health and social work activities	0.73	0.71	0.72	0.79	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	
Arts, entertainment and recreation	0.47	0.38	0.32	0.27	0.24	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.00	0.00	0.00	
Other services activities	0.27	0.21	0.18	0.19	0.26	0.00	0.00	0.00	0.26	0.04	0.00	0.00	0.00	0.00	0.00	
Households and individuals (excl. Sole Proprietors)	46.18	48.26	47.51	46.85	50.42	0.14	0.14	2.62	3.45	6.27	0.01	0.01	0.00	0.01	0.01	
Mortgages	39.77	42.28	42.37	42.29	46.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Activities of extraterritorial organisations and bodies	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Non-resident loans to total loans	8.37	7.84	12.16	14.62	10.64	93.57	91.60	82.10	79.25	76.02	98.26	98.46	99.73	99.72	99.69	
Return on assets ³	0.71	0.76	0.70	0.54	0.57	0.18	0.30	0.25	0.16	1.29	1.01	0.96	1.48	1.44	1.18	
Return on equity ⁴	9.84	10.06	9.20	6.54	6.70	1.44	3.38	2.84	1.53	11.53	3.38	3.65	4.91	5.22	7.06	
Interest margin to gross income	64.48	62.25	70.79	62.28	63.68	43.54	31.24	31.06	37.67	33.71	137.81	92.57	79.82	80.78	54.80	
Non-interest expense to gross income	54.15	52.21	58.80	64.34	67.65	73.39	66.52	78.25	62.05	45.74	24.78	31.89	28.13	30.70	39.41	
Non-interest income to gross income	35.52	37.75	29.21	37.72	36.32	56.46	68.76	68.94	62.33	66.29	-37.81	7.43	21.18	19.22	45.20	
Liquid assets to total assets ⁵	31.77	36.52	29.36	28.32	30.44	36.34	33.45	28.58	32.02	35.82	22.72	30.14	20.56	18.12	13.66	
Liquid assets to short-term liabilities ⁶	50.24	55.80	43.49	37.16	38.42	63.26	67.79	37.36	38.81	45.95	83.59	96.31	43.69	46.72	27.28	
Other FSIs																
Total coverage ratio ⁵	43.52	45.91	45.24	44.54	43.65	65.24	53.96	65.89	64.61	49.96	50.37	54.81	51.85	53.02	69.56	
Liquidity Coverage Ratio	165.10	164.43	276.63	316.07	341.63	100.17	184.89	283.87	421.34	381.66	188.27	357.63	279.41	584.83	395.98	
Domestic debt securities to total assets	9.30	7.90	7.00	6.45	6.44	7.74	4.86	3.16	2.00	2.76	0.17	0.09	0.15	0.10	0.08	
Foreign debt securities to total assets	21.80	20.62	16.83	15.82	15.37	12.45	14.96	11.97	14.08	10.63	50.39	46.91	42.65	29.49	26.33	
Unsecured loans to total lending	27.41	25.36	27.70	28.59	25.07	70.87	65.39	67.16	73.39	75.48	30.69	26.69	16.23	17.18	22.56	
Assets to total capital and reserves	13.72	13.33	11.99	12.16	11.51	8.42	12.12	11.49	8.87	8.61	1.96	2.91	3.36	2.53	2.46	
Large exposure to total own funds	96.48	110.94	88.40	92.84	90.62	157.63	288.59	274.94	205.74	192.61	128.94	128.77	119.22	79.09	81.38	
Gross asset position in financial derivatives to total own funds	2.02	1.65	0.87	0.63	0.58	0.33	0.61	0.29	0.00	0.03	67.23	103.03	131.24	168.78	124.52	
Gross liability position in financial derivatives to total own funds	1.27	2.04	1.03	0.92	1.46	0.27	3.60	0.80	0.29	0.06	15.86	69.19	80.24	104.06	81.21	
Personnel expenses to non-interest expenses	51.18	48.76	48.05	37.85	43.77	42.46	49.74	45.61	49.67	48.23	23.18	19.88	16.22	14.17	14.49	
Customer loans to customer deposits	58.22	55.95	58.87	60.88	59.57	60.68	46.51	47.14	50.47	49.89	104.08	108.14	111.55	208.26	374.22	
Net open position in equities to total own funds	15.44	14.01	13.10	10.83	10.60	81.83	146.79	138.75	107.47	108.85	2.74	1.13	3.40	4.77	5.78	
Loan-to-value ⁶																
Residential	77.77	75.12	73.63	72.71	76.67											
Commercial ⁷	56.88	67.49	65.14	56.65	70.46											

¹ Saitbank plc is being excluded in 2018 and 2019 figures following the MFSA's decision to appoint Enna and Young Ltd as a compliant person in October 2018 in terms of Article 29(1)(c) and (d) of the Banking Act. Its license was withdrawn on 30 June 2020.

² Specific provisions from 2018 refer to Stage 3 allowances.

³ Based on profits after tax.

⁴ The liquid assets to total assets and liquid assets to short-term liabilities figures from 2017 are based on COREP returns.

⁵ For the core domestic banks, the ratio includes Reserve for General Banking Risks as per the revised Banking Rule 03/2019.

⁶ The loan-to-value ratio is based on a weighted average.

⁷ The market share of the banks was adjusted to cater solely for the banks that provided commercial real estate loans. The volume of such transaction is limited which explains the volatility in the weighted indicators.

Glossary

Alternative Investment Fund (AIFs): a Collective Investment Scheme (CIS) that raises capital from several investors and invests it in line with a defined policy for the benefit of its investors, and which does not qualify under the Undertaking for Collective Investment in Transferable Securities (UCITS) Directive.

Alternative Investment Funds Managers Directive (AIFMD): a European Union (EU) Directive seeking to regulate the managers of funds other than Undertaking for Collective Investment in Transferable Securities (UCITS).

Amortised cost (AMC): instruments held with the intention of collecting contractual cashflows which are valued at the discounted future payments (principal and interest) over the life of the instrument.

Asset Purchase Programmes (APP): includes all purchase programmes under which private sector and public sector securities are purchased to address the risks of a too prolonged period of low inflation.

Assets-Under-Management (AUM) to net-asset-value (NAV) ratio: calculated by dividing the assets by the NAV.

Borrower-based measures: a combination of instruments that set limits to the amount of money that a natural or a legal person can borrow to purchase a residential property. The measures introduced by the Central Bank of Malta in July 2019 include limits on the loan-to-value ratio at origination (LTV-O), limits on the debt-service-to-income ratio at origination (DSTI-O) where the debt servicing is stressed by 150bps, and limits on the term-to-maturity of the residential real estate loan.

Captive financial institutions and money lenders (CFIML): this sector typically consists of holding companies that have controlling levels of equity of a group of subsidiary corporations and whose principal activity is of owning the group without providing any other service to the businesses in which the equity is held.

Combined ratio: calculated as the sum of net claims and expenses incurred divided by net premia earned.

Countercyclical Capital Buffer (CCyB): credit institutions are required to set aside additional Common Equity Tier 1 capital during periods of excessive credit growth. The aim of the CCyB is to increase banks' resilience in good times to be able to absorb potential losses that could arise in a downturn, enabling the continued supply of credit to the real economy.

Collective Investment Undertakings (CIU): undertakings that raise capital from investors (fund holders) to carry out collective investments in transferable securities and/or in other financial assets.

Cost-to-income ratio: defined as operating expenses (net of amortisation but includes intangible assets other than goodwill) to gross income (net interest income and non-interest income).

Coverage ratio: the ratio of overall provisions and interest in suspense to total non-performing loans (NPLs).

Covered bonds: debt securities issued by an institution which are collateralised against a pool of assets. In the event that the issuing institution becomes insolvent, the bond is covered by these assets.

Credit standards: banks' internal guidelines for loan approvals. These specify the borrower's characteristics such as his/her income levels, age and employment status, which the banks consider in their credit scoring methods.

Credit terms and conditions: the conditions of a specific loan. These consist of the interest rate, loan size, fees, collateral requirements, maturity and other conditions.

Customer deposits: deposits of (i) money market funds (ii) central government (iii) other general government, and (iv) other remaining economic sectors, including households and corporates, but excluding the financial intermediation sector.

Customer loans: loans to (i) money market funds (ii) central government (iii) other general government, and (iv) other remaining economic sectors, including households and corporates, but excluding the financial intermediation sector.

Debt-service-to-income ratio (DSTI): the annual total debt service relative to the total annual gross income of the borrower/s.

Eurosystem funding: credit provided to eligible counterparties (banks) on a collateralised basis. The ECB coordinates the operations and the national central banks carry out these transactions.

Expected credit loss (ECL): under IFRS 9, lifetime ECL is the expected present value of losses that arise if borrowers default on their obligations at some time during the life of the financial asset. For a portfolio, ECL is the weighted average credit losses (loss-given-default) with the probability of default as the weight.

Fair value through profit and loss (FVTPL): instruments measured at fair value whose gains and losses are recognised entirely in the profit and loss account.

Fair value through other comprehensive income (FVOCI): instruments measured at fair value whose gains and losses are recognised directly in the balance sheet as part of other comprehensive income.

Financial Sector Assessment Programme (FSAP): a comprehensive and in-depth analysis of a country's financial sector run by the International Monetary Fund.

Haircuts: risk control measures applied to underlying assets whereby the value of such assets is calculated as the market value less a percentage (the "haircut"). The size of the haircut reflects the perceived risk of holding such an asset.

High-Quality Liquid Assets (HQLA): comprises Level 1, Level 2A and Level 2B assets. Level 1 assets include cash, central bank reserves, and certain marketable securities backed by sovereigns and central banks, among others. Level 2A assets include, for example, certain government securities, covered bonds and corporate debt securities. Level 2B assets include lower-rated corporate bonds, residential mortgage-backed securities and equities that meet certain conditions.

Impairment charges: costs incurred as a result of the decline in the value of assets. These include write-down of loans, investments and non-financial assets, net of recoveries and reversals from an impaired state.

Insurance with profit participation: a savings product where at the end of each year the insurance company may declare a bonus rate which forms part of the annual investment return.

Index and unit-linked products: products that offer both insurance coverage and investment exposure in a single product. The premia paid by policyholders are in part utilised for insurance coverage with the remaining portion pooled with assets from other policyholders and invested in equity and debt instruments.

Internal rating-based (IRB) approach: by means of this approach, as part of the Basel II guidelines and subject to supervisory approval, banks are allowed to use their own estimated risk parameters for the purpose of calculating regulatory capital for credit risk.

iTraxx European Senior Financial index: an index composed of credit default swaps covering senior European financials.

Leverage ratio: calculated by dividing Tier 1 capital by the bank's average total consolidated assets (sum of the exposures of all assets and non-balance sheet items). Credit institutions are required to maintain a minimum leverage ratio of 3%.

Liquid asset ratio for insurance corporations: shows the proportion of liquid assets on total assets (excluding assets held for unit-linked). The ratio is calculated by applying different weights (ranging from 100% for cash to 0% for intangible assets) to the different assets, according to their liquidity profile.

Liquid assets ratio for investment funds: calculated as the liquid assets (i.e. cash and deposits with banks, debt securities issued by MFIs, sovereign bonds, equity and investment fund shares) divided by total assets.

Liquidity coverage ratio (LCR): promotes the short-term resilience of a bank's liquidity risk profile by ensuring that a bank has an adequate stock of unencumbered HQLA that can be easily and immediately converted into cash to meet a bank's liquidity needs for a 30-calendar day liquidity stress scenario.

Liquidity Coverage Ratio (LCR) Regulation: the European Commission Delegated Regulation which supplements the (EU) No 575/2013 of the European Parliament and the Council with regard to liquidity coverage requirement for credit institutions. It lays down detailed rules of the liquidity coverage requirement. It includes details of the assets that can be considered as HQLA and the estimation of total net cash flows over a 30-calendar day period.

Loan loss provisions: an amount set aside to cover for non-performing loans.

Loss ratio: the total incurred losses in relation to the total collected insurance premia.

Loan-service-to-income ratio (LSTI): the annual loan payments relative to the annual gross income of the borrower/s.

Loan-to-deposit ratio: the ratio for assessing a bank's liquidity by dividing the bank's total loans by its total deposits. If the ratio is too high, it means that banks might not have enough liquidity to cover any unforeseen funding requirements; if the ratio is too low, banks may not be earning as much as they could be potentially earning.

Loan-to-income ratio (LTI): the amount of funds borrowed relative to the annual gross income of the borrower/s.

Loan-to-value ratio (LTV): the amount lent for the purchase of a property, expressed as a share of the market value of the property purchased.

Loss given default (LGD): the ratio of the loss on an exposure due to the default of a counterparty to the amount outstanding at default.

Minimum requirement for own funds and eligible liabilities (MREL): banks' minimum requirement for own funds and eligible liabilities so as to be able to absorb losses and restore their capital position.

Mixed funds: investment funds that invest in both bonds and equity with no general policy in favour of either one or the other instrument.

Net asset value (NAV): represents the net value of a fund and is calculated as the value of its assets less the value of its liabilities.

Net expense ratio: the level of expenses incurred by insurance companies as a share of net premia earned.

Net interest income (NII): the difference between the revenue/interest generated by a bank from assets and the expenses/interest paid on its liabilities.

Net interest margin (NIM): expressed as a percentage of the difference between interest income and interest expense to interest-bearing assets.

Net stable funding ratio (NSFR): the amount of available stable funding relative to required stable funding. This ratio should be equal to at least 100% on an ongoing basis. It aims to promote resilience over a longer period by creating incentives for banks to fund their activities with more stable sources of funding.

Non-performing exposures (NPEs): credit facilities and debt securities which are classified as non-performing.

Non-performing loans (NPLs): credit facilities with payments of interest and/or capital which are overdue by 90 days or more, as well as those facilities about which a credit institution has reasonable doubt on the eventual recoverability of funds. The non-performing loans ratio is calculated by taking the value of non-performing loans as a share of the total loan facilities held by the bank.

Own funds: the summation of Common Equity Tier 1 (CET1) capital, Additional Tier 1 capital, Tier 2 capital as well as deductions from the different types of capital, and transitional provisions for own funds in terms of grandfathering.

Other asset allocation funds: those funds which invest in a mix of asset classes such as investing in commodities.

Other Systemically Important Institutions (O-SII): institutions that, due to their systemic importance, are more likely to create risks to financial stability. While maximising private benefits through rational decisions, these institutions may bring negative externalities into the system and contribute to market distortions.

Overall capital requirement (OCR): the sum of the total SREP capital requirement (TSCR), capital buffer requirements and macroprudential requirements, expressed as own funds requirements.

Professional Investor Funds (PIFs): a special class of collective investment schemes anticipated for specific categories of more professional and experienced investors and which fall within the provisions of the Investment Services Act, 1994.

Return-on-assets (post-tax): annual post-tax profits/losses divided by a 12-month moving average of total assets.

Return-on-equity (post-tax): annual post-tax profits/losses divided by a 12-month moving average of shareholders' funds.

Risk reduction measures (RRM): the Risk Reduction Measures Package was adopted by the Council of the European Union and the European Parliament on 20 May 2019 and mainly relate to the revised Capital Requirements Directive (CRD V), Capital Requirements Regulation (CRR II), Bank Recovery and Resolution Directive (BRRD II), and Single Resolution Mechanism Regulation (SRMR II) in order to complete the Single Rulebook.

Risk-weighted assets (RWA): assets multiplied by their respective risk weights as specified in the Capital Requirements Directive.

Solvency capital requirement (SCR): the capital required for insurers to meet their obligations over the next 12 months with a probability of at least 99.5%.

Supervisory Review and Evaluation Process (SREP): a core function of the supervisory authorities in assessing banks' resilience in terms of capital and liquidity requirements. It also considers the viability of banks' business models and overall risk management.

STREAM: the Central Bank of Malta's Structural Macro-Econometric Model of the Maltese economy, which is a traditional structural model built around the neo-classical synthesis.

Systemic Risk Buffer: aims to address systemic risks of a long-term, non-cyclical nature that are not covered by the Capital Requirements Regulation. The buffer level may vary across institutions or sets of institutions. There is no maximum limit on the rate applicable for this buffer, but depending on its level and the impact on other Member States, authorisation from the European Commission may be required.

Tier 1 Capital: mainly composed of equity and retained earnings.

Tier 1 Capital Ratio: Tier 1 capital expressed as a percentage of risk-weighted assets.

Tier 2 Capital: includes, inter alia, undisclosed reserves, revaluation reserves, general provisions, and subordinated term debt.

Total Capital Ratio: own funds (Tier 1 and Tier 2 capital) expressed as a percentage of risk-weighted assets.

Total SREP capital requirement (TSCR): the sum of own funds requirements as specified in Article 92 of Regulation (EU)575/2013 and additional own funds requirements determined in accordance with the criteria specified in the EBA SREP guidelines.

Undertakings for Collective Investment in Transferable Securities (UCITS): a regulatory framework by the European Commission that creates a harmonised regime for the management and sale of mutual funds. The objective was to create a single European market for retail investment funds, while at the same time ensuring a high level of investor protection. This framework allows such funds to seek a single authorisation in one EU Member State, and to register for sale and market across EU Member States.