



BANK ĊENTRALI TA' MALTA  
EUROSISTEMA  
CENTRAL BANK OF MALTA

## **EIGHTH FINANCIAL STABILITY REPORT**

**2015**

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## ABBREVIATIONS

ABS	asset-backed securities
AFS	available for sale
BLS	Bank Lending Survey
BR	Banking Rule
BSI	Balance Sheet Items
CAR	capital adequacy ratio
CBM	Central Bank of Malta
CCyB	Countercyclical Capital Buffer
CET1	Common Equity Tier 1
CDS	credit default swaps
CIS	Collective Investment Schemes
CISS	composite indicator of systemic stress
CRD IV	Capital Requirements Directive IV
CRR	Capital Requirements Regulation
ECAI	External Credit Assessment Institutions
ECB	European Central Bank
EIOPA	European Insurance and Occupational Pensions Authority
EME	emerging market economies
ESA	European System of Accounts
ESI	Economic Sentiment Indicator
EU	European Union
FVTPL	Fair value through profit and loss
GDP	Gross domestic product
GFCF	gross fixed capital formation
GVA	Gross value added
HICP	Harmonised Index of Consumer Prices
HTM	held-to-maturity
JFSB	Joint Financial Stability Board
LCR	Liquidity Coverage Ratio
LGD	Loss Given Default
LTG	Long Term Guarantees
LTV	loan-to-value
MCR	Minimum Capital Requirement
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.
NFC	non-financial corporates
NPE	non-performing exposure
NPL	non-performing loan
NSFR	Net Stable Funding Ratio
NSO	National Statistics Office
NTNI	Non-Traditional Non-Insurance
O-SII	other systemically important institutions
OFI	other financial intermediaries
PCC	Protected Cell Company
PIF	Professional Investor Funds

PSPP	Public Sector Purchase Programme
REMS	Real Estate Market Survey
ROA	return on assets
ROE	return on equity
RWA	risk-weighted assets
SCR	Solvency Capital Requirement
SDW	Statistical Data Warehouse
SII	Solvency II
SME	small and medium-sized enterprises
SSM	Single Supervisory Mechanism
TLTRO	targeted longer-term refinancing operations
ULC	unit labour cost

## COUNTRY ABBREVIATIONS

AT	Austria
BE	Belgium
CY	Cyprus
DE	Germany
EA 19	Euro area 19 Countries
EE	Estonia
ES	Spain
EU	European Union
FI	Finland
GR	Greece
IE	Ireland
LT	Lithuania
LU	Luxembourg
LV	Latvia
MT	Malta
NL	Netherlands
UK	United Kingdom
US	United States

## THE DOMESTIC FINANCIAL SECTOR

### Banks

Core Domestic Banks	Non-Core Domestic Banks	International Banks
APS Bank Limited	BAWAG Malta Bank Limited	AgriBank plc
Banif Bank (Malta) plc	FCM Bank Limited	Akbank T.A.S.
Bank of Valletta plc	FIMBank plc	Credit Europe Bank NV
HSBC Bank Malta plc	IIG Bank (Malta) Limited	CommBank Europe Limited
Lombard Bank Malta plc	Izola Bank plc	Credorax Bank Limited
Mediterranean Bank plc	Sparkasse Bank Malta plc	Deutsche Bank (Malta) Limited
Mediterranean Corporate Bank Limited*		Ferratum Bank Limited
		NBG Bank Malta Limited
		Nemea Bank Limited
		Pilatus Bank Limited
		ECCM plc
		Satabank plc
		Turkiye Garanti Bankasi A S
		Novum Bank Limited
		Yapi Kredi Bank Malta Limited

### Investment Funds

Collective Investment Schemes	Professional Investor Funds
APS Funds SICAV plc	Amalgamated Investments SICAV plc
Calamatta Cuschieri Funds SICAV plc	EOS Sicav plc
Global Funds SICAV plc	HSBC Malta Funds SICAV plc
HSBC Malta Funds SICAV plc	Landoverseas Fund SICAV plc
HSBC No-Load Funds SICAV plc	Rascasse Capital SICAV plc
Vilhena Funds SICAV plc	

### Insurance Companies

Life Insurance Companies	Non-Life Insurance Companies
MSV Life plc	MAPFRE Middlesea plc
HSBC Life Assurance (Malta) Limited	Citadel Insurance plc
GlobalCapital Life Insurance	Elmo Insurance Limited
	Gasamamo Insurance Malta
	Atlas Insurance PCC Malta

\* A subsidiary of Mediterranean Bank plc.

This edition of the *Financial Stability Report* is based on the above categorisation of banks.



## PREFACE

Investment, as a fundamental contributor to an economy's productive capacity, is a key driver of sustainable economic growth. Financial stability enables the financial system to efficiently allocate savings to productive investment opportunities. Moreover, financial stability fosters trade and financial activities with and between national economies by enabling the efficient processing of payments and allowing the financial system to absorb shocks that could otherwise impair its performance, and thereby, impact the economy adversely.

The *Financial Stability Report*, hereinafter referred to as the *Report*, presents both the international and domestic macro-financial conditions within which the domestic financial system operates. It assesses developments and resilience in the domestic financial system, namely the banking sector, insurance companies and investment funds, which play a significant role in the Maltese economy. The *Report* goes on to describe the domestic macro-prudential policy framework and instruments at the disposal of the Macro-Prudential Authority. Finally it identifies potential sources of systemic risk, highlighting the policy measures that were taken, and recommendations to preserve and, when necessary, enhance the resilience of the financial system.

The *Report* is prepared by the Financial Stability Department of the Central Bank of Malta and reviewed and endorsed by the Financial Stability Committee. The Committee is chaired by the Governor of the Bank, and includes as members the Deputy Governors, Chief Officer – Risk, Chief Officer – Investments and Financial Control, and the Advisor to the Governor.



## 1. OVERVIEW

In 2015, global economic activity remained subdued, weighed down by the slowdown in the Chinese economy, lower commodity prices, and strains in some large emerging market economies (EME). In the developed world, growth was modest particularly in the United States and in the United Kingdom. In the euro area, growth in real gross domestic product (GDP) started to pick up but remained muted and uneven across Member States. Private consumption and investment were the main driving forces behind this growth. Unemployment in the euro area started to decline, albeit still above pre-crisis levels and with wide heterogeneity across countries, while inflation remained very low, suppressed by developments in oil prices. Within this context, towards the end of 2015, monetary policy was eased further, bringing the overnight deposit facility rate into negative territory. Further easing was implemented in the first half of 2016 with the Asset Purchase Programme expanded to €80 billion per month, extending the list of eligible assets falling under the new Programme. Banks and insurance companies in the euro area continued to report disappointing returns, on the back of a prolonged low interest rate environment. The low level of interest rates increased the possibility for financial institutions to engage in search for higher yield, thus heightening the potential vulnerabilities arising from an abrupt reversal in risk premia. This, together with the deceleration in EME and the high stock of legacy non-performing loans (NPL) are key challenges for the euro area financial system.

In 2015, the Maltese economy grew by 6.4% in real terms, the second largest growth rate in the euro area. This growth was underpinned by higher investment, and to a lesser extent domestic consumption, as net exports contributed negatively to GDP growth due to relatively stronger growth in imports. Unemployment levels declined further to a historic low, whereas productivity improved. The Maltese Government sustained its efforts to improve public finances, with gross public debt and the fiscal deficit falling to 63.9% and 1.5% of GDP, respectively, by the end of 2015. The yields on Malta Government Stock (MGS) continued to trend downwards, whereas the spread narrowed.

Gross value added accelerated to 9.0% in 2015, almost double the rate recorded in 2014. In terms of performance, corporates reported further improvement, with gross operating surplus rising by 11.7%, driven mainly by services-oriented firms.

Profit of the construction and real estate sector improved as its gross operating surplus grew by around 11% in 2015. This pick-up is also reflected in other indicators related to this sector, as evidenced by the higher number of permits for residential dwellings issued by the Planning Authority, and by the recovery in residential real estate prices.<sup>1</sup> Other sectors, such as the wholesale and retail trade sector and the accommodation sector also reported strong growth in operating surplus, up by around 13.5% and 15.3%, respectively, over the previous year. Meanwhile, developments in manufacturing remained subdued. Corporate indebtedness increased by 5.1% during 2015, albeit in relation to GDP, this declined to 146.0% given the faster rate of increase in GDP, and to around 82% on a consolidated basis (i.e. after taking into account inter-company loans).

Household debt increased, at a slower rate than GDP, predominantly owing to mortgages. The latter were partly driven by lower interest rates and time-bound tax incentives for first-time buyers. Household indebtedness continued to trend downwards, falling to 57.8% of GDP, below the euro area average. Notwithstanding, net financial wealth expanded further driven predominantly by higher deposits and equity holdings. Furthermore, the median house price-to-income ratio remained well below the levels experienced during the housing market boom period of 2005/2006.

Looking ahead the economy is expected to continue to perform favourably supported by a strong labour market and further consolidation in public finances.

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<sup>1</sup> Planning Authority was formerly known as Malta Environment and Planning Authority.

In 2015, the size of the banking sector in Malta stood at 537.3% of GDP, down from 648.7% a year earlier. The assets of core domestic banks expanded further, albeit at a slower rate than in 2014. Larger asset holdings were channelled into deposits with the Central Bank of Malta and, by a lower extent, a larger loan portfolio. Meanwhile, the securities portfolio contracted by 2.4%, on account of lower holdings of bonds issued by foreign corporates, predominantly monetary financial institutions. Holdings of domestic sovereign paper declined, albeit by a lesser extent. In terms of quality, the bond portfolio of core domestic banks is of high quality.

During the period under review, the loan portfolio of the core domestic banks expanded by just 0.8%, decelerating somewhat since 2014. The slowdown in loan growth reflected a fall in non-resident lending. This was driven by the operations of a bank, which transferred part of its loan portfolio to its subsidiary abroad. The fall in non-resident loans was, however, fully offset by higher resident lending, up by 2.2% sustained by mortgage loans. Despite a fast growing economy, corporate credit growth remained muted. Indeed resident corporate lending contracted in 2015, partly driven by lower credit channelled to the public sector. Furthermore, lower lending towards the construction and real estate sector and energy-related companies also contributed to the drop in corporate lending by core domestic banks.

The stock of NPLs remained a key challenge, particularly for the core domestic banks. By the end of 2015, the NPL ratio stood at 7.2%, a drop of about 0.4 percentage points compared to 2014. The increase was mainly due to the non-resident segment and was institution-specific, as otherwise the amount of resident NPLs declined. The decrease in resident NPLs was driven predominantly by lower NPLs pertaining to construction and real estate sector, reflecting the recovery in this business. At the same time, the core domestic banks continued to build their total loan loss provisions, up by 7.3%, pushing the total coverage ratio to over 41%. After taking into account the Reserve for General Banking Risks set up under the Banking Rule 09/2013 which specifically targets credit risk in the lending portfolio, the coverage ratio increases to 43.5%.

The expansion in the balance sheet size of the core domestic banks was funded through customer deposits, which continued to flow in strongly, financing almost 82% of total assets. While demand deposits started to gain ground, short-term customer deposits exceeded two-thirds of total customer deposits. Interbank funding and debt securities issued increased, whereas Eurosystem funding declined. The core domestic banks remained highly liquid with ratios well above the minimum regulatory thresholds introduced in 2015, particularly those governed by the Capital Requirements Regulation and Directive (CRR/CRD IV) framework.

Following a drop in 2014, profits after tax of the core domestic banks rebounded and increased by 9.8%. This improvement was driven by both net interest income and non-interest income, which offset higher non-interest expenses. The rise in net interest income, which is the prime income source for the core domestic banks, was underpinned by a widening in the interest margin between loans and deposits, on the back of lower interest rates and a drop in interest expenses. Higher non-interest income was generated by trading activities and net fees and commissions, whereas higher costs were incurred due to higher staff costs, including expenses relating to early retirement schemes, and other operating expenses.

Within a challenging environment of low credit growth, declining NPLs, low interest rates and regulatory changes, the core domestic banks remained prudent in their lending practices and investment strategies.

In 2015 the capital position of the core domestic banks remained strong with capital ratios comfortably exceeding the regulatory requirements. Furthermore, the robustness and quality of capital was further reinforced by an expansion in Tier 1 capital. The capital level of the core domestic banks was subject to several stress tests, covering a number of severe, but plausible shocks. Accordingly, such tests revealed that the level of capital of the core domestic banks remained resilient towards such risks, without breaching regulatory minimum thresholds. Stress tests were also conducted on the banks' liquidity levels, which banks met comfortably, even under stressed scenarios.

The six non-core domestic banks reported further expansion in their balance sheet, predominantly in the form of higher holdings of government bonds, and to a lesser extent by claims on the Central Bank of Malta. Despite higher sovereign bond holdings, the securities portfolio contracted, largely impacted by the winding-down process of a bank. Similarly, total loans declined, particularly in resident lending. The funding structure of the non-core domestic banks remained broadly stable in 2015, with slightly more than half of their operations financed through customer deposits; rising further during the year, driven predominantly by non-resident deposits. The non-core domestic banks reported a marked recovery in profits during 2015, owing to lower impairment charges compared to a year earlier. Furthermore, these banks remained well placed in terms of liquidity and capital buffers, meeting the regulatory benchmarks.

Although three new banks started operating in 2015, the overall assets of international banks contracted by around 20%. This fall derived from lower claims on government and other banks, mostly driven by the operations of two branches of non-EU banks, which account for a considerable share of total assets of this category of banks. The liabilities structure of international banks remained broadly stable, with their assets largely financed from interbank funding, mainly with related parties. Post-tax profits improved by over 10% compared with a year earlier, on account of lower impairment charges and higher non-interest income. International banks remained well capitalised and their liquidity levels remained satisfactory.

The linkages of both the non-core domestic banks and international banks with the domestic economy remained limited.

The domestic insurance sector continued to perform favourably, underpinned by conservative investment strategies targeted towards high-rated assets. Indeed, despite the prevailing low interest rate environment, there is no evidence of a shift towards riskier assets by the domestic insurance companies. However, profits improved further, supported by the underwriting business. Domestic insurance companies are well capitalised with low leverage levels. The introduction of Solvency II in January 2016 is expected to enhance further the resilience of this sector to adverse developments.

The domestic investment funds sector grew further in 2015, pushed by the Collective Investment Schemes (CIS) as well as by Professional investment Funds (PIF). The expansion in the CIS was driven by their core business. Indeed, unlike the expansionary trends observed in the EU, the engagement of domestic investment funds in bank-like activities remained negligible. The composition of their investment portfolio remained conservative and skewed towards bond holdings, the majority of which were MGS. Equity holdings, composed predominantly of equity issued in Malta, continued to account for a minor proportion of total assets. PIF more than doubled in size, driven predominantly by a transaction involving the take-over of a loan portfolio. However, investment assets remained the main asset component of PIF, mostly in the form of equity holdings. The performance of the investment funds sector weakened somewhat during 2015. The inherent linkages of the investment funds sector and the core domestic banks, in the form of cross-holdings, remained relevant.

The Central Bank of Malta has been legally empowered to issue, amend or revoke directives in order to implement macro-prudential policies. Directive 11 of the Central Bank of Malta regulates the current domestic macro-prudential framework. The Bank coordinates with the European Systemic Risk Board to implement its recommendations where relevant.

The Central Bank of Malta has developed and published its own macro-prudential policy strategy and implemented the Countercyclical Capital Buffer (CCyB) and the capital buffer for other systemically important institutions (O-SII). A zero rate has been set for the CCyB due to overall subdued credit growth. Three banks were identified as O-SII with a buffer range of 0.5% to 2.0%, subject to a four-year phase-in period running up to 1 January 2019. Consideration of further policy options is undertaken on a continuous basis taking into account any emerging risks.

During 2015, the financial sector in Malta continued to show strong resilience. Banks met the tighter regulatory requirements introduced during the year, without compromising their overall operations and core business. However, challenges persisted, with headwinds related to the external environment intensifying further. Apart from heightened geopolitical instabilities, activity in EMEs continued to decelerate, impacting global economic growth. The limited interlinkages between such economies and institutions operating in Malta have limited direct contagion implications. However, second round effects cannot be excluded.

In view of these external challenges, the Central Bank of Malta encourages banks to improve further their coverage ratio and to maintain prudent dividend policies, given the tighter regulatory requirements. Banks are also encouraged to continue exercising prudent lending practices. On a longer-term perspective, banks are also encouraged to reduce the stock of legacy non-performing debt in an orderly manner.

**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 2014	Risk position as at 2015			Risk outlook for 2016
				Moderate	Medium	Elevated	
<b>Vulnerabilities within the financial system</b>							
The level of non-performing loans	Credit	Cyclical/ Structural	↓		●		↔
Concentration in bank lending	Credit	Structural	↔	●			↔
Subdued credit developments	Profitability	Cyclical/ Structural	↔		●		↔
Reliance on short-term funding	Liquidity	Cyclical/ Structural	↑	●			↔
Interlinkages between banks and the insurance and the investment fund sectors	Contagion	Structural	↔	●			↔
<b>Vulnerabilities outside the financial system</b>							
Domestic macroeconomic developments	Credit, Profitability	Cyclical	↓	●			↓
Developments in key economic sectors reliant on bank credit	Credit	Cyclical/ Structural	↓		●		↔
Exposures of the financial sector to domestic sovereign securities	Profitability	Structural	↔	●			↓
Economic conditions in the euro area	Credit, Profitability	Cyclical	↓		●		↔
Euro area sovereign debt crisis	Contagion, Profitability	Cyclical	↓		●		↔
Geopolitical uncertainties	Contagion	Structural	↑		●		↑
Search for yield owing to the low interest rate environment	Profitability	Cyclical	↔	●			↑

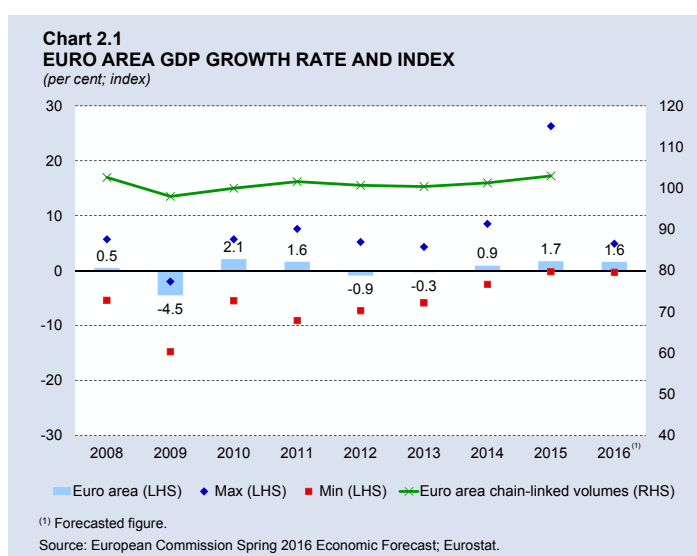
## 2. The MACRO-FINANCIAL ENVIRONMENT

### 2.1 The international scenario

In 2015, world economic growth slowed down, driven by deteriorating economic performance of emerging and developing countries. Lower economic output in some of the larger countries like Russia and Brazil, and slower growth in China coupled with the sharp drop in commodity prices, were the main contributors to the overall weaker global growth. In the developed world, growth was slightly better compared to 2014; a trend which is expected to continue. In the United States, economic recovery was sustained during 2015, leading to an incipient reversal in monetary policy towards the end of that year. On the other hand, the strong acceleration in the United Kingdom's economic output in 2014 petered out in 2015, although labour market conditions remained strong. Monetary policy is expected to remain loose in the United Kingdom as projections indicate a slowdown in economic activity. World growth projections point towards a slow recovery in the coming two years, despite the developments in China.<sup>1</sup>

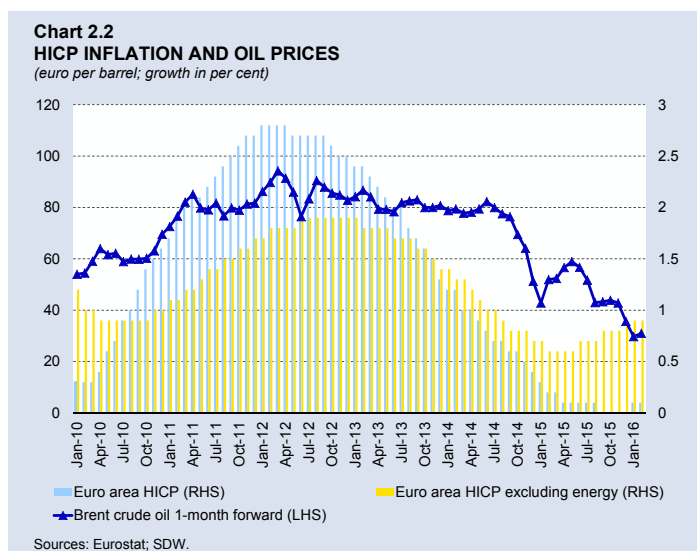
Euro area real gross domestic product (GDP) growth in 2015 reached 1.7%; almost double that of the previous year. Despite this recovery, heterogeneity in growth across the euro area remained significant (see Chart 2.1). Private consumption, and to a lower degree investment, were the main contributors to GDP growth. Economic output in the euro area has surpassed the 2008 level, for the first time since the onset of the financial crisis. Lower financing costs and commodity prices, in conjunction with a weaker exchange rate, have sustained economic recovery, and are expected to continue to do so in the short to medium-term. Such recovery in growth was complemented by positive developments in the labour market, although the unemployment rate is still well above pre-crisis levels standing at 10.9% as at end 2015, with significant differences across member states. Despite these positive developments, elevated levels of sovereign debt in a number of countries and the impact from a slowdown in emerging economies may act as a drag on investment and economic growth in the euro area. Looking ahead, geo-political issues; the migration crisis, and the outcome of the referendum in the United Kingdom relating to its membership in the European Union (EU), are all factors that may influence economic activity in the euro area in the short to medium-term.

Inflation in the euro area remained very low during 2015, suppressed by developments in oil prices, which continued to drop (see Chart 2.2). The recovery in oil prices, if any, is expected to be somewhat muted, impacted by adverse economic developments in China and other large emerging economies coupled with oil-producing countries' reluctance to restrain supply. Euro area annual growth in the Harmonised Index of Consumer Prices (HICP) stood at 0.2% in December 2015, with the twelve-month moving average hovering around 0%, well below the European Central Bank's (ECB) inflation target of below but close to 2%. In this context, euro area monetary policy was eased further in the last months of 2015, with the ECB lowering the overnight deposit facility rate by a further 10 basis points to -0.3%. In March 2016, monetary policy was loosened further with the main refinancing rate and the marginal lending facility rate lowered by a further 5 basis points to reach 0% and 0.25%, respectively. Moreover, the deposit facility rate was cut by a further 10 basis points to -0.4%. In addition, the Asset Purchase Programme

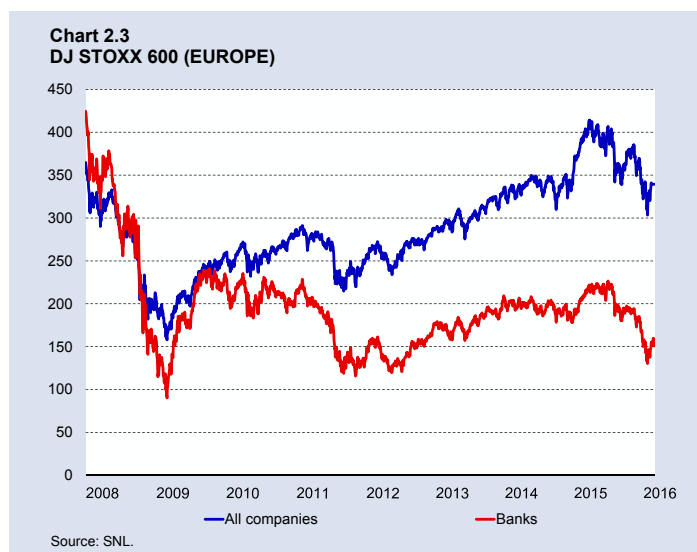


<sup>1</sup> World Economic Outlook Update January 2016, International Monetary Fund.

was expanded to €80 billion per month starting from April 2016. The revised programme also extended the list of eligible assets to include investment grade euro-denominated bonds issued by non-bank corporations established in the euro area. The ECB also announced a new round of four targeted longer-term refinancing operations (TLTRO II) starting in June 2016, with a maturity of four years and interest rates that can be as low as the overnight deposit facility rate. These measures were announced against a background of forecasts pointing towards higher but still weak inflation for 2016.



In the euro area, the prolonged low interest rate environment has impacted the profitability of banks and insurers, leading to disappointing returns. This, together with a very moderate economic recovery and the large stock of legacy non-performing loans (NPL) in a number of countries, has also affected the banks' intermediation ability. As a result, the ability of banks to strengthen their capital buffers and extend credit was curtailed. On a positive note, the Bank Lending Survey carried out in 2015Q4 indicated that in aggregate, euro area banks have eased credit standards on mortgages and corporate credit, while loan demand from households and firms is also expected to improve (see Box 1). Should economic activity turn out weaker than anticipated, the quality of assets could deteriorate further, impacting negatively market sentiment. There are also concerns on the size of exposures that euro area banks have to the oil industry, which may lead to significant impairments if oil prices remain persistently low since this affects the medium-term viability of oil producing firms. In fact, stock market movements during the last quarter of 2015 and in the first three months of 2016 were triggered by uncertainty among market participants based on weak financial sector returns and the sustainability of the economic recovery (see Chart 2.3). Furthermore, macro-economic developments in emerging countries, particularly China, and the significant declines in related stock market valuations have also impacted euro area stock markets, especially bank equities. Concerns on some banks, in conjunction with perceived vulnerabilities in the sector have resurfaced, particularly following the result of the UK's referendum on EU membership which led to lower bank equity prices. Moreover, markets are concerned on the effects of negative interest rates on bank profitability and their business models, exacerbated by the lack of clear lower bound limits for policy rates. This could lead to further pressure on euro area banks' profitability, hampering their ability to raise funds, with repercussions on their cost of equity. The VDAX volatility index rose in the last few months of 2015 and early 2016, indicating heightened volatility resulting from



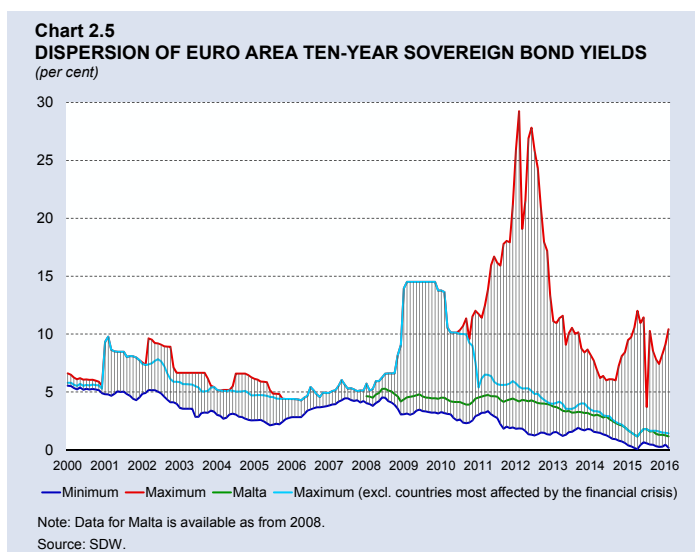


increased uncertainty permeating financial markets (see Chart 2.4).

Another concern stemming from the low interest rate environment relates to the search for yield by euro area banks and non-bank financial institutions to improve their returns. Such behaviour has led institutions to take on more risk and therefore become more susceptible to larger losses and deterioration in asset quality in the event of an abrupt reversal of global risk premia. This is compounded by the increased penetration in the market of less regulated non-bank financial intermediaries. As indicated above, stock market movements have

already highlighted the possibility of sell-offs in international markets. Abrupt asset-price re-adjustment and large scale outflows, especially by investment funds, may have an adverse effect on the overall financial system. Potential spill-overs onto both the financial and the non-financial sectors may further damage the fragile confidence of investors.

Investor sentiment is also challenged by sovereign and non-financial sector debt sustainability concerns in a possible context of economic growth turning out below expectations. Fiscal consolidation efforts continued during 2015, although for some countries concerns on the sustainability of sovereign and non-financial sector debt remain. The ratio of general government gross debt-to-GDP dropped to 90.7% by end-year in the euro area. Similarly, the aggregate euro area fiscal deficit narrowed to 2.1% of GDP. The improving prospects for sovereign debt dynamics, combined with efforts to de-couple links with the banking sector have led to a fall in the 10-year sovereign bond yield (see Chart 2.5). However, these developments mask pockets of vulnerabilities at the individual country level. Market responses to heightened risk levels are reflected in higher and more volatile yields and widening spreads for sovereign debt of countries most affected by the financial crisis.<sup>2</sup> For most of 2015, the negotiations between Greece and its creditors had an impact on the euro area sovereign 10-year bond yields as they created uncertainty over the direction the euro area will take in terms of the Greek bailout talks and the ensuing impact of a Greek default on the banking sector and other sovereigns. However, once an agreement was reached in August 2015, yields of economically stronger member states started to fall again. Looking ahead, the improvement in government finances is expected to continue. However, there are risks which may derail such path, particularly owing to lower-than-expected economic growth, the impact of geo-political developments and the materialisation of risks in individual countries.



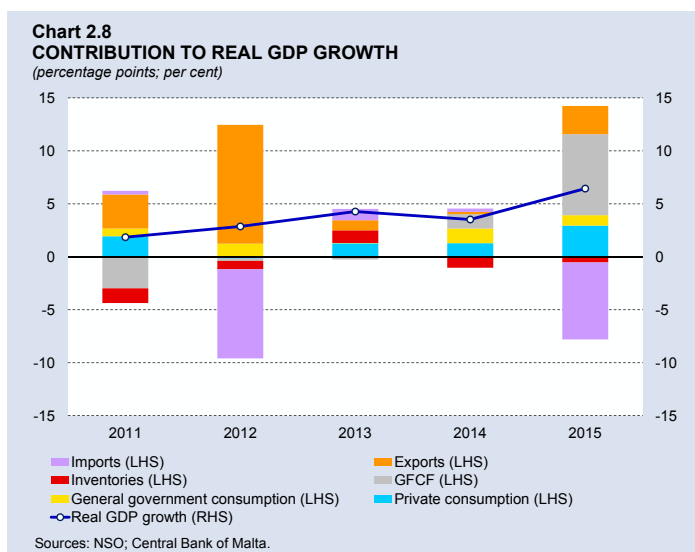
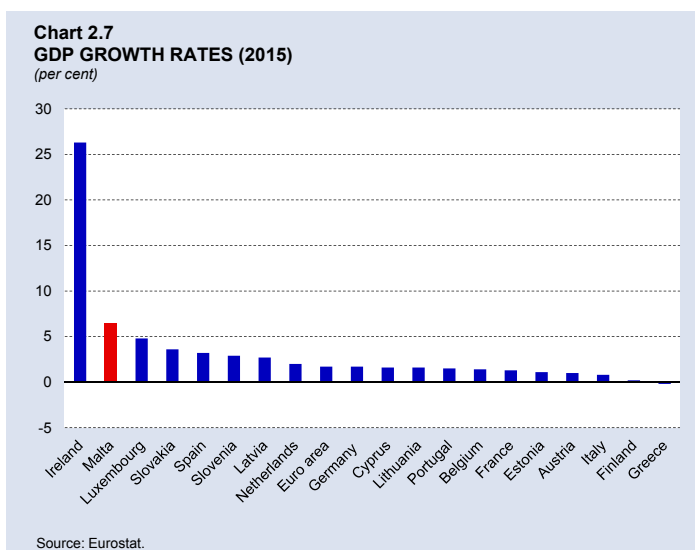
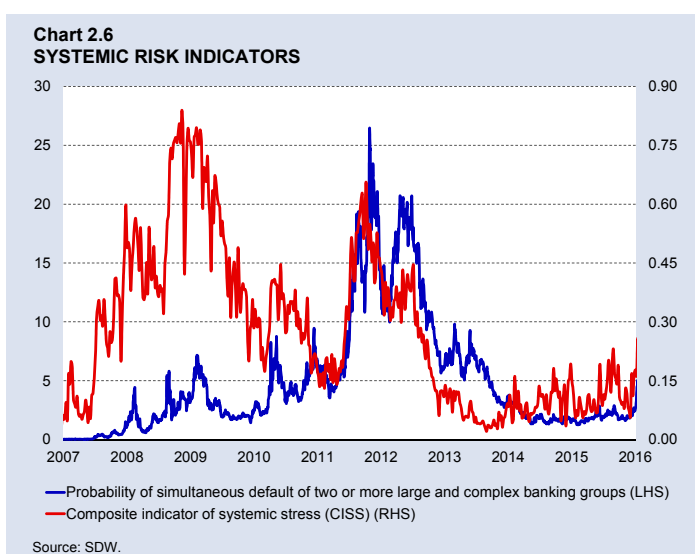
<sup>2</sup> These countries are Cyprus, Greece, Ireland, Italy, Portugal, Slovenia and Spain.

In this environment, despite the modest recovery in the euro area economy, financial stability risks appear to have increased during the latter half of 2015 and could intensify further in 2016. The intensification of risks is underpinned by the increased volatility in global financial markets amid a rise in vulnerabilities in emerging market economies coupled with weak profitability prospects for financial institutions and unresolved legacy loans. The latter will hamper sustainable credit intermediation, which, at the same time, may dent banks' profitability. This is indicated by the composite indicator of systemic stress (CISS) and in the probability of simultaneous default of two or more large complex banking groups (see Chart 2.6), which have reversed slightly, albeit remaining way below the levels reported during the peak of the financial crisis.

## 2.2 The domestic scenario

### Economic developments

Robust macroeconomic conditions in Malta continued to support financial stability. Real GDP growth accelerated to 6.4% in 2015, up from 3.5% recorded in the previous year. In 2015, Malta's economic growth was the second largest recorded in the euro area, after that of Ireland (see Chart 2.7). This expansion was driven by domestic demand, with consumption expenditure maintaining its upward trend and with investment increasing substantially. The latter expanded mainly through investment on equipment and to a lesser extent higher expenditure on construction. The external sector contributed negatively to GDP growth, as imports expanded at a faster pace than exports (see Chart 2.8), reflecting the strong import content of both consumption and investment. Buoyant domestic economic conditions were mirrored in Malta's Economic Sentiment



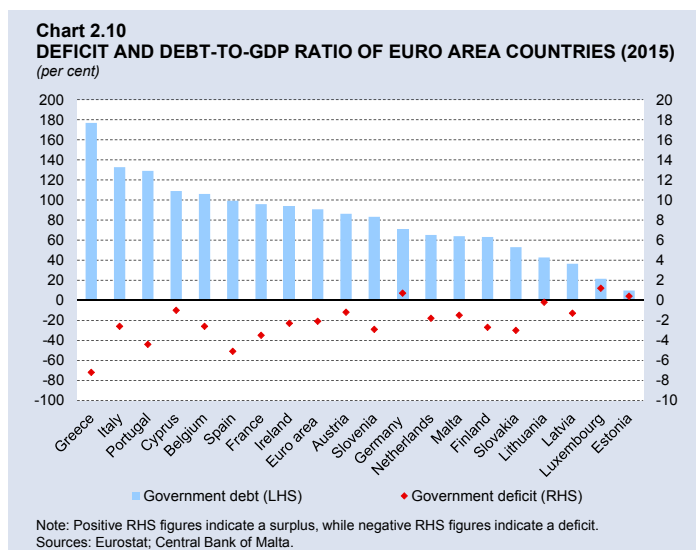
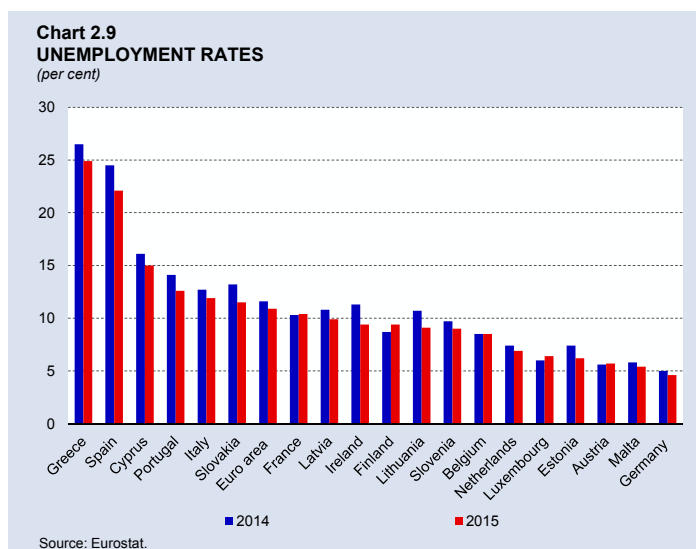
Indicator (ESI), which on average was higher than in 2014, with all relevant sub-components improving from the previous year.<sup>3</sup>

Labour market developments mirrored the domestic macroeconomic environment, as the number of registered unemployed dropped from 6,287 in December 2014 to 4,615 by the end of 2015.<sup>4</sup> According to the Labour Force Survey the number of persons in employment expanded by 3.0%, with the unemployment rate falling to its lowest level of 5.4% (see Chart 2.9). This is significantly below the euro area average, with Malta registering the second lowest unemployment rate

after Germany.<sup>5</sup> Tight labour market and favourable economic conditions led to an increase in compensation to employees, which rose by 8.8%, compared to 5.7% in 2014. Given the current low inflation environment, the increase in incomes improved the purchasing power of households. Although inflation has risen and was above the euro area average, nevertheless it remains at a historically low level and well below the ECB's target. HICP inflation stood at 1.2% in December 2015 (12-month moving average), compared to 0.8% in the corresponding month of 2014. The rise in inflation was mainly driven by food and beverages; and recreation and culture sub-indices.

Productivity growth in Malta also improved during 2015, with gains in productivity being stronger than the euro area average. Unit labour costs (ULC) in Malta decreased owing to productivity gains which outpaced the growth in compensation per employee. In contrast, ULC in the euro area increased, further improving price competitiveness in Malta. The Harmonised Competitiveness Indicator for Malta dropped again in 2015, reflecting continued depreciation of the euro in a context of further monetary easing announced by the ECB and the start of the tightening cycle in the United States. Meanwhile, the current account balance for Malta remained in surplus and the net credit position widened from 2014.

The Maltese Government kept its momentum in its efforts to put public finances on a sounder footing. The general government debt-to-GDP ratio maintained its downward trend, declining from 67.1% in 2014 to 63.9% by the end of 2015. Similarly, the fiscal deficit declined by 0.5 percentage points, to 1.5% of GDP. Both these public finance indicators show a healthier position when compared to the euro area average (see Chart 2.10).

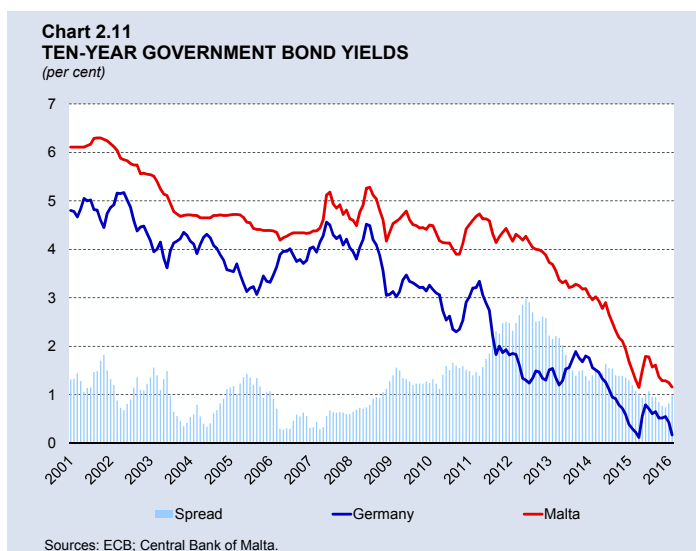


<sup>3</sup> The ESI is a weighted average of five different confidence indicators, namely for industry, services, consumers, retail trade and construction.

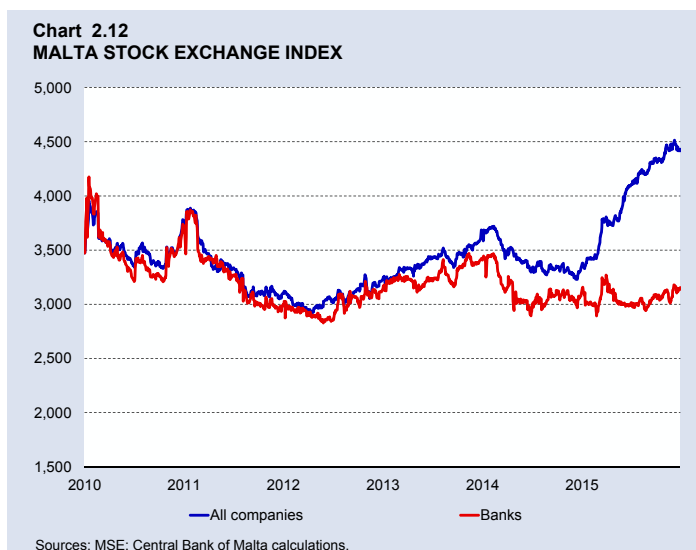
<sup>4</sup> NSO Release 032/2016.

<sup>5</sup> Employment growth was 2.9% in 2015 according to National Accounts ESA 2010 data.

Malta Government Stock (MGS) 10-year yields continued the downward trend observed since 2011, except for a spike in mid-2015 which reflected market concerns during the concerted negotiations between Greece and its creditors (see Chart 2.11). Following the resolution of those discussions, the yield on MGS resumed a downward path and has now reached the levels observed before mid-2015. The spread between the 10-year MGS and German bund also generally narrowed during the year. Demand for domestic Government paper remained strong, with debt issued in 2015 being heavily oversubscribed and largely taken up by the retail sector. Credit ratings for sovereign debt in Malta remained unchanged in 2015 with a stable outlook. During the first six months of 2016, one credit rating agency denoted the outlook for the Maltese economy as positive, while another two rating agencies maintained the same rating of the previous year.<sup>6</sup>



The Malta Stock Exchange (MSE) Equity Index rose by 33.0% during 2015 as the share price of a number of quoted non-bank equities increased strongly, while the price of bank equities rose by only 2.5% (see Chart 2.12). This, in part, reflects the current strong performance of the Maltese economy,



which is boosting profitability of the non-financial corporate sector. The value of trading in equities amounted to €81.5 million in 2015, nearly €31 million more than in 2014. Trading in non-bank equities more than doubled to €44.6 million, while trading of bank equities went up by about €9 million to €36.9 million.

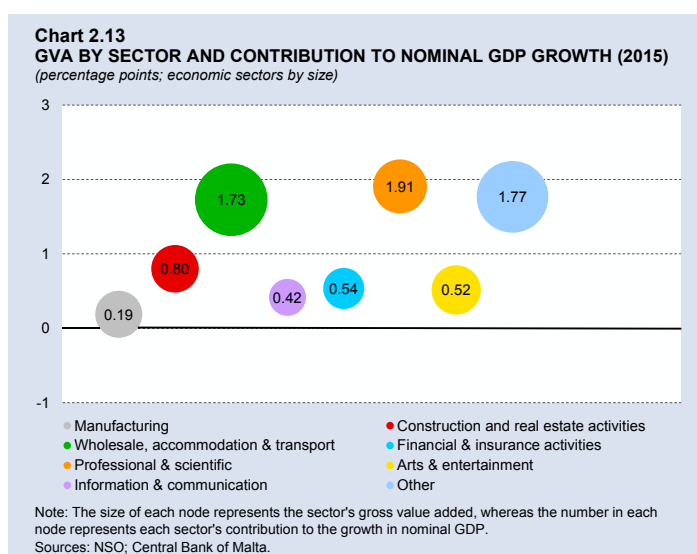
The bond market also performed satisfactorily, with trading volume totalling €50.8 million in 2015, €16.6 million higher than in 2014. This increase largely reflected private issues, as trading in MGS declined by 6.7%, equivalent to €56.4 million, which may have partly resulted from the absorption of MGS by the Central Bank of Malta through the Asset Purchase Programme.

### Corporate sector

The performance of the corporate sector remained strong during the year under review. The growth in gross value added (GVA) accelerated to 9.0%, almost double the rate recorded in 2014. Firms in services sustained the increase in output, contributing 6.8 percentage points to the overall growth rate. The main

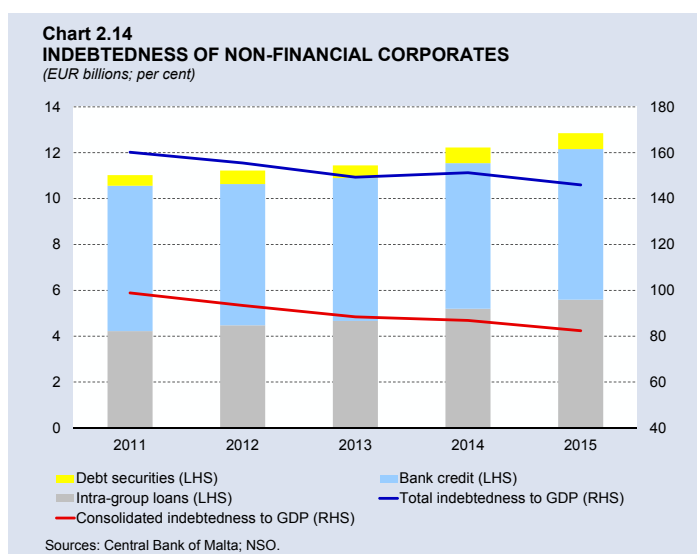
<sup>6</sup> In April 2016 DBRS maintained Malta's rating at A with a stable outlook. In July 2016, Standard and Poor's reaffirmed Malta's rating at BBB+ with outlook denoted as positive. In August 2016 Fitch reaffirmed a credit rating of A for Malta, upgrading its outlook from stable to positive.

contributors were the wholesale and retail, accommodation and transport sector; and the professional and scientific activities sector, as indicated in Chart 2.13. The latter sector, which is mostly made up of professionals offering services related to information technology, accountancy and legal practices, has been expanding for a number of years on the back of a benign economic environment, a well-trained workforce and strong legal infrastructure. Despite the major role this sector plays in the economy, its reliance on bank funding is negligible. Furthermore, most of the contribution from the 'other' category emanates from services mainly provided by the public sector including health, education and public administration.



The domestic economy continued to move away from manufacturing, construction and real estate activities, which combined added only 1.0 percentage point to nominal GDP growth. The financial return of corporates, as defined by the gross operating surplus, rose by 11.7%, exceeding growth in compensation of employees. The improvement in productivity coupled with contained increases in labour costs underpinned the strength of the corporate sector, characterised by output with higher value added, translating in higher income, amidst a historically low inflation environment.

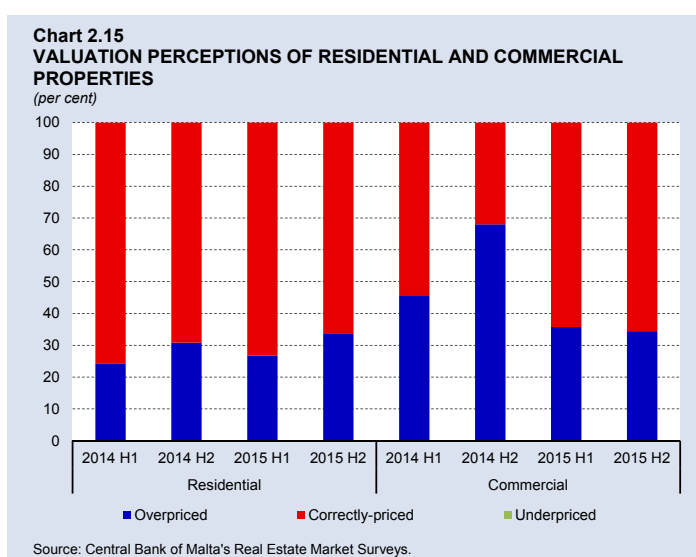
The level of debt (including bank credit, bonds and intra-group loans) held by the resident non-financial corporate sector continued to rise, albeit at a slower pace of 5.1% compared to 6.8% in 2014. The indebtedness of the non-financial corporate sector as a share of GDP dropped by 5.3 percentage points to 146.0%, given the faster rate of increase in GDP.<sup>7</sup> Nearly 44% of non-financial corporate indebtedness consists of intra-group funding from parent companies. Hence, corporate debt, net of intra-group debt, would drop to around 82% of GDP, which was also lower than the previous year (see Chart 2.14). Meanwhile, only 5.4% of total debt is in the form of debt securities, with the remaining element of corporate debt consisting of bank credit and intra-group loans. The year under review was characterised by an increase of 1.4% in debt securities. This contrasts with 2014, when non-financial corporates relied to a larger extent on market financing compared to previous years. The structure of corporate indebtedness reflects the composition of the sector, with most firms being classified as small and medium-sized enterprises (SME) and relying



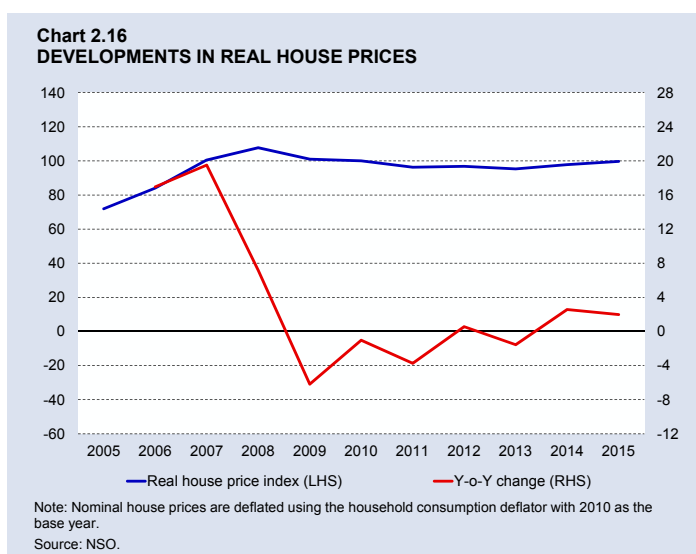
<sup>7</sup> Total indebtedness of non-financial corporates excludes holding companies, given that the latter are classified as part of the financial sector following the introduction of ESA 2010.

extensively on bank credit. In 2016 new initiatives were launched by the MSE attempting to address this shortcoming and facilitate access to market financing in Malta. This is in line with the on-going discussion at EU level to facilitate access to capital markets for smaller enterprises.

The construction and real estate sector contributed 0.8 percentage points to nominal GDP growth, a significant increase from a contribution of merely 0.1 percentage point in 2014. Gross operating surplus expanded by nearly 11%, with the largest contribution emanating from real estate activities. These developments mirrored various developments including on-going large infrastructural projects and the marked recovery in the property market, which started in 2014. In 2015, the confidence indicator for the construction sector turned positive on average, reversing the negative trend which characterised it since inception. Similarly, replies from real estate agents participating in the Central Bank of Malta's Real Estate Market Survey (REMS), revealed optimism with regard to the recovery in the local property market, namely in terms of higher sales of residential property. The majority of respondents indicated that residential properties were priced correctly (see Chart 2.15). These developments are supported by the number of permits issued by the Planning Authority (formerly known as Malta Environment and Planning Authority), where the number of approved planning permits, in terms of accommodation units, increased by 34.4% during 2015, predominantly relating to apartments, following a decline since the onset of the crisis.<sup>8</sup> Positive developments were also reported with regard to commercial property. On balance, the sales volume of offices increased although remaining stable for warehouses and showrooms. Price perceptions have also improved as a larger proportion of respondents are of the opinion that commercial property is correctly-priced.



The recovery in the property market was also mirrored in price movements. The house price index compiled by the NSO illustrated an increase in real house prices for the second consecutive year, growing by 2.0% in 2015 compared with 2.6% in the previous year (see Chart 2.16). In nominal terms, house prices increased by 3.1% on an annual basis, at a slower rate than the growth in nominal GDP of 8.9%. The euro area average growth rate in residential real estate prices was of 1.6%, which is however characterised by heterogeneity with some Member States reporting a drop of



<sup>8</sup> Data comprise the actual number of units (e.g. a block of apartments may consist of several units).

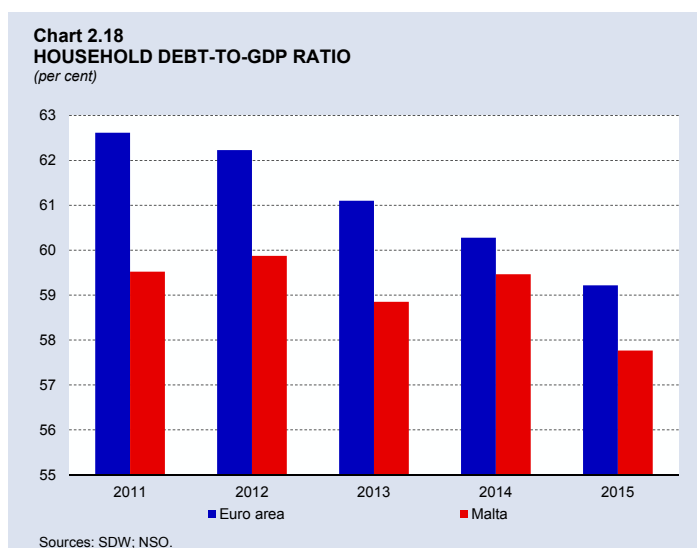
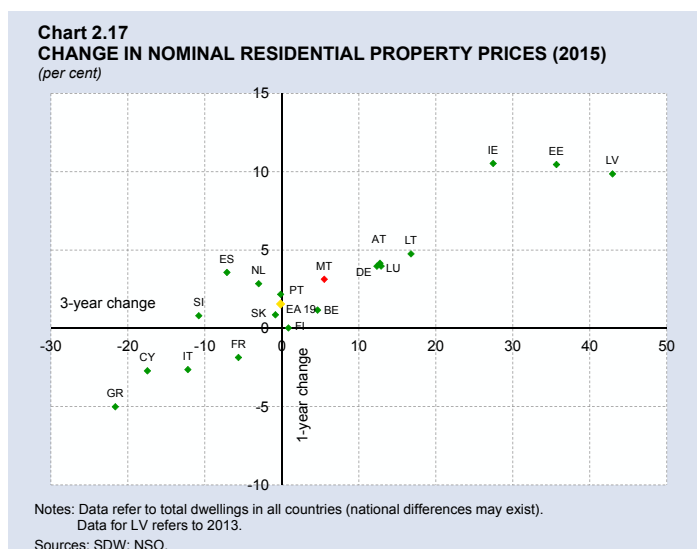
up to 5% in residential real estate prices (see Chart 2.17).

The GVA of manufacturing improved, contributing marginally to nominal GDP growth, on the back of an increase of about 1% in gross operating surplus. This growth was registered in spite of stronger competitive pressures and the impact of deteriorating economic conditions in emerging markets, given that most manufacturing companies in Malta are export-oriented, trade with non-EU countries and account for a sizeable share of exports. The depreciation of the euro and better productivity in the domestic economy improved the competitiveness of resident manufacturing companies. This was backed by a recovery in industrial production which during 2015 went up by 5.8% following a fall in the previous year.<sup>9</sup>

GVA in the wholesale and retail sector advanced by 8.8% in 2015, with gross operating surplus expanding by 13.5%. Higher consumer confidence, translating into strong growth in private consumption, has benefited operators in this sector. Short-term services indicators published by the NSO also show that turnover in services increased on an annual basis in the first three quarters of 2015.<sup>10</sup> Similarly, the accommodation sector sustained its strong performance on the back of another successful year for the tourism industry as the number of inbound tourists and total expenditure increased.<sup>11</sup> These positive results were confirmed by a 9.0% and 15.3% annual increase in GVA and gross operating surplus, respectively, for the tourism industry.

### Household sector

The level of household debt continued to increase during 2015, though at a slower rate than GDP. Consequently, the ratio of household debt-to-GDP dropped to 57.8% from 59.5% in 2014, remaining below the euro area average (see Chart 2.18). The rise in debt partly reflected the higher take-up of mortgages, as first-time buyers brought forward purchases to benefit from the Government's time-bound tax incentive on first-time property purchases. This may also have contributed to increased property prices in response to the stronger than usual demand. Nevertheless, the median house price-to-income ratio remains



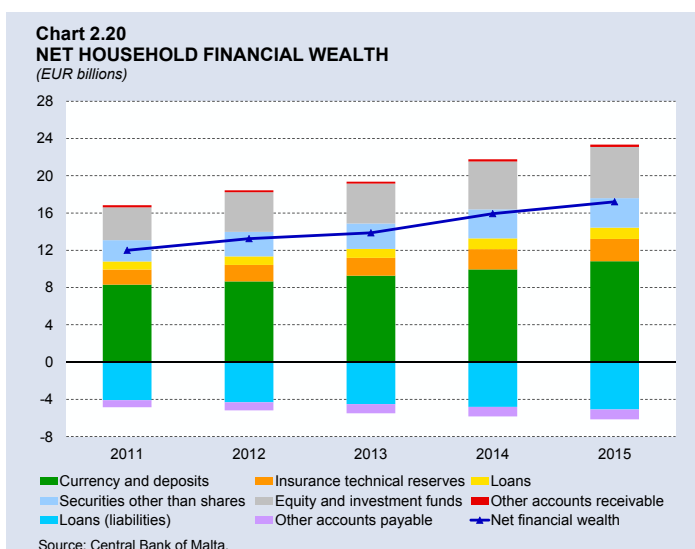
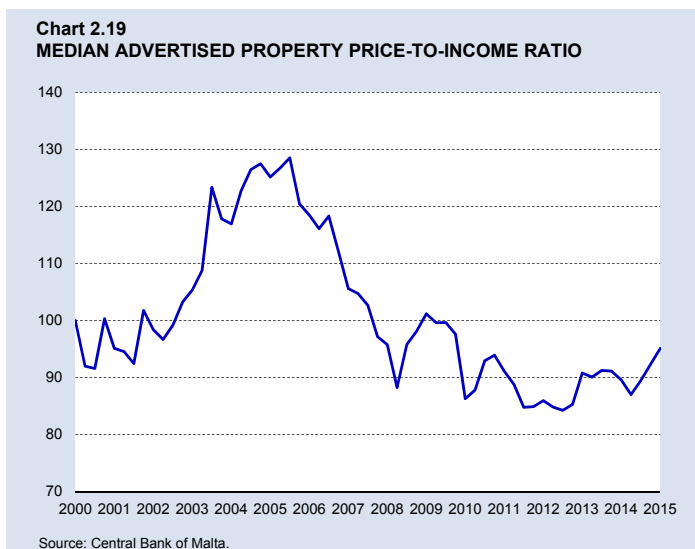
<sup>9</sup> Due to differing methodology, movements in GVA of the manufacturing sector as per NACE classification may not be in line with industrial production.

<sup>10</sup> NSO Release 18/2016.

<sup>11</sup> NSO Release 17/2016.

well below the levels experienced when the housing market was booming in 2005/2006 as shown in Chart 2.19, and is even below the average in the period preceding the house price boom in the run-up to EU membership. Indeed, there appears to be no significant upward pressure on housing affordability.<sup>12</sup>

Creditworthiness of the household sector improved as net financial wealth expanded by 8.0% (see Chart 2.20). The expansion in household financial assets emanated from all components of their balance sheet, although the biggest contributors were deposits and currency, and shares and other equity. Deposits have historically been the main component of household financial wealth, with a share of about 46% by end 2015. Equity and investment funds are the second most important assets held by households, rising by about 7% during the year and amounting to about a quarter in total household financial wealth. Furthermore, the increase in such holdings by households may have also fuelled the trading value of equity on the MSE, partly explaining the surge in the MSE index observed during 2015.



### Outlook

Projections by the Central Bank of Malta show that the Maltese economy will continue to grow robustly in 2016 and 2017. Labour market conditions are also expected to remain tight, with strong employment growth and low unemployment rates. Efforts to further consolidate public finances are expected to continue on the back of further robust economic growth. These developments are expected to strengthen further corporate and household balance sheets, thus contributing to enhance financial stability. This, in turn, should provide the necessary backdrop for financial institutions, particularly banks, to further improve asset quality on their balance sheets and be in a stronger position to comply with regulations aimed at enhancing capital buffers that make banks more resilient to economic and financial shocks.

<sup>12</sup> Price-to-income ratio is calculated as median house price based on advertised property prices, to disposable income which is estimated by the Central Bank of Malta.



### 3. THE BANKING SECTOR

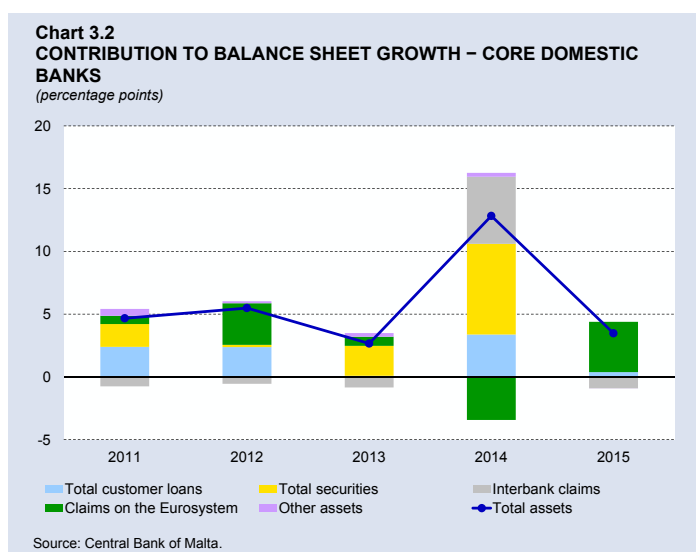
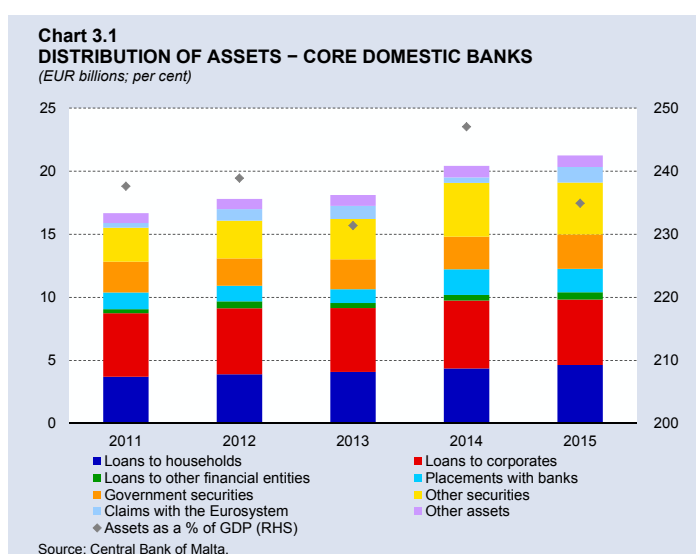
Soundness and resilience of the banking sector in Malta has been a key ingredient in achieving robust economic growth. A stable economy and a sound and efficient banking sector are mutually reinforcing and a prerequisite for financial stability. During 2015, the banking sector remained resilient characterised by sustained profitability levels, adequate capital buffers and ample liquidity levels. The main risk drivers, particularly those related to the core domestic banks, remained those associated with credit, on the back of weak credit growth and a stock of legacy non-performing loans (NPL). Financial stability risks emanating from the non-core domestic and international banks remained rather contained. On balance, risks for the banking sector stood broadly stable compared to the previous year. The outlook for the banking sector is positive, spurred by favourable economic conditions and the implementation of macro-prudential policies during 2016, aimed at mitigating key risks to financial stability.

#### 3.1. Core domestic banks

The core domestic banks continued operating their traditional banking model of granting loans, mostly to domestic firms and households, and taking deposits mainly from residents.

In 2015, the assets of core domestic banks grew by 3.5%, a somewhat slower rate compared to the 12.8% reported in the previous year.<sup>1</sup> This increase however still contrasts with developments in the euro area, where total bank assets contracted by 1.2% during 2015.<sup>2</sup> By the end of the year, core domestic banks' total assets stood at €20.7 billion, equivalent to almost 235% of GDP, down from 247.0% a year earlier, as nominal GDP grew at a much faster pace than banks' assets (see Chart 3.1).

Loans remained the banks' main asset component on their balance sheets, growing by 0.8% during the period under review. Placements with the Central Bank of Malta and the Eurosystem, increased almost threefold throughout 2015 to €1.2 billion despite negative interest rates, reversing the drop reported in 2014, and adding 4.0 percentage points to growth in total assets (see Chart 3.2). This reflects ample liquidity but also their cautious



<sup>1</sup> This slower rate of growth was partly due to the setting up and transfer of part of the assets, to a foreign subsidiary by one bank. Should this transaction be excluded, it is estimated that total assets would have grown by around 6.7%.

<sup>2</sup> Source: ECB Statistical Data Warehouse.

approach in terms of credit standards and investment decisions, with banks opting to maintain their liquidity rather than invest in assets which do not meet their risk-return trade-off. Total securities, including equities, dropped by 0.1% to €6.8 billion, while interbank claims declined by 8.5% to €1.9 billion. The latter mainly resulted from lower placements with related credit institutions abroad.

The composition of the core domestic banks' balance sheet is mainly composed of domestically-issued assets, with foreign asset holdings accounting for just over a third of their balance sheet value. During the year the proportion of foreign asset holdings to total assets, dropped by 2.9 percentage points to 35.5%.

Foreign assets mainly comprise securities (including equities), equivalent to almost two-thirds of total foreign assets. Placements in the form of deposits with foreign counterparties accounted for almost another quarter, while loans to non-residents represented the remaining 11.2%.

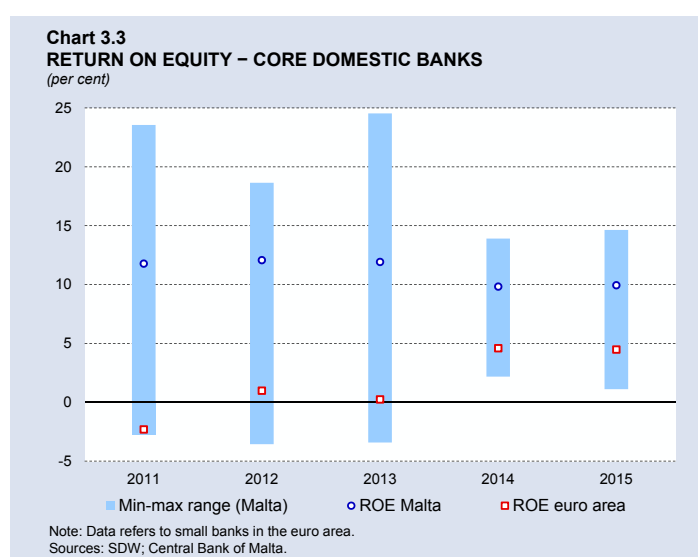
From a currency mix perspective, almost 80% of assets are euro-denominated. Foreign currency assets, specifically loans, placements and bonds, are mainly denominated in US dollar and Pound sterling, with the former accounting for around half, while the latter making up a third of total foreign currency assets. Other currencies include Australian dollar and Swedish krona.

The increase in total assets was mainly funded by deposits which rose by 11.0% accounting for 82.2% of total balance sheet value. Over 85% of deposits are euro-denominated, whereas foreign currency-denominated deposits were mainly composed of US dollar and Pound sterling deposits. Meanwhile, other sources of funding, mainly repos, Eurosystem funding and intra-group liabilities declined.

### 3.1.1 Profitability

In 2015, profits of the core domestic banks rebounded, following a drop reported in 2014. Pre-tax profits rose by 10.7% and by 9.8% after tax. The profitability indicators remained healthy with the return on equity (ROE) reaching 9.9% by end 2015, remaining broadly stable compared to the previous year (see Chart 3.3). Similarly, the return on assets (ROA) stood unchanged at 0.7% in 2015 (see Chart 3.4).<sup>3</sup> The dispersion in ROE among banks widened marginally but narrowed for the ROA. Meanwhile, the profitability ratios of core domestic banks remained well above those of small euro area banks, with their ROE and ROA standing at 4.5% and 0.3%, respectively in December 2015, in line with the figures reported in 2014.

Higher pre-tax profits were driven by improved net interest and non-interest income, which were partly offset by growth in non-interest expenses (see Table 3.1). The latter rose by 7.2% to €353.0 million, mainly driven by higher staff costs and other operating expenses. Just over 60% of this increase was attributable to a one-off expense related to an early retirement scheme exercise by a major bank in 2015. In the absence of such an exceptional exercise, the increase in non-interest expenses would have been 2.7%. Net impairment charges contracted by 27.8% owing to lower collective provisions and bad debt charges, which were



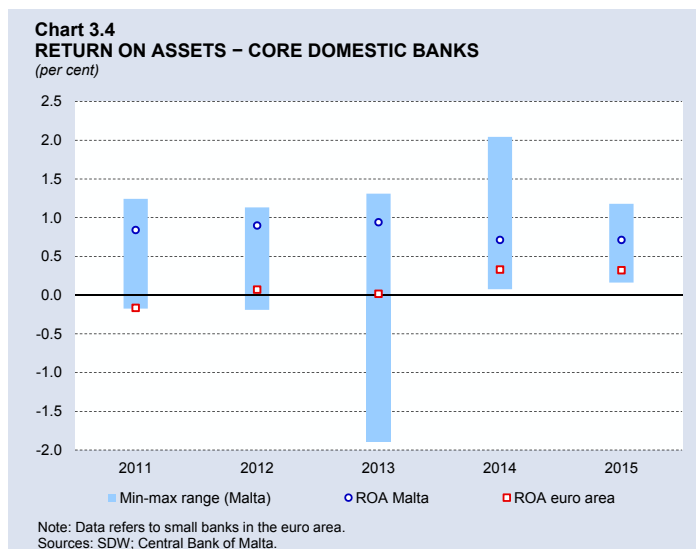
<sup>3</sup> The ROE and ROA are calculated on the basis of after-tax profits and based on a 12-month average of equity and assets, respectively.

partly offset by higher specific provision charges. Higher non-interest expenses resulted in weaker efficiency which pushed the cost-to-income ratio to 52.3% as at end-2015 from 49.6% in 2014.<sup>4</sup> However, the cost-to-income ratio of core domestic banks stood below the EU average ratio, which as at December 2015 exceeded 60%. Given that this ratio was pushed up because of the one-off factor highlighted earlier, efficiency is expected to improve.<sup>5</sup>

Net interest income remained the main contributor to profits, amounting to almost two thirds of gross income and rose by 7.9% in 2015.

This increase was supported by financial intermediation activities, with the related net interest income rising by 28.8% during the period reviewed. This reflected both a rise in interest income and a drop in interest expense. This improvement was supported by a widening in the interest margin between loans and deposits, given that the average interest rates on deposits fell at a faster pace than those on loans. Meanwhile, net interest income from securities and other interest-bearing assets declined by 32.0%, on the back of a low interest rate environment.

Non-interest income went up by 9.7% to almost €205 million. This improvement was mainly attributed to trading profits which surged rapidly, albeit from a small base. Non-trading profits, fees and commission



**Table 3.1**  
**MAIN COMPONENTS OF THE PROFIT AND LOSS ACCOUNT – CORE DOMESTIC BANKS**

EUR millions

	2011	2012	2013	2014	2015
<b>Total net interest income</b>	356,287	353,694	345,829	344,570	371,786
Net interest income on intermediation	215,916	236,890	239,096	225,941	291,061
Other net interest income	140,372	116,804	106,733	118,629	80,725
<b>Non-interest income</b>	137,003	218,226	198,112	186,812	204,960
Trading profits <sup>(1)</sup>	(28,090)	20,139	18,130	5,856	20,384
Other non-interest income	165,093	198,088	179,982	180,956	184,576
<b>Non-interest expense</b>	(288,546)	(340,563)	(292,698)	(329,339)	(353,032)
Of which net impairment charges	(34,725)	(91,512)	(36,478)	(57,159)	(41,262)
<b>Net profit before tax</b>	204,744	231,357	251,243	202,043	223,714
<b>Net profit after tax</b>	134,715	151,041	163,614	133,984	147,146

<sup>(1)</sup> Trading profits consist of fair valuation movements and gains or losses on traded securities.

<sup>4</sup> The cost-to-income ratio is defined as operating expenses (net of amortisation but including intangible assets other than goodwill) to gross income (net interest income and non-interest income). Impairment charges are excluded from the computation of this ratio.

<sup>5</sup> ECB Statistical Data Warehouse.

income, and ‘other’ non-interest income also contributed to this increase. Fees and commissions, which is a prime source of income for the core domestic banks, accounting for 17.3% of gross income, rose to almost €100 million (6.6%) during the period under review. Despite these developments, the proportion of the non-interest income in gross income remained largely unchanged since 2014, at around 35%, highlighting the banks’ extensive reliance on financial intermediation.

Notwithstanding the reported increase in profits, banks could continue to face pressures on profitability arising from a possible deterioration in the external macroeconomic environment and a persistently low interest rate environment. Looking forward, from a domestic perspective, the lower bound on funding costs stemming from the banks’ extensive reliance on customer deposits would add further pressure on profits. However, such downside risks are compensated by upside risks arising from the favourable local economic climate, which should in turn foster a gradual recovery in credit growth in the medium term.

### 3.1.2 Asset quality

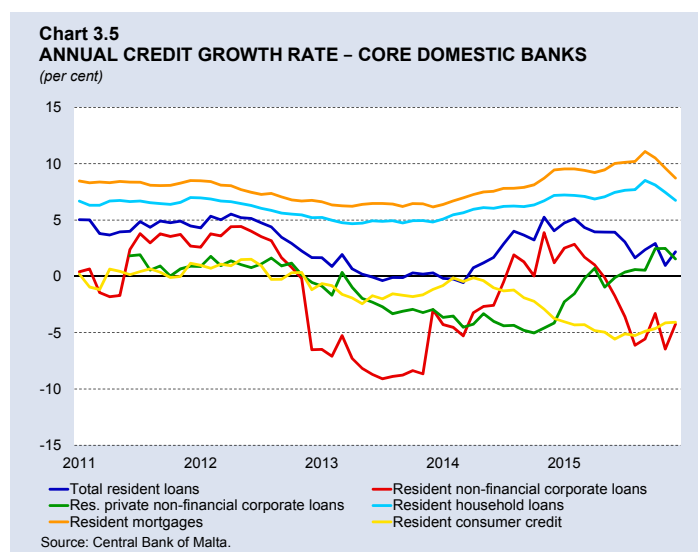
#### *The loan portfolio*

The analysis of the loan portfolio forms a pivotal role in the assessment of asset quality of the core domestic banks. Indeed, given the generally traditional business models adopted by these banks, loans account for the largest asset component equivalent to 47.5% of balance sheet value at the end of 2015. This share, however, was 1.3 percentage points lower when compared to 2014 given the slower growth in loans relative to total assets.

In 2015, the loan portfolio expanded by just 0.8% to €9.8 billion, much lower than the 6.5% growth reported a year earlier. Indeed, the 2.3% increase reported in the *Interim Financial Stability Report* for the first half of the year shrunk as a result of a contraction in total loans in the second half of 2015. This, however, reflected a decrease in non-resident lending of 12.1% in 2015, which mainly resulted from the transfer of a part of the loan book of one bank to its foreign subsidiary, established in that year. This decline was more than offset by higher resident lending, which grew by 2.2% and accounted for 91.6% of total lending by core domestic banks (see Chart 3.5).

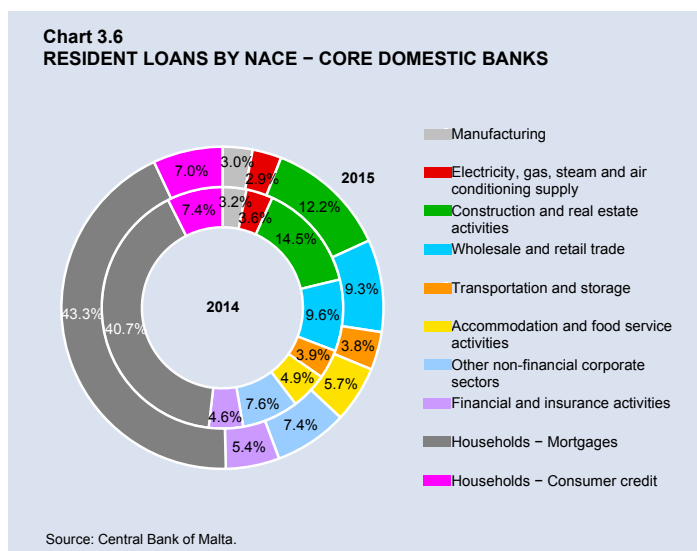
Resident lending was mainly driven by mortgages, with an annual growth rate of 8.7%, albeit decelerating somewhat towards the end of the year from the peak reported in the third quarter of 2015. As a result, mortgage loans remained the single largest credit component representing 43.3% of total resident loans (see Chart 3.6). Meanwhile, household consumer credit continued to contract with outstanding loans falling by 4.1% over 2014. These trends were also corroborated by respondents of the Bank Lending Survey (see Box 1).

Credit to resident non-financial corporates (NFC) contracted by 4.2% in 2015, reversing the marginal increase reported a year earlier.<sup>6</sup> Lending to NFCs contracted despite the historically low interest rates, with the weighted average lending rate dropping further by



<sup>6</sup> The increase reported in 2014 however mainly reflected an increase in public energy related loans, with private non-financial corporate (NFC) loans decreasing throughout 2014.

0.2 percentage point, ending the year at 4.8%. The drop in credit to NFCs was mainly driven by further reductions in loans granted to the construction and real estate sector, which contracted by 13.6%. Indeed, despite the improved conditions in the property market and a higher gross operating surplus of this sector, banks remained cautious in their lending practices and continued to reduce their exposure to this sector to curtail concentration risk. As a result, the proportion of lending to the resident construction and real estate sectors in total resident loans declined further to 12.2%, considerably lower than the peak of 20.7% reported in 2007. Similarly, lending to the energy-related sector also contracted significantly, down by 16.8%. The fall in lending to NFCs was partly offset by higher loans granted to the accommodation and food services activities sector, which increased by 17.2%, mainly stimulated by the policy to extend height limits to hotels to expand bed-capacity, which contributed to higher investment demand by this sector. Similarly, banks reported higher lending to the financial and insurance activities up by 20.2%, mainly in trusts, and other financial service activities.

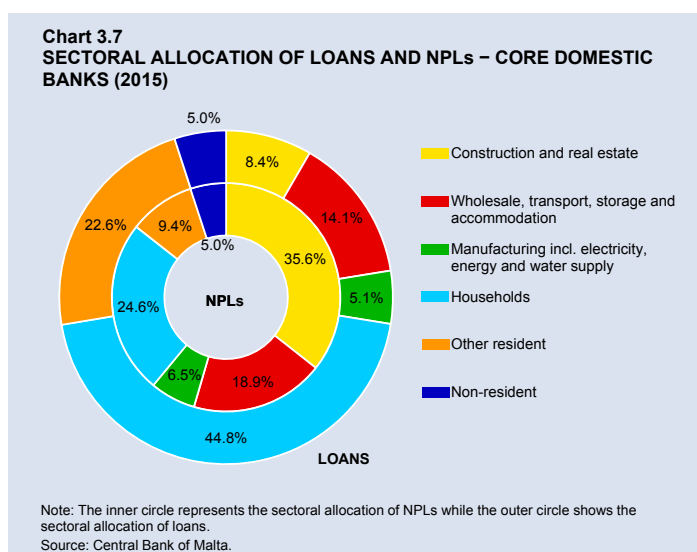


However, the reduction in lending to NFCs was largely impacted by public sector credit. Indeed, credit channelled to private resident NFCs edged up by 1.5%. In total, the decline in the energy-related infrastructural projects by the public sector practically offset the increase in resident private sector corporate credit.

The lower share of construction and real estate sector in total lending led to further diversification in the corporate lending portfolio, thus reducing further concentration risk. However, the sustained growth in mortgage lending has increased the share of this segment in the banks' total lending portfolio. Although mortgage lending is the largest category of lending, it is spread across a large number of households.

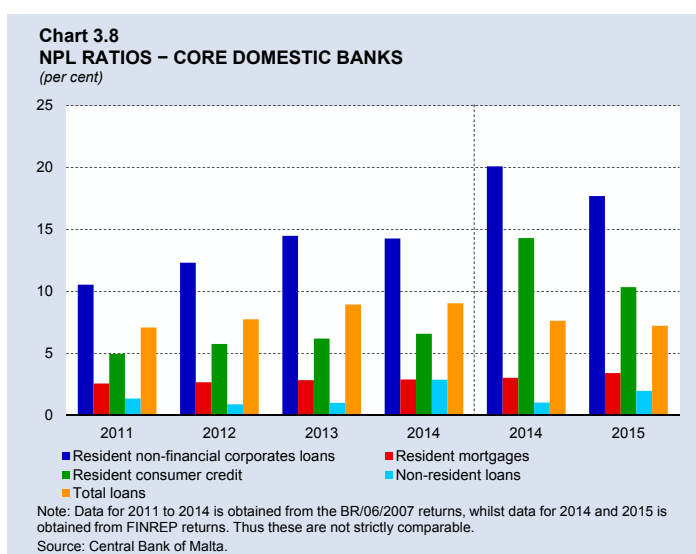
### Non-performing loans

During 2015 the stock of NPLs increased marginally by about 0.5%. This growth which was mainly reported during the last quarter of the year was driven by non-resident loans. The share of non-resident NPLs to total NPLs, while remaining contained, increased from 2.8% in December 2014 to 5.0% a year later (see Chart 3.7). These developments were however mainly bank-specific and not reported across all banks. Such non-resident loans mostly pertained to



human health services and social work activities, the accommodation and food service activities, and the professional, scientific and technical activities sectors.

On a positive note, resident NPLs contracted by 1.5% in 2015, underpinned by lower NPLs pertaining to NFCs, down by 4.1%. This resulted predominantly from NPLs relating to the construction and real estate sectors, which contracted by about 12% in 2015. This decline was partly offset by higher NPLs emanating from manufacturing, wholesale and retail and 'other services' sectors. At the same time, NPLs for resident households rose by 1.5%, driven by an increase in non-performing mortgages, while NPLs relating to consumer credit declined.



As at end 2015, the overall NPL ratio stood at 7.2%, a drop of about 0.4 percentage point compared to 2014 (see Chart 3.8).<sup>7</sup>

Some improvement was also reported in the NPL ratio for resident loans, which narrowed from 9.7% in 2014 to 8.6% as at end 2015, driven by lower resident NPLs coupled with higher lending to residents.<sup>8</sup> The drop in resident NPL ratio emanated from the corporate sector, with the corporate NPL ratio standing at 17.7% as at end 2015, down by around 2.4 percentage points compared to end 2014. With regard to households, lending rose at a much faster pace than related NPLs, with the NPL ratio dropping by 0.2 percentage point to about 4.7%. Throughout 2015 the NPL ratio for mortgages increased by around 0.4 percentage point but remained contained at 3.4%. Meanwhile, as at December 2015, the NPL ratio for the remaining household credit reached 10.3%, around 4 percentage points lower than in 2014.

### Loan loss provisions

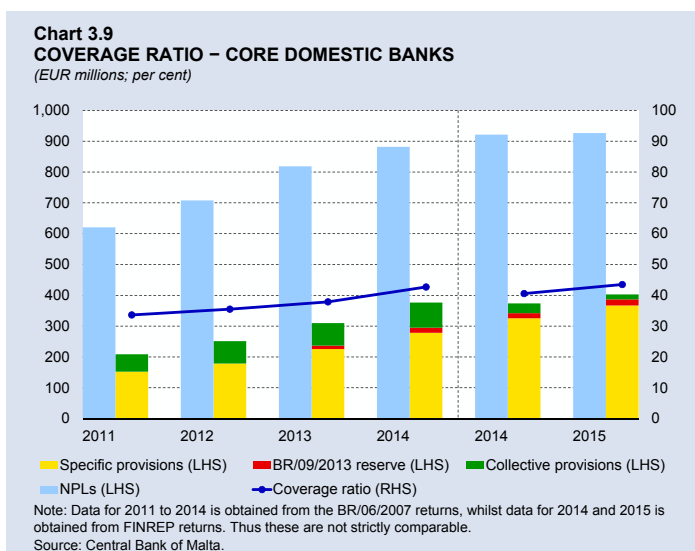
Throughout 2015, the core domestic banks increased their total loan loss provisions by 7.3%. This reflected higher specific provisions, up by almost 13%, which were partly offset by a reduction in collective provisions, down by about 50%. These developments were mainly bank-specific and not reported across all banks. Higher specific provisions pushed up the specific coverage ratio by 4.3 percentage points to 39.6%. However, the improvement in the total coverage ratio was more contained, up by about 2.6 percentage points to 41.4%. The three-year implementation phase for the full provision of "Reserve for General Banking Risks" as per the revised Banking Rule 09/2013, ended in 2015. The total amount of reserves set aside by core domestic banks amounted to around €20 million as at end 2015. After taking into account these non-distributable reserves, the coverage ratio would strengthen further by another 2.1 percentage points to 43.5% (see Chart 3.9).

Apart from loan loss provisions, the core domestic banks also rely on collateral, to which conservative haircuts in the region of 30% are applied, as another credit risk mitigating factor, which covers over half of their NPLs.

<sup>7</sup> The ratio is based on 'loan and advances' as reported in FINREP returns, which in 2015 increased by 6.2%. "Loans and advances" are defined as debt instruments that are not securities; this item includes "loans" in accordance with the ECB BSI Regulation as well as advances that cannot be classified as "loans" under the ECB BSI Regulation. In this regard, the NPL ratio quoted for 2015 cannot be compared to the NPL ratios reported in previous editions of the *Financial Stability Report* due to changes in the source of computation.

<sup>8</sup> This NPL ratio is based on loan and advances figures as reported in FINREP.

Furthermore, core domestic banks apply their own borrower-based policies to safeguard the creditworthiness of their clients, in a bid to reduce the risk of possible losses. Such policies vary across banks and are not homogenous. However, for the fourth quarter of 2015, the average loan-to-value (LTV) ratio stood at 75.4% for residential real estate. First-time buyers reported higher LTV ratios, averaging at about 77%, while the LTV of mortgages granted to non-first buyers hovered around 74%. The LTV ratio is more contained for residential buy-to-let loans, averaging at around 56%. Similarly the LTV ratio for all commercial real estate loans stood at 63.0%.

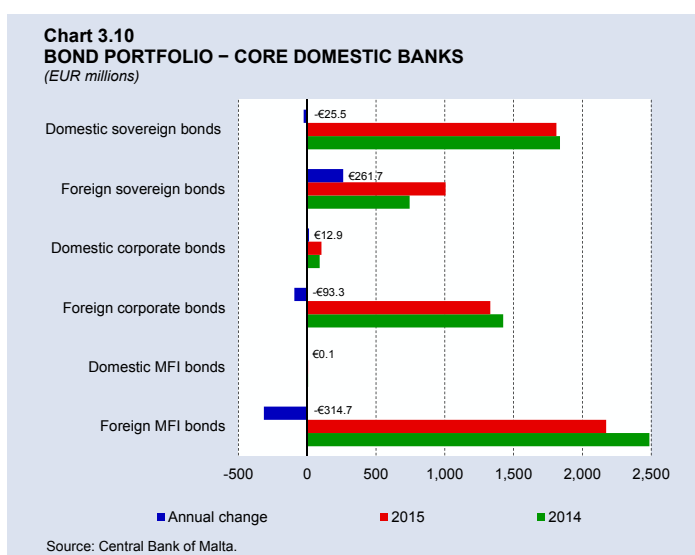


### The securities portfolio

The securities portfolio accounted for a third of the core domestic banks' total assets, amounting to €6.8 billion. This is predominantly in the form of bonds, with equities accounting for only 6% of total securities holdings (or 2% of total assets). While holdings in equity remained very low, the core domestic banks increased their holdings by more than half in 2015, with higher equity holdings issued by foreign financial institutions, but around 54% of the increase mainly reflecting holdings in a foreign subsidiary by one of the banks.

The bond portfolio contracted by 2.4% in 2015 to €6.4 billion, with the marginal increase reported in the *Interim Financial Stability Report 2015* being more than offset in the second half of 2015.<sup>9</sup> Despite the limited changes in the overall composition of securities holdings, significant developments were observed among individual banks. The increase in bond holdings by two banks was offset by one bank which shed off more than half of its bond portfolio. As a result, holdings of bonds issued by foreign monetary financial institutions and foreign corporates dropped by 12.7% and 6.6%, respectively (see Chart 3.10). By contrast, foreign sovereign holdings increased by more than 35% to exceed €1 billion.

Holdings of domestic sovereign paper dropped by 1.4% to reach €1.8 billion. This drop, combined with the increase in asset holdings, resulted in a fall in the proportion of domestic Government paper in total assets of 0.4 percentage point to 8.8%. Nevertheless, as a percentage of total bond holdings, the share of domestic sovereign paper increased by 0.3 percentage point to 28.2%, given the steeper drop in foreign bond holdings.



<sup>9</sup> Treasury bill holdings are included together with bonds.

As observed in previous years, core domestic banks tend to hold Malta Government Stocks (MGS) with a short-to-medium term maturity. Indeed, almost 95% of the holdings of MGS mature by 2022. While such short-to-medium term bonds account for the largest share of outstanding MGS, throughout 2015 the Maltese Treasury continued to tap the low yield curve by further lengthening its maturity structure up to 2040. This reflects the persistent decline in the funding costs for newly-issued MGS, as evidenced by the ten-year MGS yield, which fell by 0.7 percentage point to 1.29%. Despite the drop in the interest rates, the bid-to-cover ratio remained healthy at 2.9, reflecting strong demand for such instruments, especially given strong liquidity in the domestic market and limited issuance of bonds on the domestic market. Most of the issued MGS were taken up by the retail sector, with the Treasury issuing floating rate notes specifically for the wholesale sector, particularly banks.

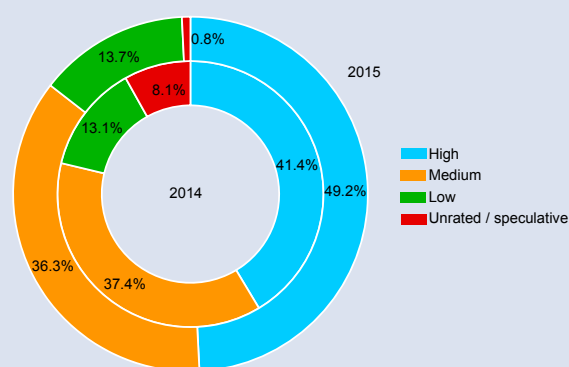
The share of bonds booked as held-to-maturity (HTM) increased from 40.2% to 53.0%. On the other hand the share of marked-to-market bonds, mainly booked as available-for-sale, contracted to 47.0% of total bond holdings. This structure indicates that a larger proportion of bonds are less susceptible to market variations, hence limiting possible implications on profitability in the event of volatility in bond prices.

### Securities asset quality

The bond portfolio of core domestic banks is regarded to be of high quality and none of such holdings were classified as non-performing. Such high quality is also reflected in the banks' investment strategies which prefer to invest in high-rated bonds. Indeed, excluding domestic sovereign paper, almost half of the bonds held by the core domestic banks carry a AA- or higher rating, whereas another 36.3% are rated between A- and A+. The share of such bonds increased compared to a year earlier (see Chart 3.11). Only 13.7% are rated between BBB- and BBB+ with the share of unrated or speculative bonds limited to just 0.8%, dropping significantly from 8.1% in 2014.

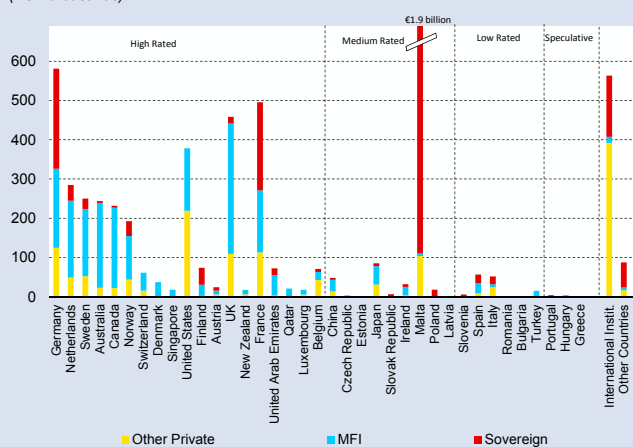
The quality of bond holdings is also assessed by country of origin. Almost 30% of bond holdings are issued domestically, with the vast majority in the form of sovereign bonds (see Chart 3.12). In 2015, foreign bond holdings amounted to €4.5 billion, equivalent to 21.8% of total assets. More than three-fourths of such holdings were issued in countries with a credit rating above AA-. Most notably these originate from Germany, France, the United Kingdom and the United States, followed by the Netherlands, Sweden,

**Chart 3.11**  
FOREIGN BOND HOLDINGS BY RATING – CORE DOMESTIC BANKS (2015)



Source: Central Bank of Malta.

**Chart 3.12**  
BOND ASSET HOLDINGS – CORE DOMESTIC BANKS (2015)  
(EUR thousands)



Source: Central Bank of Malta.



Australia, Canada and Norway. Another 4.3% originate from countries with medium credit ratings, while less than 3% of foreign bond holdings are low-rated.<sup>10</sup> Foreign-issued bonds that originate from countries with a rating lower than BBB- amount to just 0.1% of foreign bond holdings. Meanwhile 12.5% of foreign bond holdings originate from European and international institutions.

Given the good quality securities, the non-performing exposure (NPE) ratio, which includes loans and securities, for the core domestic banks is comparably lower than the NPL ratio standing at about 4.7% as at end 2015.

### 3.1.3 Funding and liquidity

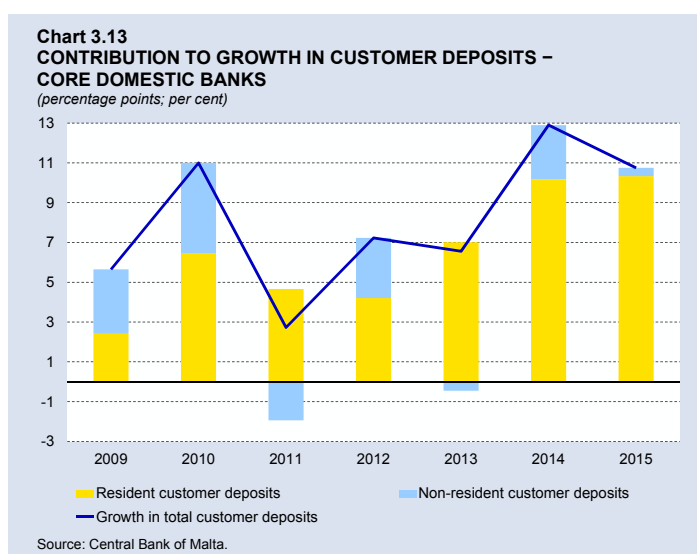
The funding and liquidity position of the core domestic banks remained stable during the period under review. Despite the low interest rate environment, the flow of customer deposits remained strong and continued to finance the bulk of the core domestic banks' assets. In this regard, the stable funding sources in the form of customer deposits kept the level of liquidity risks contained. Wholesale and Eurosystem funding remained a minor source of funds for core domestic banks, which continued to rely mainly on retail customers.

#### Customer deposits

The customer deposit base of core domestic banks expanded further, financing nearly 82% of their balance sheet value. The rate of growth of such deposits remained sustained, although it decelerated slightly in 2015, standing at 10.8% compared with 12.9% a year earlier (see Chart 3.13). The slowdown in the rate of growth in deposits, which nevertheless still remains strong, reflects the loss in momentum in the growth of non-resident deposits which rose by 2.4% in 2015, compared to 16.7% recorded a year earlier. As in previous years, non-resident customer deposits were volatile on account of developments in corporate deposits. Nevertheless, given the ample liquidity of core domestic banks and considering that non-resident customer deposits only make up 12.8% of total liabilities, such volatility does not pose any funding risks for core domestic banks.

Growth in resident customer deposits edged up by 0.3 percentage point to 12.4% in 2015. The rise in customer deposits stemmed predominantly from resident household deposits which accelerated further to almost 10%, over 2 percentage points higher than in the preceding year. Banks also reported higher deposits by corporates and 'other' residents, although to a lower extent than households' deposits.<sup>11</sup>

As at end 2015, resident household deposits accounted for 56.7% of customer deposits and nearly half of total liabilities (see Chart 3.14). Growth in resident corporate deposits decelerated somewhat albeit remaining strong at 15.6% in 2015 compared to 16.4% a year earlier. 'Other' resident deposits rose by 22.4%, although these funds constitute only 10.6% of total customer deposits, or just 8.7% of total liabilities.



<sup>10</sup> High rated are those countries which are rated AA- or above. Medium rated countries are rated between A- and A+. Low rated countries are rated between BBB- and BBB+ . Speculative ratings have a rating lower than BBB-.

<sup>11</sup> Other resident customer deposits include captive financial institutions and money lenders and public sector NFCs.

The currency composition of non-resident deposits remained relatively unchanged since 2014, with around 60% of non-resident deposits denominated in euro, followed by the US dollar. The increase in non-resident deposits was mainly due to the euro-denominated element. Similarly, the acceleration in resident deposits resulted from euro-denominated deposits, which account for the majority of resident deposits.

The preference of customers to hold more liquid deposits intensified, with the share of current and savings deposits accounting for nearly 70% of total deposits, which

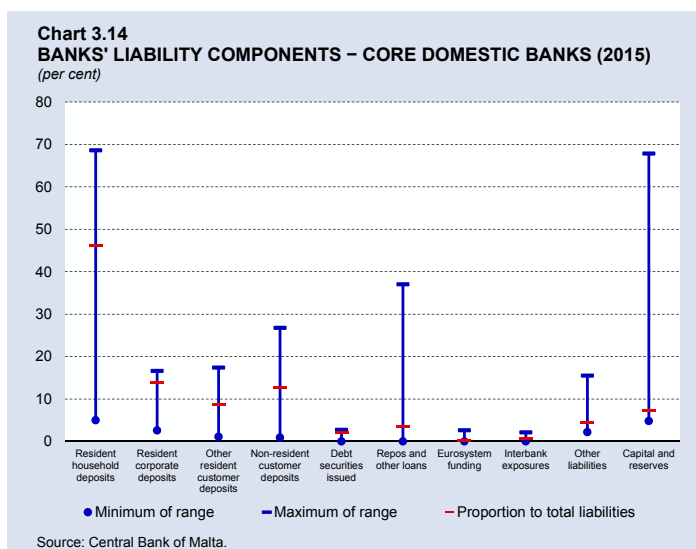
was 6.1 percentage points higher than in 2014. Conversely, the proportion of term deposits with a maturity of less than one year contracted further from 28.4% in 2014 to 21.3% by end 2015. This drop resulted principally from a lower share of deposits with a maturity of less than three months. Meanwhile, core domestic banks reported a marginally higher share of fixed-term deposits with longer maturities (more than one year), although their share in total deposits remained low at 9.0%, reflecting the limited preference of depositors for long-term deposits. This increase was mainly reflected in term deposits with a maturity bucket of one to two years.

The weighted average interest rate paid on euro-denominated resident deposits continued to follow a downward trend, dropping by 0.36 percentage point to 0.61%. Likewise, the weighted average interest rate on foreign currency resident deposits fell by 0.07 percentage point to 0.49% as at end-2015. Notwithstanding the very low interest rates offered, the core domestic banks continued to benefit from strong deposit flows, with the customer loan-to-deposit ratio dropping further to 58.2% by end 2015; well below the euro area average of around 101% in December 2015.

### *Eurosystem and wholesale funding*

In line with previous years, core domestic banks made limited use of Eurosystem funding, accounting for just 0.2% of total liabilities as at end 2015, down from 1.4% a year earlier. The core domestic banks have pledged with the Central Bank of Malta only 12.3% of their eligible securities for monetary policy operations purposes. This mostly reflected the participation by some core domestic banks in the targeted longer-term refinancing operations (TLTROs) conducted by the European Central Bank (ECB). Indeed, given that such non-standard measure of financing was primarily introduced to alleviate liquidity pressures, most core domestic banks did not seek this type of funding in view of their abundant liquidity, although such participation contributes to lower their average cost of funding.

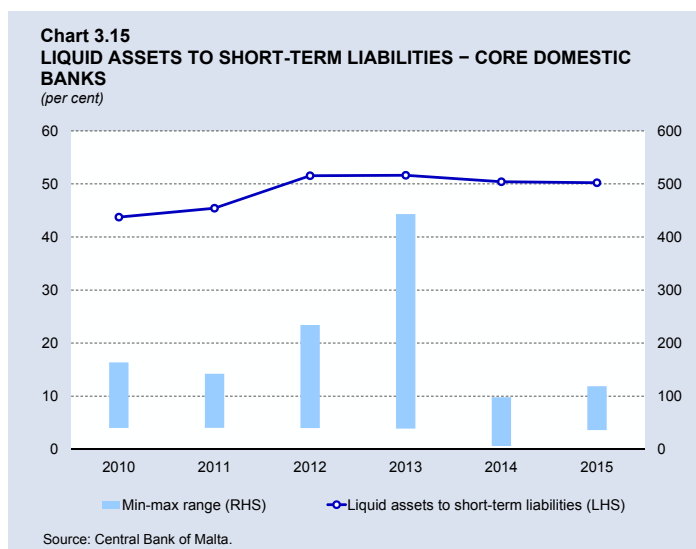
Although interbank funding (excluding repos) increased by 22.5%, it continued to represent just 0.8% of total assets. A further 2.1% of total assets were financed through debt securities issued by banks. During the year such kind of funding expanded by 18.3%, including also the issuance of subordinated debt securities, with the objective to meet the requirements for minimum requirement for own funds and eligible liabilities (MREL), as required by the Bank Recovery and Resolution Directive. Meanwhile, repos and other loans declined significantly, down by 38.4%, accounting for 3.6% of total balance sheet value, whereas other liabilities, which mainly include specific intra-group transactions, fell by almost 35% on account of restructuring by a bank.



## Liquidity

Throughout 2015, the banks' liquidity position, expressed as liquid asset-to-short-term liabilities remained robust with a liquidity ratio of 50.2% (see Chart 3.15).<sup>12</sup> The ratio among core domestic banks varied from a low of 35.9% to a high of 118.6%. The banks' strong liquidity position is supported by marketable debt securities, which accounted for about three-fifths of eligible liquid assets, down by 5.4 percentage points from the previous year. The remainder is almost equally divided between cash and balances held with the Central Bank of Malta, and balances held with other credit institutions,

which are also recognised as high-quality eligible liquid assets. Despite the cuts in the main refinancing rate by the ECB, the cash and balances held with the Central Bank of Malta increased threefold to account for about one-fifth of liquid assets, reflecting the abundant liquidity of banks.



The Capital Requirements Directive IV (CRD IV) and the Capital Requirements Regulation (CRR) framework govern the liquidity conditions of banks via two liquidity prudential standards: the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR). The minimum requirement of the LCR was introduced in October 2015 at 60% and will be gradually fully phased in to 100% by January 2018.<sup>13</sup> The LCR measures to what extent banks have sufficient liquid assets to meet the notional amount of cash outflows occurring over a 30-day stress scenario. In view of these new regulatory changes, the core domestic banks have restructured their balance sheets over the past years to meet the newly-established thresholds. Accordingly, as at December 2015, the LCR stood at 167.6%, up from 159.1% since its inception in October 2015, indicating an improved and healthy liquidity position. The LCR varies across the core domestic banks from a low of 113.1% to a high of 593.8%, so that core domestic banks already comply fully with this requirement.

As regards the NSFR requirement, this is projected to come into effect in January 2018 and it is still to be clearly defined in EU regulations.<sup>14</sup> This ratio aims to encourage banks to hold more stable and longer-term funding sources against their less liquid assets, thereby lowering maturity transformation risk.

### 3.1.4 Capital and leverage<sup>15</sup>

As at December 2015, the capital position of the core domestic banks remained strong, with the Total Capital Ratio improving by 0.5 percentage point to 15.0% – well above the 8% regulatory threshold. This reflected an increase of 4.6% or €64.5 million in total own funds, mainly owing to higher retained earnings

<sup>12</sup> Prior to the enactment of the CRR/CRD IV, the liquidity ratio was governed by Banking Rule 05/2007: Liquidity Requirements of Credit Institutions authorised under the Banking Act 1994, which set a minimum threshold of 30%.

<sup>13</sup> The LCR ratio will be progressively implemented in accordance with the CRR as follows: 60% from 1 October 2015, 70% from 1 January 2016, 80% from 1 January 2017, and 100% from 1 January 2018. The LCR implementation will be reached in 2018 – one year earlier than required under Basel requirements.

<sup>14</sup> By end 2016 the Commission is expected to submit a legislative proposal to the European Parliament and the Council.

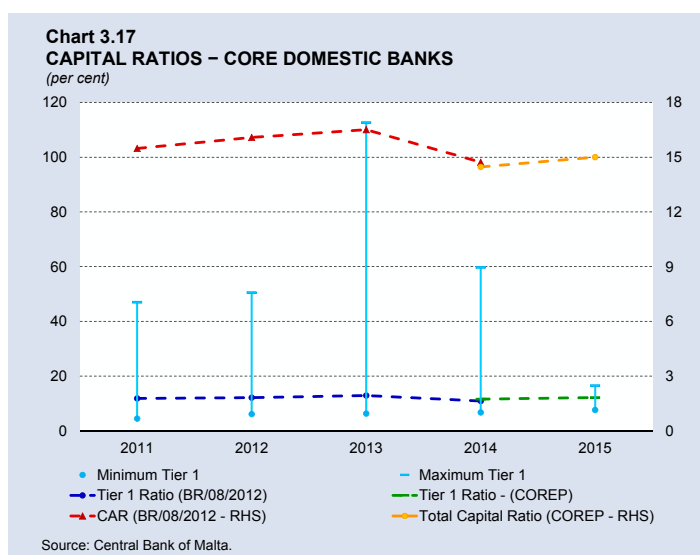
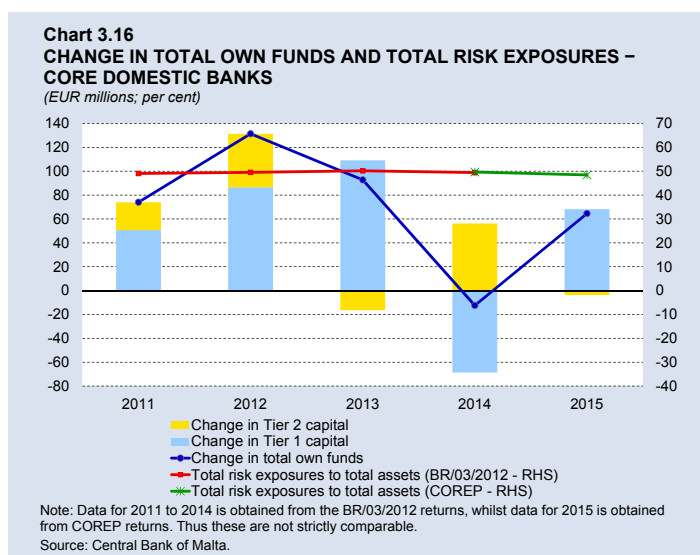
<sup>15</sup> Annual developments for 2015 are based on COREP returns, as opposed to previous analysis which was extracted from Banking Rules, including Banking Rule 03/2012. The ratios computed on the two data sources are thus not strictly comparable.

(see Chart 3.16).<sup>16</sup> Meanwhile, total risk exposures rose by 0.9% (or €87.0 million), primarily due to a higher risk-weighted exposure relating to operational risk.

The core domestic banks' risk profile, measured as total risk exposures to total assets, dropped by 1.2 percentage points, standing at 48.4% in December 2015. The decline stemmed from a faster growth in total assets (3.5%) than risk-weighted exposures, indicating that banks did not engage in a search for higher yield, as they opted to invest in assets carrying lower risk weights.

The expansion in total own funds emanated from higher Tier 1 capital, which pushed the Tier 1 capital ratio to 12.2% from 11.6% in 2014, exceeding the minimum requirement of 6% (see Chart 3.17).<sup>17</sup> The majority of core domestic banks reported a higher Tier 1 capital ratio. Despite the issuance of subordinated capital which is classified as Tier 2 capital, this contracted by 1.3%, arising mainly from other transitional adjustments to Tier 2 capital. The core domestic banks continued to prepare for full implementation of the CRR/CRD IV framework, due by January 2019.

Based on the new regulatory framework, the leverage ratio (as per the transitional definition of Tier 1 capital – Month 3), stood at 5.0% in December 2015, up from 4.7% as at end 2014. All core domestic banks exceeded the minimum regulatory requirement of 3% (see Chart 3.18).<sup>18,19</sup> Considering a simpler definition of the leverage ratio, expressed as shareholder funds to total assets, the ratio would stand at 7.3% in



<sup>16</sup> In 2014, total own funds decreased due to the acquisition of Volksbank Malta Ltd from Mediterranean Bank plc in September 2014.  
<sup>17</sup> In 2014 and 2015, the core domestic banks did not hold any additional Tier 1 capital. As a result, the Common Equity Tier 1 (CET1) ratio also stood at 12.2%, well above the 4.5% regulatory threshold.  
<sup>18</sup> In 2014 and 2015, the leverage ratio using a transitional definition of Tier 1 capital was equal to the leverage ratio using a fully phased-in definition of Tier 1 capital.  
<sup>19</sup> Based on the new regulatory framework (COREP returns), the leverage ratio refers to a capital measure and a total exposure measure with transitional definition of Tier 1 capital.

December 2015, marginally higher than in 2014. This however varied widely among banks, ranging from 4.8% to 67.8%.

### 3.1.5. Stress tests

The Central Bank of Malta carries out a range of stress testing exercises, as part of its financial stability toolkit, to analyse the resilience of the domestic financial system to extreme yet plausible events. The stress tests are aimed at capturing elements of credit risk, market risk, sovereign risk and liquidity risk. More specifically, the following four scenarios are considered:

- (i) credit quality deterioration in the securities portfolio;
- (ii) an increase in NPLs owing to adverse macroeconomic conditions;
- (iii) a drop in property prices;
- (iv) persistent deposit withdrawals.

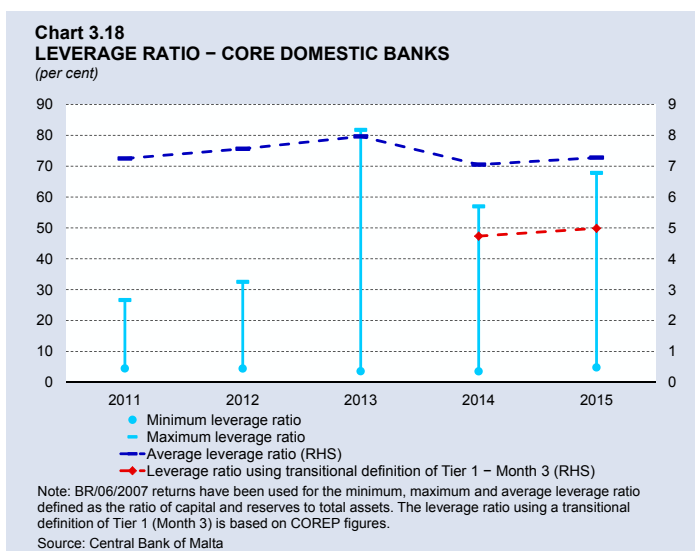
The risk outlook remains similar when compared to the 2014 *Financial Stability Report*, whereby the probability of all individual scenarios materialising is considered to be low. Core domestic banks are in a better position to absorb potential losses following an overall increase in loan loss provisions and strengthening of capital ratios.

The stress test exercises are univariate in nature and the results are to be considered as indicative given that possible second round effects and the effect of simultaneous shocks are excluded in this kind of exercise. Moreover, results for core domestic banks are not strictly comparable to those presented in the previous *Financial Stability Report* given that the sample now includes Mediterranean Bank plc (MedBank), together with its subsidiary Mediterranean Corporate Bank plc, as from January 2016.

### Scenario 1: Credit quality deterioration in the securities portfolio

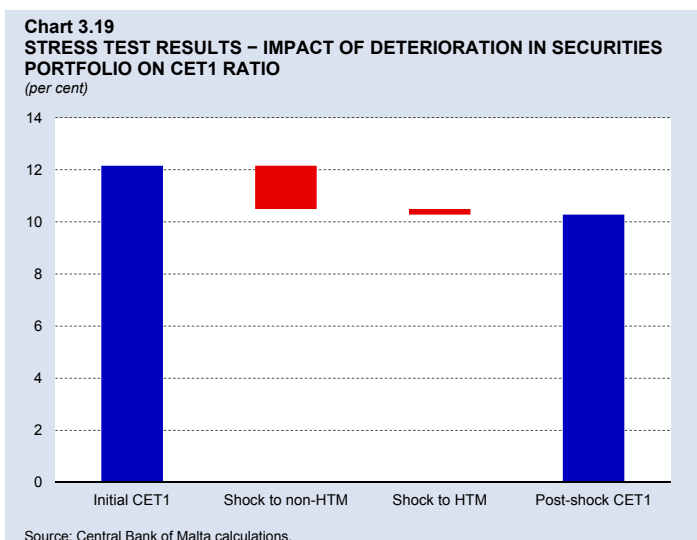
Deterioration in the credit quality of banks' securities portfolio is assessed by distinguishing between securities that are marked-to-market and securities that are HTM. In the case of the former, an increase in the market price of credit risk is commensurate with an increase in the iTraxx index between April 2011 and September 2011, when the increase was the largest and almost monotonic. Credit risk on securities which are HTM is assessed by assuming a three-notch downgrade and applying the respective higher probability of default by credit grade. A loss given default (LGD) of 40% is assumed. The magnitude of the shocks applied to the securities portfolio distinguishes between sovereign and non-sovereign exposures. Resulting losses are charged directly to capital while risk-weighted assets are assumed to remain constant.

The majority of core domestic banks' securities portfolio is investment grade. Indeed, around 93% of core domestic banks' portfolio is rated in the single 'A' bucket. The rating grades for the purpose of analysis are based on a composite index estimated on the basis of the second best credit rating of the three major rating agencies; namely Fitch, Moody's and Standard & Poor's. There are no indications that banks are taking excessive risks or embarking on an aggressive search for higher yield that would raise their risk profile, despite operating with ample liquidity. A slight shift towards floating rate notes was noted. Floating rate



notes are becoming more appealing in a low interest rate environment, given that one of the benefits of holding non-fixed income securities is that the increase in coupons earned, in the eventual rise in interest rates, would offset the valuation losses on marked-to-market securities that would hit banks' balance sheets given the inverse relationship between prices and yields.

The assumed increase in the market price of credit risk and a three-notch downgrade in credit ratings for marked-to-market and HTM portfolios respectively, leads to a drop in the CET1 ratio of almost 2 percentage points resulting in a CET1 ratio of 10.3%, thereby leaving the banks in a comfortable position to absorb potential losses (see Chart 3.19).



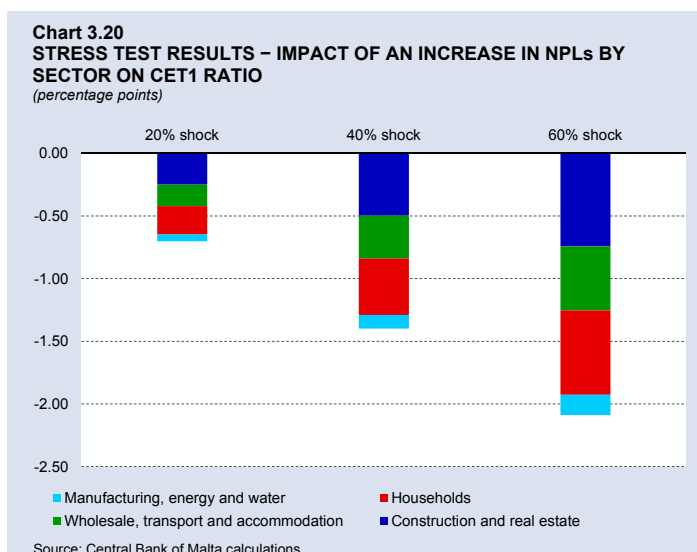
### Scenario 2: An increase in NPLs due to adverse macroeconomic conditions

The scenario assesses the impact of an increase in NPLs in key economic sectors, of varying magnitudes, on banks' loss absorption capacity. The key sectors under review include: construction and real estate; wholesale, transport and accommodation; households; manufacturing, energy and water. Following an increase in NPLs of 20% to 60%, banks are assumed to primarily absorb such losses via loan loss provisions, where the latter are assumed to increase in line with the uncollateralised portfolio on NPLs. This leads to a drop in profits and a consequent fall in capital. Moreover, banks' capital ratio is also negatively affected by higher risk weights associated with NPLs.

Results indicate that even under the most extreme scenario, namely an increase in NPLs of 60% in key economic sectors, the core domestic banks' CET1 ratio remains comfortably above the regulatory minimum, at 10.1%. To note that the loan portfolio of MedBank is composed of syndicated loans issued to foreigners. In this regard, the results presented exclude MedBank's loan portfolio by virtue of the different nature of these loans when compared to the standard loan portfolio of the remaining core domestic banks (see Chart 3.20).

### Scenario 3: A drop in property prices

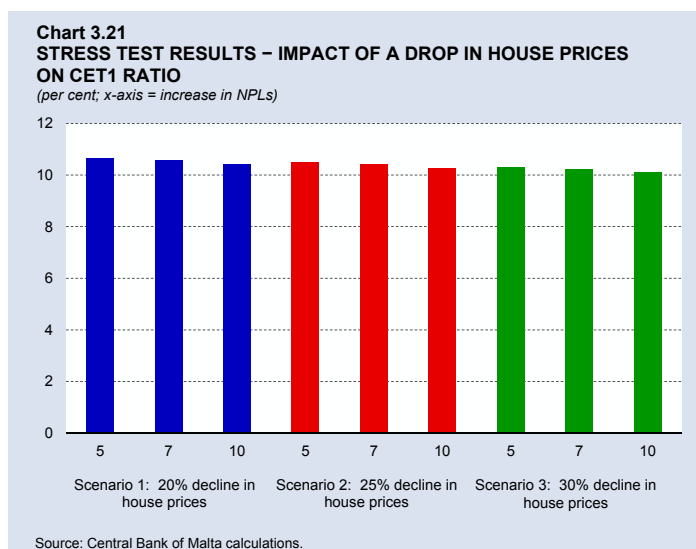
Under this scenario, property prices are assumed to drop by varying magnitudes, ranging from 20% to 30%, where such drop is assumed to fully translate into lower loan



collateral values given that the vast majority of collateral is property related. Among core domestic banks, the only exception is MedBank, whose loan portfolio is composed of syndicated loans to non-residents, and whose collateral is not real-estate related. Consequently, MedBank was excluded from the test.

The test assumes that as collateral values decline, loan loss provisions on NPLs would have to increase accordingly, given that NPLs are covered by a combination of both. Furthermore, the drop in collateral values is assumed to coincide with an increase in NPLs ranging from 5% to 10%, arising from negative wealth effects, with additional NPLs leading to a further increase in loan loss provisions.

Results show that core domestic banks, both individually and on aggregate, would comfortably withstand even the more extreme assumption, i.e. a combination of a drop in property prices of 30% and a simultaneous increase in NPLs of 10% (see Chart 3.21). During 2015, core domestic banks improved their loss absorption capacity by increasing loan loss provisions. Following a drop in collateral values, provisions are assumed to increase by the amount equivalent to the uncovered portion of the loan. Given the increase in loan loss provisions, the impact of the test on banks is milder.



#### Scenario 4: Persistent deposit withdrawals

The liquidity stress testing framework caters for a bank-run type of scenario which assesses whether individual banks' counterbalancing capacity is sufficient to meet assumed liquidity outflows arising from persistent deposit withdrawals. A specific survival period of five consecutive days and up to four weeks is assumed.

The test makes use of granular bank-specific data on bond holdings as well as bond-specific market information such as bid-ask spreads to assess individual banks' counterbalancing capacity. The latter is defined as the quantity of funds at the disposal of a financial institution to meet liquidity requirements. Banks' counterbalancing capacity, which is tested under two different conditions, is shocked to reproduce a scenario when a bank is forced to sell fair value securities to meet deposit withdrawals at a time when liquidity conditions are adverse. Under the first condition, banks are allowed to obtain ECB funding only against securities that were pledged with the ECB as at December 2015 – the reference date. Under this scenario, banks would have to sell the remaining fair value securities at fire sale prices. Banks that hold securities until maturity would be at a disadvantage given that unless these are pledged, no use of such securities can be made to obtain liquidity.

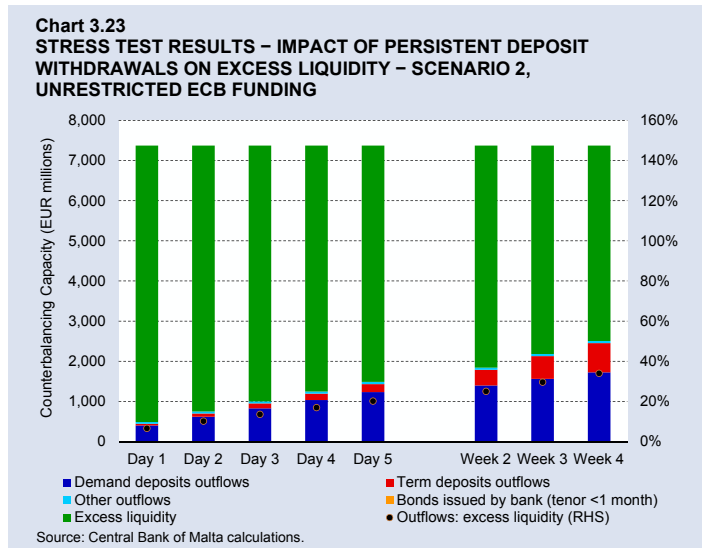
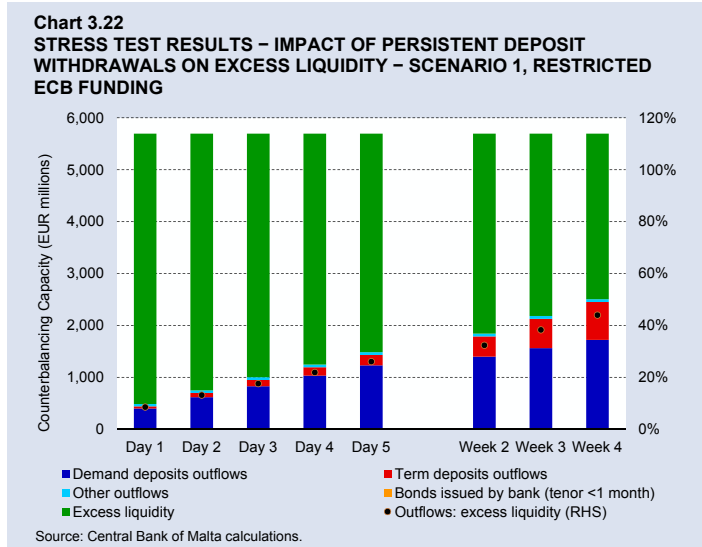
Under the second set of conditions, banks are allowed to pledge all eligible securities with the ECB and sell the remaining fair value securities at fire sale prices. The main difference between the two conditions relates to the use of eligible securities that are unpledged. Moreover, the haircuts assumed for fire sale prices are higher than the valuation haircuts that would be implemented by the ECB.<sup>20</sup>

<sup>20</sup> See Box 2 for further detail on the methodology and haircuts applied in the liquidity stress test.

Charts 3.22 and 3.23 below represent the results for core domestic banks under the two scenarios. The bar chart plots the liquidity flows on the left axis and the excess liquidity for the first five days followed by the subsequent three weeks. The total length of the bar represents the counterbalancing capacity which is assumed to remain fixed. As the scenario proceeds in time, the liquidity outflows increase and excess liquidity contracts. The system would be able to withstand the shock if all deposit withdrawals could be met by the available counterbalancing capacity. The chart also plots the ratio of outflows to excess liquidity represented by a red dot plotted on the right axis.

Given that banks are currently operating with ample liquidity, they would be able to survive persistent deposit outflows with relative ease for more than four weeks, under the assumptions applied in the test, even when ECB funding is restricted and banks are forced to obtain funding through the sale of fair value securities.

As expected a priori, excess liquidity under Scenario 2 is higher than under Scenario 1 given that, under the former scenario, banks are allowed to obtain ECB funding against all eligible securities and not only on the pledged securities, which attract lower valuation haircuts compared to fire sale prices. Deposit outflows remain the same under both scenarios. While banks end up with excess liquidity towards the end of the survival period of around €3.2 billion under Scenario 1, this excess liquidity increases to €4.8 billion under Scenario 2.





## BOX 1: BANK LENDING SURVEY RESULTS

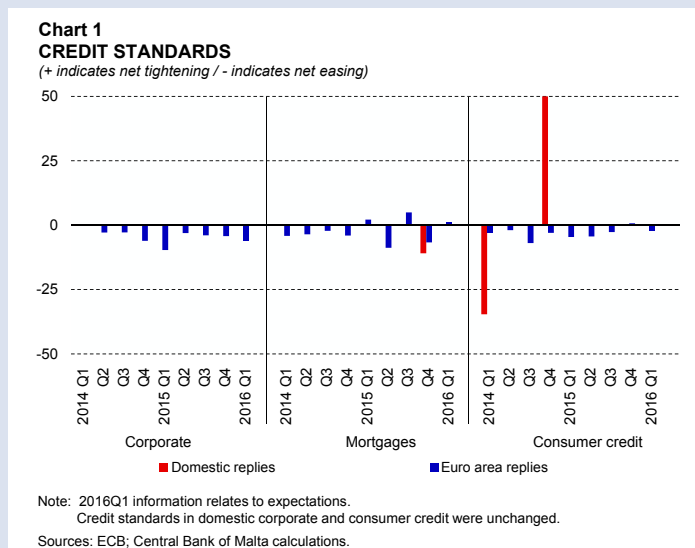
The ECB conducts a quarterly Bank Lending Survey (BLS) across a sample of banks in the euro area.<sup>1</sup> This Survey offers valuable insight on the current euro area lending environment, particularly focusing on developments in the supply and demand for bank credit and financing conditions. The BLS differentiates between three loan classes: loans to non-financial corporations (NFC); loans to households for house purchase; and loans for consumer credit and other lending to households. In Malta, the BLS participants include four of the core domestic banks which altogether represent around 95% of the resident credit market. Domestic replies are weighted and aggregated in the euro area BLS results.<sup>2,3</sup>

### Credit supply conditions

Overall, the Maltese respondent banks did not report any changes in their lending standards for corporates throughout 2015. Despite increased competition among banks, coupled with improved market access, credit standards remained generally stable at tight levels. Such tight credit standards enabled banks to reduce concentration of exposures to particular sectors. No changes were expected in the corporate credit standards for the first quarter of 2016 (see Chart 1).<sup>4</sup> Despite maintaining rather stringent corporate credit standards, domestic BLS banks eased their overall credit terms and conditions mainly via narrower loan interest margins.

In contrast, following a prolonged period of tightening, euro area BLS banks continued to loosen their lending standards for the eighth consecutive quarter. An upward pressure from competition, and to a smaller extent, reduced risk perception, contributed to a relaxation in credit standards applied on loans to enterprises. Simultaneously, euro area BLS respondents eased all of their price and non-price credit terms and conditions, predominantly by narrowing sharply the interest margins on average corporate loans. For 2016Q1, euro area banks envisaged a further net easing on corporate credit standards.

For the first time since mid-2008, Maltese BLS banks eased their credit standards on mortgages in the last quarter of 2015. Such easing was driven by increased competitive pressures and better housing market prospects, albeit partly offset by a deterioration in borrowers' creditworthiness which led to some tightening. The easing was translated into narrower margins and lower non-interest rate charges for



<sup>1</sup> The BLS is addressed to senior loan officers of 141 euro area banks. A revised version of the questionnaire was introduced in the April 2015 survey round.

<sup>2</sup> Net percentages are used to analyse trend estimates. Data are published on the ECB's Statistical Data Warehouse (SDW).

<sup>3</sup> The weighting scheme is based on the amounts of outstanding loans of individual banks in the sample.

<sup>4</sup> Credit standards are the internal guidelines or criteria which reflect a bank's loan policy.

mortgages. No further changes were anticipated in mortgage credit standards for the first quarter of 2016.

Similarly, on a net basis, euro area banks continued to ease credit standards for home loans through a substantial drop in the margins for average loans, underpinned by strong competitive pressures. However, some tightening in mortgage credit standards was foreseen by euro area BLS banks during the first three months of 2016.

With regards to consumer credit, during 2015 Maltese BLS respondents reported that they did not alter credit standards. The tightening brought about by higher risk perceptions and a worsening in the creditworthiness of consumers was completely offset by the easing driven from increased bank competition and favourable developments in the housing market, which on balance left consumer credit standards unchanged, at tight levels. No further changes to consumer lending standards were anticipated for the first three months of 2016.

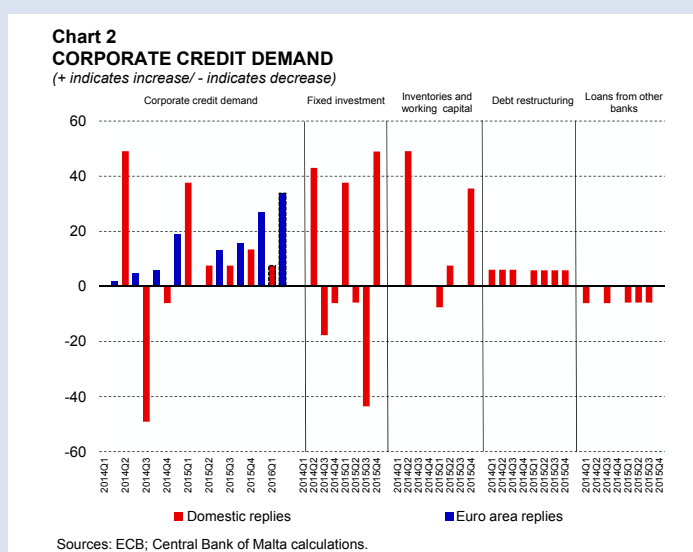
Conversely, euro area banks continued to relax their consumer credit standards until the third quarter of 2015, though in the last three months of that year, some euro area banks tightened credit standards. Stiff competitive pressures led to narrower margins on consumer loans. Looking ahead, euro area credit institutions are anticipating a reversal of the marginal tightening in consumer credit standards.

### Credit demand conditions

The optimistic expectations of Maltese BLS banks expressed in the last quarter of 2014 regarding corporate loan demand were realised in 2015. In fact, enterprises' appetite for loans picked up, gathering pace along the year (see Chart 2). A higher demand for working capital and fixed capital expenditures, together with increasing needs for debt restructuring, triggered the rising trend in corporate loan demand. Given the more favourable corporate credit terms and conditions combined with strong investor confidence, Maltese BLS banks expected corporate loan demand to remain positive in the first quarter of 2016.

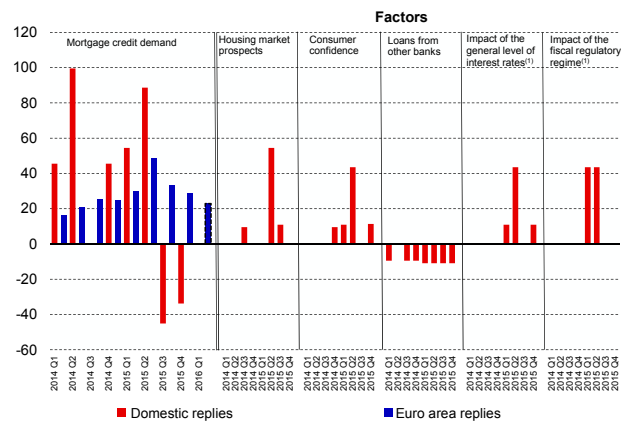
Similar trends in corporate loan demand were reported in the euro area, which has been rising steadily since 2014, gaining momentum during the course of 2015. The low interest rate environment and the growing demand for fixed investment and debt renegotiation, all prompted the persistent increase in demand. A significant recovery in corporate loan demand was projected for the first quarter of 2016.

Following a rising trend in mortgage credit demand since 2013, some reversal was reported as from the second half of 2015 and this is expected to persist



in the first three months of 2016 (see Chart 3). Notwithstanding this, on balance, mortgage credit demand grew in 2015 on the back of improved consumer confidence, better housing market prospects as well as the low level of interest rates contributed to the expansion in mortgage loan demand. However, higher competitive pressures, coupled with the temporary lifting of favourable fiscal measures aimed at first-time buyers contributed to the slowdown in the growth of mortgage demand in the second half of 2015.

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

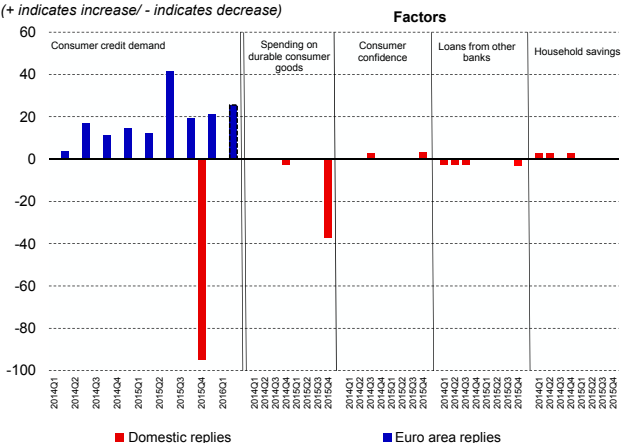


<sup>(1)</sup> These two factors were introduced as from the April 2015 BLS round to reflect the prevailing conditions affecting the home loan market.  
Sources: ECB; Central Bank of Malta calculations.

In the euro area, the upswing in mortgage credit demand, which commenced in 2014, intensified throughout 2015 and expected to maintain this trend during the first quarter of 2016. The low interest rate environment together with improved housing market prospects and upbeat consumer sentiment sustained the expansion in mortgage loan demand in the euro area.

Domestic consumer credit demand remained subdued and declined further during the last quarter of 2015, reflected in the net drop shown in Chart 4. This is anticipated to remain negative during the first quarter of 2016. The decline in consumer credit demand reported by banks, despite strong growth in household consumption and imports of consumer durables, indicates that consumers are resorting to alternative sources of finance other than bank credit.

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



Sources: ECB; Central Bank of Malta calculations.

In contrast, euro area BLS banks continued to witness a strong and growing demand on the back of higher consumer spending, improved consumer confidence accompanied by a prolonged low interest rate scenario. Euro area demand for consumer credit is anticipated to intensify further in the first three months of 2016.

## BOX 2: THE LIQUIDITY FRAMEWORK

The Stress Testing and Risk Models Office (STRM) within the Central Bank of Malta has updated its suite of univariate stress tests with an improved framework for assessing liquidity risk. The test exploits granular data on the securities holdings of banks and adopts a broad definition of liquidity to assess individual domestic banks' counterbalancing capacity in the case of a bank-run type scenario. Counterbalancing capacity is defined as the quantity of funds at the disposal of the bank that can be used to meet liquidity requirements which, for the purpose of this test, is simulated under two different scenarios. A specific survival period of five consecutive days and up to four weeks is assumed. The outcome of the test identifies whether the system and individual banks, following liquidity outflows and the release of counterbalancing capacity, remain liquid or otherwise within the assumed survival period.

### Overview of the model

The model draws from various IMF working papers, including IMF Financial Sector Assessment Programmes (FSAP), and works by OeNB experts, particularly Schmieder et al. (2012).<sup>1</sup> The former *Financial Stability Report* liquidity framework, whose results were published in the *Financial Stability Report 2013* and the preceding published *Financial Stability Reports*, was based on Čihák's 2007 paper.<sup>2</sup> The old framework stressed the liquidity position of banks by assuming persistent deposit withdrawals ranging from 10% to 20% of total deposits daily, for five consecutive days. Banks were assumed to utilise the assets at their disposal which qualified as liquid under the relevant Banking Rules issued by the Malta Financial Services Authority (MFSA). The test did not apply any haircuts to these liquid positions and did not allow banks to tap into other sources of funding, such as ECB refinancing operations and repurchase agreements (REPO). The counterbalancing capacity was rather restricted as only assets in their most liquid form were utilised in the test.

In the current new framework, a broader counterbalancing capacity is assumed as well as a longer survival period. Banks are tested against an extreme but plausible liquidity outflow as a number of depositors withdraw their demand and time deposits. The quantity of funds at the banks' disposal to meet liquidity requirements is tested under two different scenarios with the main difference being the use of ECB eligible securities – under one scenario, only ECB-pledged securities may be used to obtain ECB funding (Scenario 1); whilst in the second scenario, ECB funding may be obtained against all securities that are eligible as at the reference date (Scenario 2). For further detail on the assumptions adopted under the two different scenarios refer to counterbalancing capacity: Scenario 1 and Scenario 2 below. Under both scenarios, instruments issued by banks which mature during the survival period are included as part of the counterbalancing capacity. These are assumed to be rolled over at a higher yield to compensate the bond holder for the increased liquidity risk faced by the bank. The par value and final coupon payment of securities with a remaining term to maturity of less than four weeks are also added. Banks may also utilise their excess deposit with the Central Bank under the reserve deposit requirement, as well as their total reserve. Cash and cash equivalents available on banks' balance sheets also form part of their counterbalancing capacity. Intra-group funding and interbank are however assumed not to be available. This assumption is justified by the funding liquidity challenges for many banks observed in practice during periods of liquidity shortage whereby interbank markets usually dry up.

The extent of deposit withdrawals differs according to the type of customer, type of account and survival period. For example, retail and corporate customer demand deposit withdrawals are set at 1% and 2% daily, respectively. Household deposits represent a rather stable source of funds for banks. Indeed, the Deposit Compensation Scheme limits the extent of deposit withdrawals by households in

<sup>1</sup> Schmieder et al., (2012), "Next Generation System-Wide Liquidity Stress Testing", IMF Working Paper WP/12/3.

<sup>2</sup> Čihák, (2007), "Introduction to Applied Stress Testing", IMF Working Paper WP/07/59.

a liquidity run scenario given that deposits of up to €100,000 are guaranteed in Malta. Government deposits are assumed to be withdrawn in their entirety during the survival period.

Shorter-dated, three-month term deposits are assumed to mature in a uniform fashion, maturing at a linear daily rate of 1/67 per working day. Longer-dated securities are not accounted for, as an assumed uniform daily maturity rate would result in an insignificant withdrawal.

### Counterbalancing capacity: Scenario 1

The counterbalancing capacity is shocked to reproduce a scenario where liquidity on the exchange is thin. In the first scenario, banks can sell all non-HTM unencumbered securities and get ECB funding against pledged securities. In addition, the following is assumed:

- ECB haircuts are applied on pledged HTM and non-HTM securities (see Table 2).
- Non-pledged HTM securities can neither be added to the collateral pool nor liquidated on the market.<sup>3</sup>
- Non-pledged fair value securities are liquidated on the exchange at fire sale rates (further detail on fire sale rates below).

### Counterbalancing capacity: Scenario 2

In Scenario 2, banks get ECB funding against all ECB eligible securities, not only against those that are pledged, and sell the remaining non-eligible, fair value securities, which is the main difference compared to Scenario 1. The following is assumed:

- The ECB haircut is applied on eligible HTM and non-HTM securities.
- Non-eligible HTM securities cannot be liquidated.<sup>4</sup>
- Non-eligible, fair value securities are liquidated on the exchange at fire sale rates.

### Counterbalancing capacity haircuts

Table 1 below includes information on the haircuts applied on securities that are pledged with the ECB. ECB valuation haircuts differ in terms of security category and remaining term to maturity.<sup>5</sup>

**Table 1**  
**ECB VALUATION HAIRCUTS FOR INVESTMENT GRADE SECURITIES**

*Per cent*

Remaining term to maturity (years)	Category 1	Category 2	Category 3	Category 4	Category 5
	Government	Supranational	Other	Financial	ABS
0-1	0.5	1.0	1.0	6.5	10.0
2-3	1.0	1.5	2.0	8.5	10.0
4-5	1.5	2.5	3.0	11.0	10.0
6-7	2.0	3.5	4.5	12.5	10.0
8-10	3.0	4.5	6.0	14.0	10.0
11-30	5.0	8.0	9.0	17.0	10.0

Source: ECB.

<sup>3</sup> Note that this exclusion makes the test more extreme since under stressed situations banks could also liquidate HTM securities irrespective of the accounting rules.

<sup>4</sup> See Footnote 3.

<sup>5</sup> [https://www.ecb.europa.eu/ecb/legal/pdf/en\\_dec\\_2015\\_35f.pdf](https://www.ecb.europa.eu/ecb/legal/pdf/en_dec_2015_35f.pdf)

**Table 2**  
**MARKET LIQUIDITY HAIRCUTS (ADVERSE SHOCK)**

*Per cent*

	Category 1 Government	Category 2 Supranational	Category 3 Other	Category 4 Financial	Category 5 ABS
<b>AAA</b>	1	3	6	20	50
<b>AA+ to AA-</b>	1	3	6	20	50
<b>A+ to A-</b>	3	5	8	25	80
<b>BBB+ to C</b>	5	7	15	50	100
<b>D</b>	100	100	100	100	100
<b>WD</b>	100	100	100	100	100

Source: IMF.

With regards to fire sale rates, two scenarios are assumed. In the less adverse scenario, a 10% shock is applied to the bid-ask spread of bonds held in a bank's securities portfolio.<sup>6</sup> In setting more adverse haircuts, the exercise draws from the 2012 IMF working paper by Schmieder et al., and the most recent 2014 Austrian FSAP report, as per Table 2.<sup>7</sup> The haircuts applied differ on the basis of credit rating grade and exposure category.<sup>8</sup>

System-wide implications can be drawn from the analysis of the aggregate bank's position. The outcome of the model is binary in that it identifies whether a bank, following liquidity outflows and its release of counterbalancing capacity, remains liquid or otherwise within the assumed survival period. The extent of excess liquidity, if any, under the stressful conditions is also presented.<sup>9</sup>

<sup>6</sup> During September 2008, at the peak of the crisis, the size of the bid-ask spread was in the 5-10% range across different asset qualities. Barnhill and Schumacher (2011) "Modelling Correlated Systemic Bank Liquidity Risks", IMF Working Paper WP/11/263.

<sup>7</sup> <http://www.imf.org/external/pubs/ft/scr/2014/cr1416.pdf>

<sup>8</sup> Categories are aligned with those used by the ECB in its December 2014 *Guideline on the Implementation of the Eurosystem Monetary Policy Framework*.

<sup>9</sup> Results of the liquidity stress test are included in Chapter 3.

### BOX 3: MACRO STRESS TESTING (MST) FRAMEWORK

The Central Bank of Malta, in its task of ensuring the stability of the financial system, regularly monitors and assesses risks prevalent both in the domestic economy as well as those emerging from the international environment. In order to improve further its financial stability toolkit, the Bank is introducing a new methodological framework, based on a top-down approach, which seeks to assess the impact of movements in the macro-economic and financial environment on banks' balance sheets under different scenarios. In particular, adverse macroeconomic shocks are translated into capital adequacy ratios to assess financial sector resilience following which, resulting ratios are gauged against regulatory thresholds. The framework is built on the basis of international standards and work on the model is at an advanced stage. The purpose of this Box is to broadly introduce this methodological framework, including the modules that test for various sources of risk, and the assumptions that will be adopted.

The exercise is run on a two-year time horizon and employs two macroeconomic scenarios, namely the baseline and adverse scenarios where shocks in the latter scenario are by definition more

adverse than the baseline.<sup>1</sup> In line with the overarching principle of stress testing, the magnitude of the shocks under the adverse scenario is set to be extreme yet plausible. The macroeconomic scenario is developed in line with the risks perceived by the ECB and European Systemic Risk Board (ESRB), highlighted in the Risk Analysis reports. The scenario is fine-tuned in line with domestic specificities and vulnerabilities.

The test assumes a static balance sheet, implying that assets and liabilities which mature within the time horizon of the exercise are replaced with similar financial instruments in terms of type, credit quality, and date of maturity as at the start of the exercise so that the structure of the balance sheet remains similar to its position at the reference date. Whilst it is acknowledged that a static balance sheet assumption is quite restrictive, this assumption, similar to the EBA EU-wide stress testing exercises, allows for ease of comparability across the results of banks within the sample.

The framework is based on a number of modules which test for various sources of risk including market, credit and sovereign risk.<sup>2</sup> The risks arising from sovereign exposures are covered in credit and market risk depending on the securities' accounting treatment. The framework is flexible in a way that additional modules can be incorporated, and the magnitude of shocks can be easily modified. Modules can also be run individually so as to assess a particular source of risk, such as the module on credit risk in the securities portfolio.<sup>3</sup>

The rest of the information presented in this Box includes an overview of the methodology currently adopted for the various sources of risk being tested.

**Credit risk** is quantified, both in the loans and securities portfolios, albeit a different methodology is adopted in the quantification of the two sources of risk. Credit risk in the loan book is quantified via the assessment of macro-financial linkages including the impact of a macroeconomic shock on NPLs. The impact of the increase in NPLs is then translated into a higher level of provisions which in turn, adversely impacts the profit and loss account and ultimately the capital ratio via retained earnings.

The market price of credit risk in the securities portfolio is quantified by way of widening of credit spreads in marked-to-market securities and a three-notch rating downgrade in HTM securities. The type and magnitude of the shocks applied differ between both the accounting treatment of securities as well as by the sector of exposure, i.e. whether financial or otherwise.

Credit risk of securities that are HTM is quantified via the increase in the probabilities of default following a three-notch rating downgrade. A LGD of 40% is assumed on both the sovereign and non-sovereign portfolio, while a lower LGD is assumed on covered bonds. HTM securities are amortised and therefore not affected by market price movements. However, in the case that the amortised cost is above nominal value, the difference has to be also provided for. In contrast, if the amortised cost is below par, the booked difference may be released to absorb the expected losses.

<sup>1</sup> The baseline scenario reflects shocks which are in line with business as usual, and normally such shocks follow a similar profile to the macroeconomic projections from a survey of economic forecasters. For instance, the baseline scenario of the 2016 EBA EU-wide stress test was based on 2015 autumn forecast of macroeconomic variables. Conversely, the magnitude of the shocks contemplated in an adverse scenario should reflect extreme yet plausible events to determine bank resilience to such unexpected events over a stipulated time horizon (for instance of around 2 to 3 years). The adverse scenario in the 2016 EU-wide stress test reflected the systemic risks that were assessed by the ESRB General Board as representing the most pertinent threats to banking sector stability, the magnitude of which were derived as deviations from baseline. As an example, the adverse scenario in the 2016 EU-wide stress test implied a deviation of EU GDP from its baseline level by 3.1% in 2016, 6.3% in 2017 and 7.1% in 2018, with resulting growth rates of -1.2%, -1.3% and +0.7% for the three years respectively.

<sup>2</sup> Foreign exchange risk is currently outside the scope of the framework. Derivatives, including hedging positions, are also not considered.

<sup>3</sup> The stress test which tests for credit quality deterioration in the securities portfolio, presented in Chapter 3, employs one of the modules of the MST.

The rating grades are based on a composite index estimated internally, on the basis of the second best rating of the three main External Credit Assessment Institutions (ECAI), namely Fitch, Moody's and Standard and Poor's. As aforementioned, credit risk of securities that are marked-to-market is expressed in terms of widening of credit spreads, where the shock is sourced from the largest increase in the iTraxx European Senior Financials CDS index.<sup>4</sup>

**Market risk**, including the impact on cost of funding, is quantified via a change in the risk-free rate. The impact of an increase in interest rates is assumed to be twofold, namely marked-to-market losses given the inverse relationship between prices and yields, and higher coupons earned on floating rate notes which would be reflected in the calculation of net interest income. Moreover, given the static balance sheet assumption, securities which mature during the time-horizon are rolled over, at the new interest rates. To note that the accounting treatment of fair value changes on securities accounted for as available for sale (AFS) and fair value through profit and loss (FVTPL) differs. While fair value changes on AFS securities are reserved in the statement of financial position (balance sheet) and thus not recognised in the statement of profit or loss (profit and loss account), similar changes on the FVTPL are not reserved in the balance sheet but taken directly to the statement of profit or loss.

Given the flexibility of the model, including on the assumptions applied, the framework can cater for both an increase or decrease in the risk-free rate, as well as a flattening or steepening of the curve. A flattening of the yield curve would capture the scenario where banks ride the curve, namely that of funding themselves in the short term and investing in the medium-to-long term. Banks which are holding a higher proportion of floating rate notes would be more negatively impacted by a flattening of the curve than by a parallel shift given that less income would be earned from rising interest rates. However, the additional holding of floating rate notes would assist banks in insulating their portfolios from valuation losses arising from positive shifts in the risk-free rate.

The change in interest rates will also have an impact on both the loan book and the banks' liabilities, including deposits. The change in the margin of re-priced instruments is subject to 'pass-through' constraints, which provide floors to interest-bearing liabilities and caps in the case of interest-earning assets. While an increase in the risk-free rate is reflected in higher interest expense paid on deposits, the extent to which this expense is reflected in interest income is asymmetric. The assumption on the magnitude of the margin paid on deposits currently follows the EBA 2016 stress test methodology which is broadly based on the change in the sovereign spread and an idiosyncratic component which reflects a shock to the margin following a rating downgrade of the bond issuer.

Non-interest income components, the majority of which include net fee and commission income, and administrative expenses, are currently assumed to remain constant over the two-year horizon.

The model also assumes a shock to the bid-ask spread as a measure for quantifying the **market price of liquidity**. Moreover, the framework also quantifies **operational risk**, using the Basic Indicator Approach which assumes that banks must hold capital for operational risk equal to the average fixed percentage of positive annual gross income over the previous three years.

The impact of the materialisation of shocks listed above is primarily absorbed via the profit and loss account, with the exception of fair value changes on AFS securities which are reserved in the balance sheet.

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<sup>4</sup> The European CDS Index is selected given that the vast majority of the portfolio under review is exposed to Europe. The North American CDS Index was also considered.



The dividend pay-out ratio, when a bank remains profitable, is based on individual bank's publicly declared projected dividend policies.

Results are produced under two scenarios – baseline and adverse – and for a two-year horizon; however assuming a static balance sheet. The ultimate aim of the Framework is to determine whether, following the materialisation of the contemplated scenario, individual and aggregate banks' capital positions remain sound. The resulting capital ratios are assessed against the respective regulatory thresholds. A warning signal follows for in-depth review of the particular case when a bank's capital position is close to or below the stipulated regulatory thresholds. The MST framework acts as a tool for assessing bank's potential sources of vulnerabilities inherent in their balance sheets, and their ability to absorb these losses should they materialise.

The framework is flexible and dynamic in nature and will benefit from further refinements in both the methodology and assumptions applied on the basis of new data availability, changes in the risk profiles or business models of banks, and developments in the domestic and international markets. The magnitude and direction of shocks are also revised on the basis of emerging risks. The model will undergo a thorough testing phase before outcomes are published.

## 3.2 Non-core domestic banks

In 2015, the number of non-core domestic banks decreased from nine to six banks. One bank was reclassified as an international bank due to reduced links with the domestic economy, whereas two other banks were reclassified as core domestic banks given their increased links with the economy.<sup>21</sup> In 2015, the size of the six non-core domestic banks grew by 6.4%, bringing the total assets of this category of banks equivalent to 26.8% of GDP.<sup>22</sup> The linkages with the domestic economy remained limited, with resident assets and resident liabilities each accounting for less than one-fifth of the banks' balance sheet size. Overall, these banks remained well capitalised and their profitability improved over the previous year.

### 3.2.1 Asset structure

The business model of the non-core domestic banks varies substantially, both in terms of sources and uses of funds. On the assets side, half of these banks trade mainly in retail activities while one bank invests a significant proportion of its funds in debt securities. The remaining two banks transact mostly with institutions within their respective group structure. All of the non-core domestic banks invest in Malta Government paper, although the relative importance of such investment varies from negligible to around a fifth of the respective bank's total assets. Four non-core domestic banks have resident customer loans on their balance sheet to some degree, but this makes up only a small part of their total retail activities. Other resident assets are in the form of equity held in investment funds; and claims on the Central Bank of Malta and the Eurosystem.

The 6.4% growth in total assets of non-core domestic banks in 2015 was mainly attributable to higher claims on general government. These holdings, which were channelled into debt securities issued by the US Federal Government and the Government of Malta, more than doubled to reach 13.2% of total assets (see Chart 3.24). This change was not reflected across all banks in this category, but was rather bank-specific.

Similarly, claims on the Central Bank of Malta more than doubled in value, albeit representing merely 2.4% of total assets by end 2015. Claims on the private sector (excluding banks), which remained the largest

<sup>21</sup> Credit Europe Bank NV was reclassified to international bank whereas Mediterranean Bank plc and its subsidiary Mediterranean Corporate Bank Limited are considered as core domestic banks based on a sub-consolidation approach. Refer to *Financial Stability Report 2014*, 'Categorisation of banks according to systemic relevance'.

<sup>22</sup> In 2014, prior to the reclassification, the size of the non-core domestic banks amounted to 75.9% of GDP.

component of the banks' balance sheet structure, increased slightly, though their share in total assets declined to 43.3%.<sup>23</sup> By contrast, interbank claims contracted, reducing their share in total assets by 8 percentage points to 38.3%. Two banks, one of which was in the process of being taken over, were the main source of this drop.

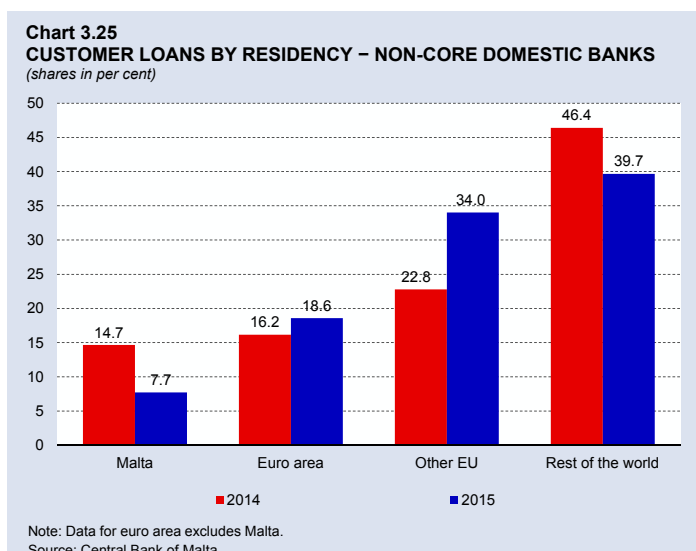
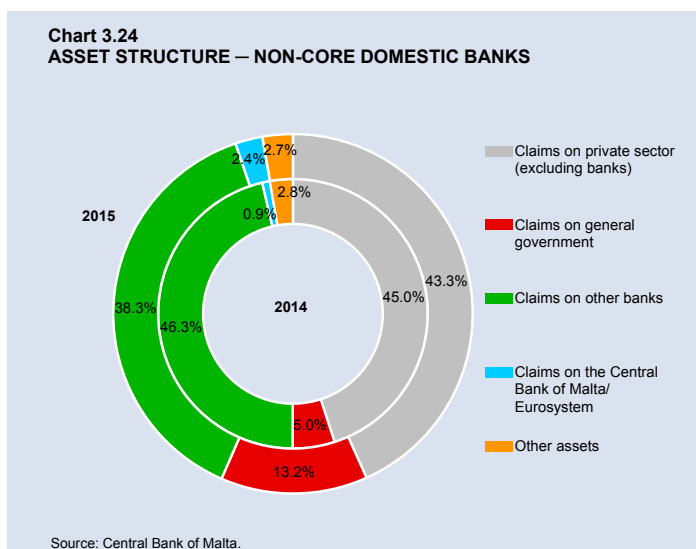
### 3.2.2 Asset quality

#### Loan portfolio

Loans accounted for 36.4% of the non-core domestic banks' balance sheet in 2015, down from 40.8% a year earlier. This contraction in the loan portfolio was driven by a drop of 4.9% in customer loans, following the repayment of a facility related to the resident energy sector. As a result, resident customer loans halved, and represented 7.7% of the banks' total customer loans (see Chart 3.25). Consequently, links with the domestic economy weakened further, with resident customer loans of non-core domestic banks representing merely 0.6% of the total resident customer loans.

Customer loans to non-residents grew by 2.8%. Such lending was mainly channelled to non-euro area EU countries, rising by 42.0%, gaining a greater share in total loans. The increase was relatively lower with regard to loans granted to euro area residents. By contrast, customer loans to non-EU residents fell by 18.7%, but continued to represent the largest loan segment, accounting for almost 40% of total customer loans. From a sectoral perspective, the growth in lending to non-residents emanated from the financial and insurance activities sector, and to a lesser extent, the transportation and storage and the real estate sectors.

In 2015, the loan quality of the non-core domestic banks improved, as the NPL ratio declined to 4.1% from 4.5% a year earlier. The bulk of NPLs were attributed to one bank and pertained mostly to the non-resident financial and insurance sector. The coverage ratio dropped from 77.1% in 2014 to 62.8% as at end 2015. This was mainly attributable to a drop in specific provisions, reflecting lower NPLs on the loan book of one bank.



<sup>23</sup> Claims on private sector (excluding banks) comprise other financial intermediaries and financial auxiliaries, insurance corporations, pension funds, corporates and households.

### Investment portfolio

The investment portfolio of non-core domestic banks expanded by around 14% during 2015, underpinned by higher equity holdings. Indeed equities more than doubled during the year and represented slightly over a third of the total investment portfolio and 11.0% of total assets. Resident equity holdings accounted to around half of this group of banks' total equity portfolio.

On the other hand, despite the higher holdings of sovereign bonds, the total bond portfolio of this group of banks contracted by €56.5 million to €476.1 million, equivalent to 20.2% of total assets. This decline reflected fewer holdings of bonds issued by the corporate sector (including Monetary Financial Institutions) in EU countries. This change was however driven by a bank which was in the process of winding down. Excluding this bank, the total bond portfolio would have increased by €206.2 million to €467.1 million mainly owing to increased holdings of US sovereign bonds.

The downsizing in the bonds portfolio brought about a change in the structure, with domestically-issued bonds (predominantly MGS) gaining the largest share in the banks' investment portfolio, reaching 38.3% of total securities (see Chart 3.26). Similarly, the share of bonds issued in non-EU countries doubled, with the increase largely reflecting higher holdings of US sovereign debt. At the same time, both the holdings and the share of bonds issued by EU countries (excluding countries most affected by the financial crisis) declined considerably, whereas holdings of bonds issued in countries which were most affected by the financial crisis increased slightly in absolute terms.<sup>24</sup> However these continued to account for a small proportion in total bond holdings.

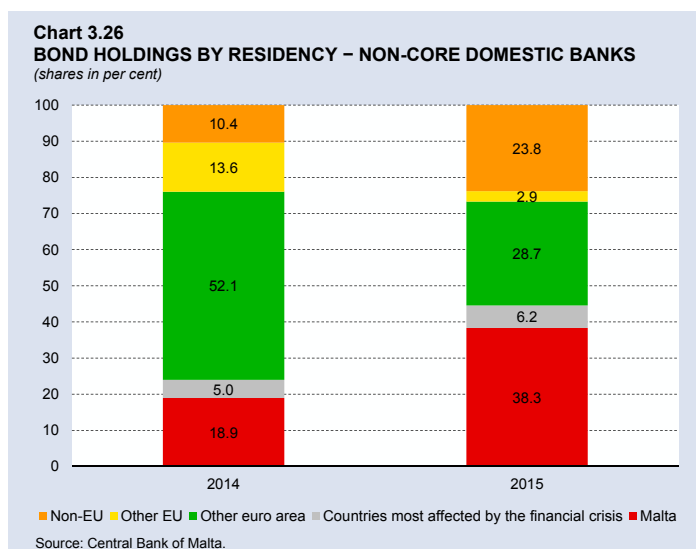
Overall, the credit quality of the bond's portfolio of the non-core domestic banks improved with the shedding of some medium-rated and unrated bonds and an increase in holdings of higher-rated bonds.<sup>25</sup> Consequently, the share of high-rated bonds increased from 29.3% to 44.6% of their overall bond portfolio.

This group of banks did not report any non-performing securities and consequently as at end of 2015, the NPE ratio stood at 3.0%.

### 3.2.3 Funding and liquidity

Differences in the business model across non-core domestic banks are also evident in their funding structure. Four out of the six banks access the retail market for the bulk of their funding needs, with some banks also tapping the resident household deposit market, while the wholesale market is the primary source of funding for one bank. All the liabilities of the remaining non-core domestic bank are in the form of shareholders' funds as it was in the process of being sold.

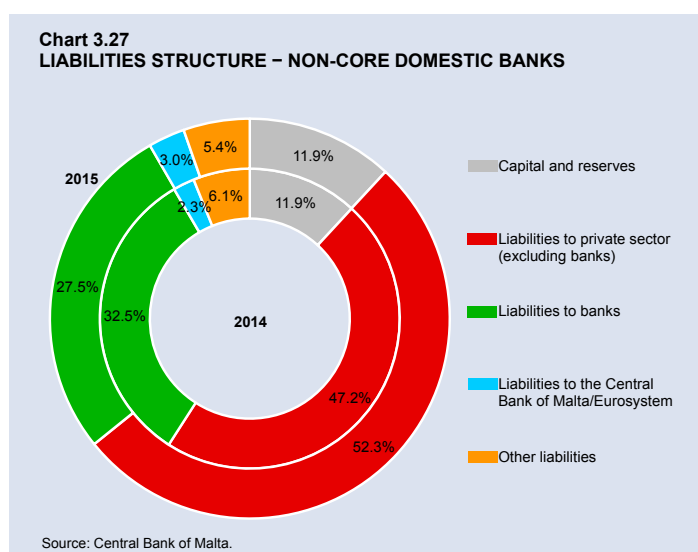
Overall, the funding structure of the non-core domestic banks remained broadly stable in 2015, with slightly more than half of their operations financed through liabilities to the private sector, mostly composed of



<sup>24</sup> Countries mostly affected by the financial crisis include Cyprus, Greece, Ireland, Italy, Portugal, Slovenia and Spain.

<sup>25</sup> High rated bonds are rated as AAA to AA-, medium rated as A+ to A-, and low rated as BBB+ to BBB-.

customer deposits (see Chart 3.27). During the period under review, the customer deposit base expanded by 18.6% to €1.2 billion and is primarily composed of non-residents deposits, mainly from financial intermediaries and households. The non-core domestic banks also reported higher resident customer deposits, up by 14.3% to almost €340 million, partly reflecting more competitive interest rates offered by these banks. The weighted average interest rate on resident euro-denominated deposits ranged from 1.4% to 3.5%, which is higher than the weighted average interest rate offered by core domestic banks which ranges between 0.3% and 2.4%. By end 2015, resident customer deposits accounted for 28.9% of the non-core domestic banks' customer deposit base, though this represents only 2.3% of total resident customer deposits.



Funding from other banks remained the second most important source of financing for this group of banks, although this source declined by 10.0% during the period under review, owing mainly to a bank which was in the process of being taken over. By end 2015, interbank funding accounted for over a quarter of the non-core domestic banks' balance sheet value. About 60% of such funding is mainly composed of funds from unrelated institutions, mostly residing in non-EU countries and denominated in US dollar.

During 2015, Eurosystem funding increased by more than a third to almost €70 million owing to a greater participation by one non-core domestic bank in long-term refinancing operations. However, Eurosystem funding still constituted a minor funding source for this category of banks, financing merely 3% of total assets. The share of capital and reserves remained stable compared to the previous year, accounting for around 12% of total liabilities.

Throughout 2015, non-core domestic banks were characterised by ample liquidity, also indicated by the high level of liquid assets-to-short-term liabilities, though this ratio declined by 14.7 percentage points to 63.3% in 2015, owing to a faster increase in short-term liabilities than liquid assets.<sup>26</sup> The overall LCR governed under the CRR/CRD IV framework stood at 100.2%, exceeding the initial minimum regulatory requirement of 60% with all banks in this category exceeding this minimum.<sup>27</sup>

### 3.2.4 Profitability

Following the extraordinary losses in 2014 arising from high impairment charges by a non-core domestic bank, post-tax profits rebounded. As a result the ROA and ROE (after tax) improved to 0.2% and 1.4%, respectively, up from -1.3% and -6.4% a year earlier (see Chart 3.28).<sup>28</sup>

Meanwhile, net interest income contributed negatively as it declined by around 15%, mirroring the drop in customer loans coupled with a higher customer deposit base; on the back of declining interest rates. Despite improved returns, the efficiency of these banks weakened, as indicated by the cost-to-income ratio which

<sup>26</sup> Prior to the enforcement of the CRR/CRD IV framework, banks were governed by a minimum regulatory threshold of 30% under Banking Rule 05/2007.

<sup>27</sup> The LCR ratio will be progressively implemented in accordance with the CRR as follows: 60% from 1 October 2015, 70% from 1 January 2016, 80% from 1 January 2017, and 100% from 1 January 2018. The LCR will be fully-phased in by 2018 – one year earlier than required under the Basel requirements.

<sup>28</sup> ROA and ROE based on profits before tax stood at 0.1% and 0.9%, respectively.

increased from 56.1% in 2014 to 73.4% in 2015. Lower gross income by one bank which was in the process of being taken over, coupled by higher non-interest expense by another bank, particularly other administrative expenses and wages, lead to weaker efficiency for the whole category of banks.<sup>29</sup>

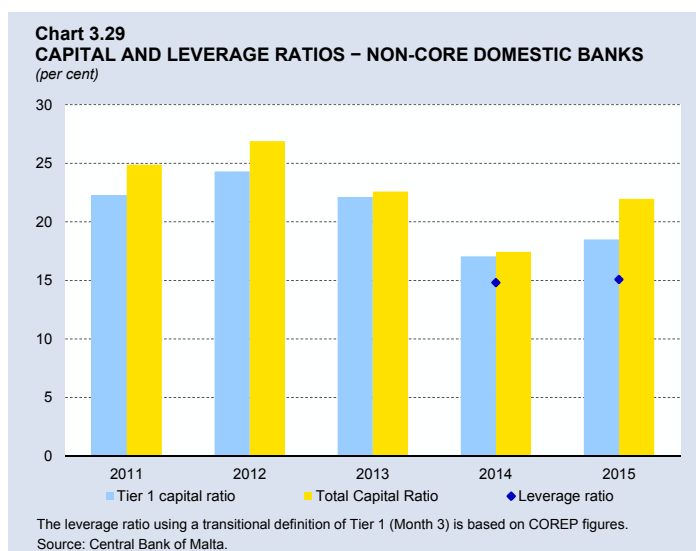
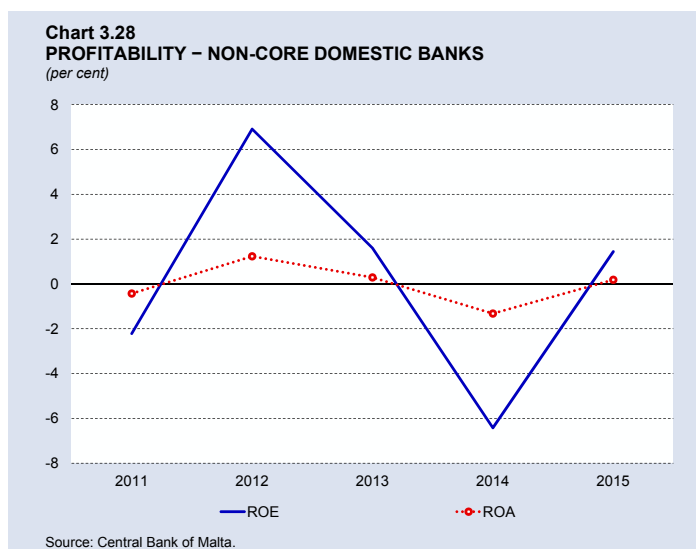
### 3.2.5 Capital and leverage

The capital position of the non-core domestic banks remained strong during 2015 and improved further over the previous year. Indeed, the Total Capital Ratio rose by 4.5 percentage points to 22.0%, mainly owing to a bank which significantly raised capital during the second half of the year (see Chart 3.29). Similarly, Tier 1 capital ratio stood at 18.5%, up from 17.0% a year earlier. Lower risk exposures also contributed positively to the capital ratios, partly reflecting the contraction in the balance sheets of some banks.

The leverage ratio governed under the CRR/CRD IV framework was estimated at around 15% in December 2015, slightly higher than the 14.8% reported a year earlier.<sup>30</sup> Meanwhile, a more simple measure of leverage, defined as the proportion of capital-to-total assets remained unchanged at 11.9%.

### 3.3 International banks

During the year under review, the number of international banks increased to 15, with three new banks starting operations in 2015, and one reclassified from a non-core domestic bank to an international bank.<sup>31</sup> Nevertheless, the total assets of international banks contracted significantly, owing mainly to developments by the two branches of non-EU banks, which are relatively larger in size when compared to other international banks. Another bank consolidated its operations through capital positioning within its group, while a number of other international banks reduced their intra-group exposures. As a result, total assets decreased to €24.2 billion in 2015, equivalent to 275.3% of GDP, down from 374.3% a year earlier.



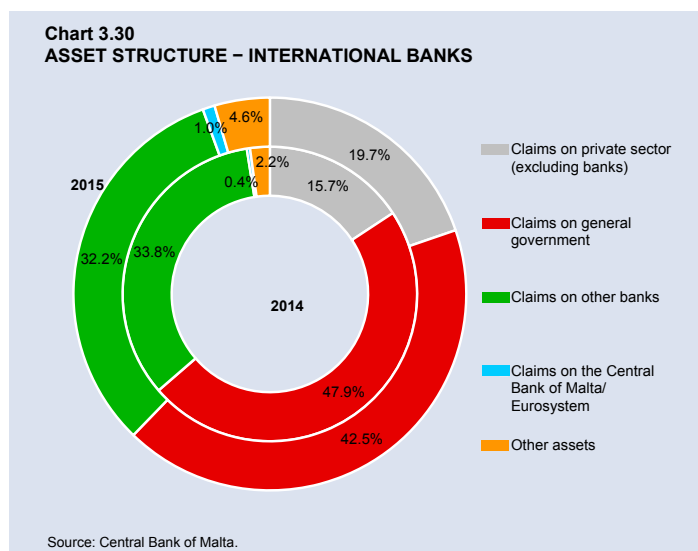
<sup>29</sup> The cost-to-income ratio is defined as operating expenses (net of amortisation but including intangible assets other than goodwill) to gross income (net interest income and non-interest income). Impairment charges are excluded from the computation of this ratio.

<sup>30</sup> In 2014 and 2015, the leverage ratio is computed by using the transitional definition of Tier 1 capital divided by a total exposures measure as required under the CRR/CRD IV framework.

<sup>31</sup> Credit Europe Bank NV was reclassified from non-core domestic bank to an international bank. SATA Bank Plc and Yapi Kredi Bank Malta Ltd commenced operations in 2015 while Credorax Bank Ltd, previously a financial institution, was granted a banking license.

### 3.3.1 Asset structure

The business model of international banks is characterised by retail activities with non-residents, with most banks also active on the interbank market, some to a significant degree. Four international banks transact almost entirely with their parent institutions. Overall, the asset composition of international banks remained broadly stable although the fall in total assets of the two branches of non-EU banks affected the size of claims on government. This is due to the fact that these two large branches sold-off part of their sovereign bond holdings issued in their home country, reducing somewhat the home bias. This led to a decline in the proportion of claims on government, contracting by around 5.5 percentage points to 42.5% (see Chart 3.30).



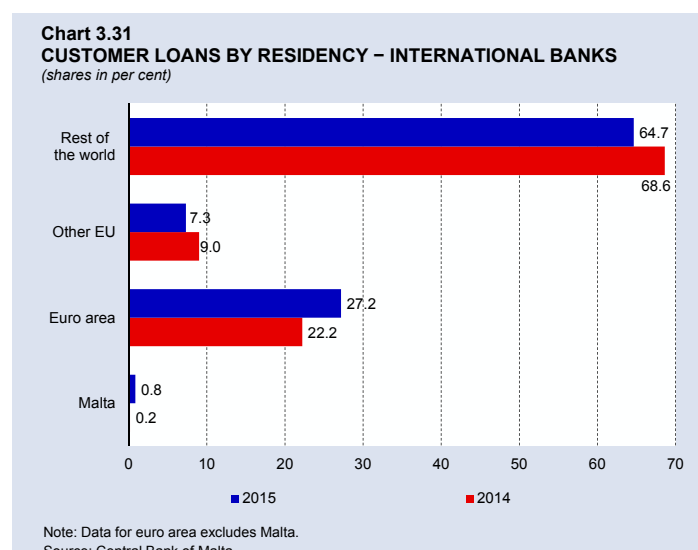
During the year, claims on other banks declined by almost a quarter mainly owing to lower intra-group placements (deposits). In turn, such claims in terms of total assets dropped by 1.6 percentage points to 32.2%.

Claims on the private sector (excluding banks) increased by 0.5% to €4.8 billion owing to increased equity investment, and by a lesser extent, due to higher bond holdings. This was partly offset by a drop in loans granted to non-resident private corporates. These changes pushed up the proportion of claims on the non-bank sector by 4 percentage points to 19.7% and were mainly affected by two branches. The two branches of non-EU banks do not hold securities issued in Malta or in countries mostly affected by the financial crisis.

The share of resident assets in total assets remained low at 1.6%, reflecting the very weak link of this group of banks with the domestic economy.

### 3.3.2 Asset quality

During the year, total customer loans which are predominantly directed to non-residents, dropped by 2.0% to €4.9 billion. This fall was mainly reported in loans channelled to countries outside the EU. In particular, lending to non-EU residents contracted by 7.6%, but continued to represent the bulk of customer lending, equivalent to 64.7% (see Chart 3.31). These changes mirror largely the operations of the two branches of non-EU banks, whose operations are largely targeted to their home country. Such loans



involved mainly the energy-related sector; public administration and defence; and the wholesale and retail trade sectors.

On the contrary, lending to euro area residents (excluding Malta) increased substantially by around one-fifth to €1.3 billion, accounting for over 27% of total customer loans of international banks. This rise reflects transactions conducted by a bank which engaged in lending to a non-bank financial institution in another euro area Member State. Resident customer loans remained low, and such lending continued to be minimal accounting for just 0.5% of total resident customer loans.

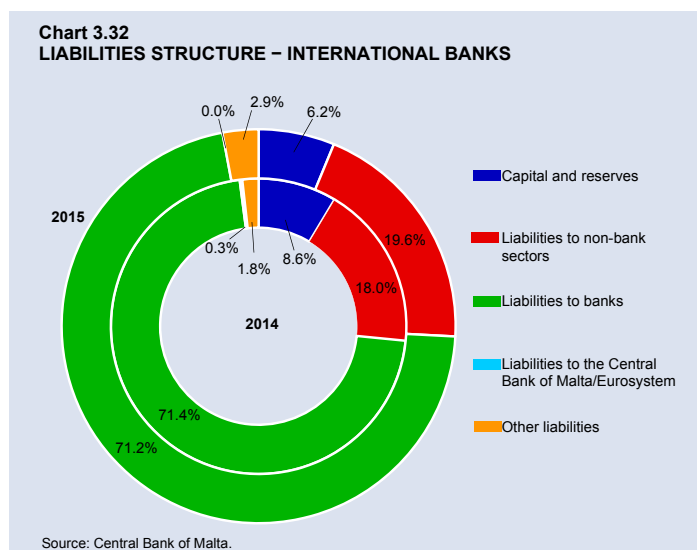
Excluding, the two branches of non-EU banks, total customer loans dropped by 9.2% to €2.4 billion. The drop emanated mainly from loans towards euro area residents, down by almost a third and represented around a quarter of total customer loans. Customer loans channelled to countries outside the EU still accounted for the majority of total customer loans, at around 58% as at end 2015.

At 0.9%, the NPL ratio of this group of banks remained low, despite increasing marginally from 0.7% a year earlier. The increase in the ratio was due to a contraction in the loans portfolio. However, international banks improved their loan loss provisioning as evidenced by the higher coverage ratio which reached 62.9%, up from 40.5% a year earlier. Compared to the previous year, international banks increased both their collective provisions and specific provisions.

### 3.3.3 Funding and liquidity

The funding strategy of international banks varies considerably, tapping into different sources of funding. Indeed, a significant number of banks access the wholesale market, while four institutions fund their operations mostly from the retail market, with only two banks tapping the resident retail deposit market. Funding from residents (in the form of deposits), tripled during the period under review, albeit still constituting just 0.5% of total resident deposits. This increase mainly emanated from higher resident private corporate deposits and resident household deposits to a lesser extent. Four banks rely on capital as their main source of funding. Such funding structure arises either due to the early stages of operations of a number of banks or due to the nature of the specific operations conducted by these banks, which require extensive capital coverage. Eight international banks are signatories to Directive 8 in terms of the Central Bank of Malta Act (CAP 204), making them eligible to tap Eurosystem funding.<sup>32</sup> However during 2015, only three banks made use of this facility, but no bank had any outstanding operations by the end of the year.

In aggregate, international banks continued to fund the majority of their operations from placements by non-resident banks, financing around 71% of their assets (see Chart 3.32). This financing, which is mainly, composed of funds from unrelated credit institutions, contracted by around one-fifth, owing to lower repo transactions conducted by the two branches of non-EU



<sup>32</sup> During the first quarter of 2016 the number of international banks signatories to Directive 8 increased to nine.

banks. Meanwhile, funding from related institutions increased by around 10%, in part due to the operations of two new banks.

International banks also rely on non-bank private sector funds. These financed slightly lower than a fifth of the total balance sheet value. In absolute terms, such funds decreased mainly owing to lower deposits from other financial intermediaries, investment funds and insurance companies.

Meanwhile, the consolidation in operations of an international bank, led to a fall in capital and reserves, which contracted by almost €1 billion, pushing down the proportion in total liabilities to 6.2% from 8.6% in 2014.

The liquidity position of international banks remained strong at 83.6%, down by 1.1 percentage points reported a year earlier, reflecting ample liquidity in line with their business model.<sup>33</sup> The overall LCR governed under the new CRR/CRD IV framework stood at 130.2%, exceeding the initial minimum regulatory requirement of 60%.

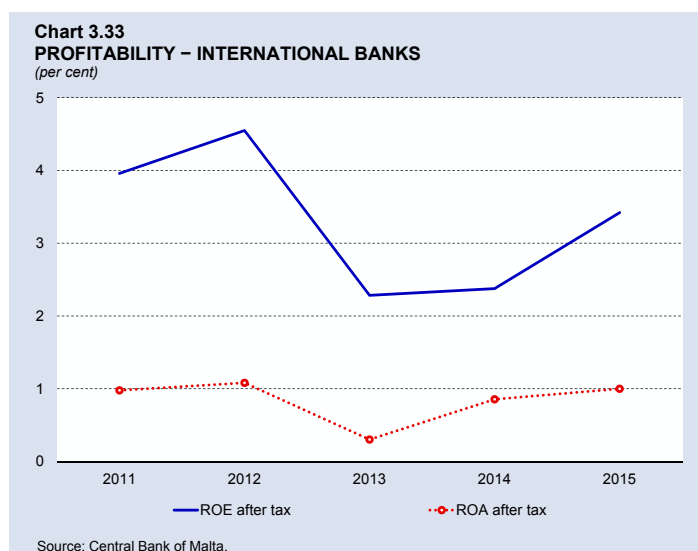
### 3.3.4 Profitability

During 2015, pre-tax profits of international banks improved by 10.7%, with most banks reporting positive profits, particularly the three branches. On aggregate, profits were derived from higher non-interest income and lower net impairment losses. Also, lower losses made on foreign exchange dealings and higher gains in fair value movements in financial assets also contributed to the improvement in profits. Should branches be excluded, profits before tax would fall by 27.7% compared with a year earlier, owing to the downsizing of operations of two banks.

The ROE (excluding branches) based on profits after tax stood at 3.4%, up from 2.4% in 2014. Similarly, the ROA (with profits after tax) increased by 0.1 of a percentage point to 1.0% (see Chart 3.33). Despite higher profits, efficiency weakened somewhat as indicated by the cost-to-income ratio, which increased by almost 13 percentage points to 24.6%, though around two-thirds of this increase was attributable to the inclusion of a new bank. The underlying weakening in efficiency resulted from lower net interest income and a simultaneous increase in non-interest expense. Despite this decrease in efficiency, the cost-to-income ratio remains relatively low, reflecting the business model of this category of banks which do not have a branch network and operate with relatively fewer staff.

### 3.3.5 Capital and leverage

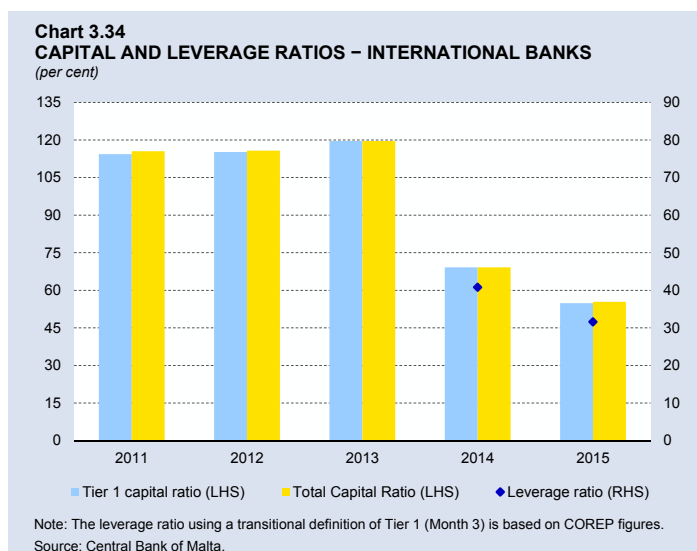
The capital position of international banks remained resilient despite the declining trend in capital ratios since 2013, albeit from very high levels, mainly due to a number of such banks which consolidated their position over the past two years. By end 2015,



<sup>33</sup> Based on BR06 set of returns the liquidity ratio is the ratio of liquid assets to short-term liabilities.



the Total Capital Ratio of international banks stood at 55.4%, down from 69.2% a year earlier, largely resulting from a reduction in large exposures which had necessitated a high capital allocation (see Chart 3.34). The leverage ratio (based on the transitional definition of Tier 1 capital) under the new regulatory framework dropped by 9 percentage points to 31.6%, owing to a contraction in Tier 1 capital. Based on a more simple measure of leverage, defined as the proportion of capital to assets, the ratio stood at 50.8%, down from 59.9% in the previous year.



## 4. DOMESTIC INSURANCE COMPANIES AND INVESTMENT FUNDS

### 4.1 Domestic insurance companies

The nature of the insurance business, which deals with the underwriting of a diversified pool of risks, includes inherent mechanisms which limit the likelihood of systemic risk. Risks to financial stability arising from the domestic insurance sector are further contained given the stable nature of their liabilities, the low leverage, and the extensive reliance on premia as a funding source, which is then channelled into prudent investment strategies. Risks arising from the undertaking of non-traditional non-insurance (NTNI) activities are limited, as evidenced by the negligible amount of loans granted by domestic insurers. However, despite relatively small in size, the domestic insurance sector is interlinked with other economic sectors, including households, corporates, banks and the Government, reflecting a potential channel of contagion risk, in case of distress. Risks relating to the insurance sector remained contained, without significant developments throughout 2015.

As at December 2015, the 63 insurance and reinsurance companies operating from Malta managed a balance sheet size of €13.7 billion, up from €12.7 billion in 2014. A large number of insurance companies located in Malta operate internationally, with only eight insurance companies considered to be domestically-relevant for financial stability purposes, given that their operations are considered to have possible implications on the rest of the financial system and the domestic economy as a whole. As at the end of 2015, these eight insurers held €3.9 billion in assets, representing 44.7% of GDP.<sup>1</sup> These insurers will be considered in the analysis of this Report and comprise three life insurance principals, four non-life insurance principals and one non-life Protected Cell Company (PCC), hereafter referred to as ‘domestic insurance companies’.<sup>2</sup> Insurance density of domestic insurers stood at around €1,063.2 (€859.4 in 2014) while insurance penetration reached 5.1% in December 2015 (4.5% as at December 2014).<sup>3</sup>

Insurance cover is an important component of household and corporate balance sheets, as it provides a risk buffer to their financial wealth, and may also act as a financial instrument. As at end 2015, insurance policies represented 13.9% (€2.4 billion) of households’ financial wealth and 0.4% (€77 million) of the assets of non-financial corporations (NFC).<sup>4</sup>

Involvement of the domestic insurance industry in NTNI activities remained minimal. Loans granted by two life and one non-life insurance companies to households and NFCs amounted to €12.6 million during 2015, increasing by 1.7% over 2014. These account for only 0.3% of the insurance industry’s total assets and 0.1% of the total loan portfolio of the core domestic banks.

A prolonged low interest rate environment could pose profitability risks for the insurance sector, especially for the life sector. This is because a prolonged low interest rate environment could induce insurance companies to alter their portfolio allocation towards riskier assets in search of higher returns. While there is no evidence of such behaviour during 2015, search for yield could make insurance companies more vulnerable to adverse market developments, especially given that in traditional insurance companies, investment holdings represent the bulk of their assets.

#### 4.1.1 The domestic life insurance sector

The domestic life insurance sector, which is composed of three insurance companies, held €3.6 billion in assets, registering an increase of 5.7% over 2014. As observed in previous years, this sector remained

<sup>1</sup> In the previous editions of the *Financial Stability Report*, nine domestic insurance companies were analysed. However, with effect from July 2015, Allcare Insurance Limited ceased to conduct general business of insurance in or from Malta as it was sold to MAPFRE Middlesea Plc.

<sup>2</sup> A protected cell company is a single legal entity comprising a core business activity and a number of activities, which are segregated from the main business, called “cells”. The undertakings of one cell have no bearing on the other cells, with each cell identified by a unique name. The assets, liabilities and activities of each cell are also ring-fenced from other cells.

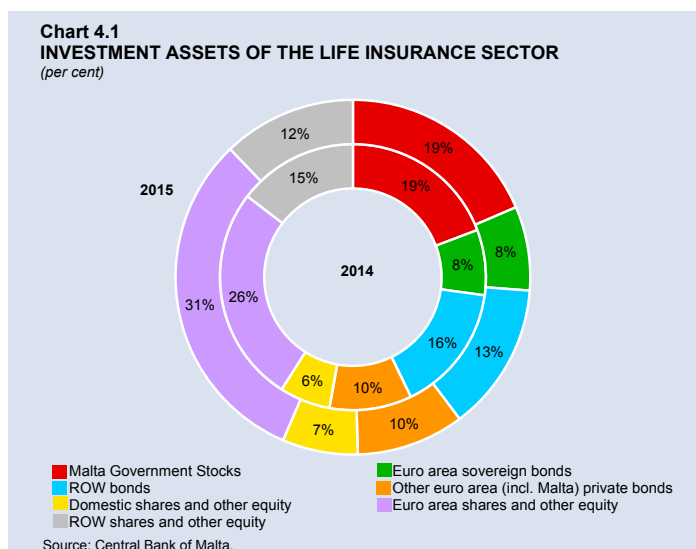
<sup>3</sup> Insurance density is measured as gross premia per capita while insurance penetration is calculated as gross premia over GDP. For the calculation of these two ratios, gross premia relate only to those written by the domestic insurance companies. Population estimates are based on the 2014 and 2015 data and sourced from Eurostat.

<sup>4</sup> The policies considered refer to all insurance policy holdings, and not only those provided by the domestic insurance sector. Data for the insurance holdings in relation to the assets of non-financial corporations is as at June 2015.

dominated by two firms, which are subsidiaries of two core domestic banks, together accounting for 97.2% of the assets of the life sector, and for 96.8% of the gross premia written by the sector.

### Asset quality

The bulk (78.8%) of the life insurers' total assets consisted of investment holdings, expanding by 6.2% during the year to stand at €2.8 billion.<sup>5</sup> The structure of the investment portfolio of the life insurance sector remained broadly stable over the previous year, despite some shifts between equity and bonds (see Chart 4.1).



By the end of 2015, the share of equities and mutual fund shares in the total investment portfolio stood at 50.4% (€1.4 billion), rising by over 3 percentage points over 2014. Such portfolio is mainly composed of equity issued by other financial intermediaries (OFI) in Germany and France. The expansion in equity holdings reflected higher holdings issued in the euro area by OFIs, namely in Luxembourg and Ireland.<sup>6</sup> Holdings of domestic equity issued by non-financial corporates also increased, although by a lesser extent. On the other hand, holdings of equity issued outside the euro area, mainly in the Cayman Islands, United States and Guernsey declined.

As at December 2015, bonds accounted for just under half (€1.4 billion) of the total investment portfolio, with the majority of bond holdings (52.9%) relating to sovereign debt issued in Malta, Germany, Italy and France. The remaining bond portfolio comprised bonds issued by OFIs, mainly from the United States, France and Germany. The bond portfolio contracted by 0.4% during 2015, mainly driven by lower holdings of bonds issued in Turkey, Brazil, Canada and by the European Investment Bank. The decrease was partly offset by higher holdings of Malta Government Stocks (MGS) and other euro-area sovereign bonds issued in France and Germany. However, from a geographical perspective, the main holdings remained concentrated in Malta and in highly-rated European countries, namely France, Germany, and the Netherlands.

Although domestic life insurers reported a slight shift in their investment portfolio, from bonds to equities, this reflected a shift towards equities in higher-rated countries, thus maintaining the credit quality of the investment portfolio.

### Profitability

Despite the challenging low yield environment, domestic life insurance companies recorded profits before tax of €29.2 million, an increase of 15.0% over 2014 (see Chart 4.2). The increase in profits is attributable to improved underwriting business, as higher net premia written more than offset the 13.0% increase in net claims. The latter mostly related to policy maturities. Meanwhile, profits from investment activities dropped by 20.0%, mainly driven by lower unrealised capital gains.<sup>7</sup>

Consequently, the ROE (after tax) for the life insurance sector stood at 8.2% in December 2015, up from 7.6% in 2014. On the other hand, given a faster expansion in average assets than profits, the ROA (after tax) dropped to 0.6% as at end 2015 from 0.7% in 2014. These ratios stand broadly in line with those of

<sup>5</sup> Investment holdings include fixed income securities, financial derivatives, shares, equity and mutual fund shares. Two life insurance companies hold a minimal amount of financial derivatives.

<sup>6</sup> OFIs sector consists of all financial corporations and quasi-corporations which are principally engaged in financial intermediation by incurring liabilities in forms other than currency, deposits, or investment fund shares, or in relation to insurance, pension and standardised guarantee schemes from institutional units (Source: ESA 2010).

<sup>7</sup> Profit from investment activities captures investment income and expenses, exchange gains and unrealised capital gains.

other European insurance companies. Specifically, the ROE for the median EU insurer stood at 8.5% in December 2015, while the median ROA was 0.4% in June 2015.<sup>8</sup> The risk retention ratio, defined as the proportion of risk that is retained on the books of the insurance companies, declined by 0.8 percentage points to 95.4%, over December 2014.<sup>9</sup> This compares relatively well with the median risk retention ratio of insurance companies in the EU which stood at 92.3%.<sup>10</sup>

### Funding and liquidity

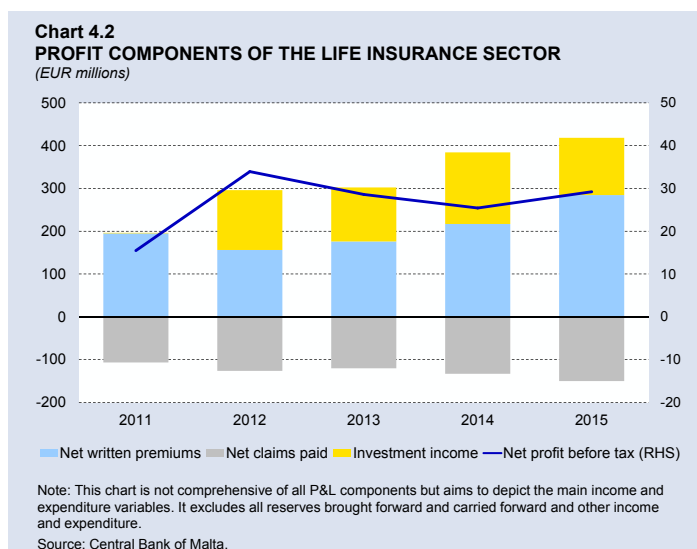
Although insurers may in theory suffer liquidity risk in case of mass lapses and surrenders, funding risk

is generally limited given the liability structure of insurance companies. Life insurers predominantly fund themselves through periodic premia from policy holders, indicating a sustained inflow of funds. Indeed, the technical reserves against outstanding risks in respect of life insurance policies amounted to €3.2 billion as at the end of 2015, forming 90.1% of total liabilities. At €2.3 billion or 71.0%, the majority of the technical reserves relate to policies held by resident households. The rest relate to policies held by euro area households and other policy holders outside the euro area. The majority (€2.4 billion) of the technical reserves are not unit-linked, indicating that the total amount of the premium paid against most of the policies is utilised entirely to provide insurance cover to policy holders.<sup>11</sup>

Moreover, during 2015, liquid assets in comparison to current liabilities increased. This is evidenced by the maturity mismatch ratio, which stood at -8.3% in 2015, down from -7.4% in 2014, on account of higher liquid assets and a decrease in current liabilities. The current ratio, which continued to increase during the year, stood at 20.6 in December 2015, up from 15.7 in December 2014.<sup>12</sup>

### Capital and leverage

During the year, the capital base of life insurers expanded further, up by 6.1% over 2014. The proportional increase in capital and assets resulted in a stable leverage ratio of 7.2%. The introduction of Solvency II in January 2016 is expected to enhance further the resilience of the insurance sector to adverse developments. This is due to the fact that the new solvency regime is more risk-based; requiring insurance companies to meet the Solvency Capital Requirement (SCR). The SCR is the capital required for insurers to meet their obligations over the next twelve months with a probability of at least 99.5% (see Box 4). In addition to the SCR, a Minimum Capital Requirement (MCR) represents the threshold below which the national supervisor would intervene.<sup>13</sup>



<sup>8</sup> The ROE is sourced from the ECB's Statistical Data Warehouse, while the ROA is sourced from EIOPA's December 2015 *Financial Stability Report*. The ROE is reported for the median insurer among a sample of both life and non-life insurers.

<sup>9</sup> The risk retention ratio is defined as net premia on gross premia.

<sup>10</sup> Source: ECB's Statistical Data Warehouse.

<sup>11</sup> This contrasts with unit-linked policies, whereby part of the premium paid is utilised to provide insurance cover to the policy holder, while the rest is invested on behalf of the policyholder.

<sup>12</sup> The liquidity mismatch ratio is measured as current liabilities less liquid assets on total assets. A negative liquidity mismatch ratio implies that more liquid assets are available to cover current liabilities. The current ratio, measured as liquid assets on current liabilities, shows the ability of the company to pay both its short-term and long-term obligations. The higher the current ratio, the more able the company is of paying its obligations, as it has a larger proportion of asset value relative to the value of its liabilities.

<sup>13</sup> The MCR is intended to correspond to an 85% probability of adequacy over a one year period and is bounded between 25% and 45% of the SCR.

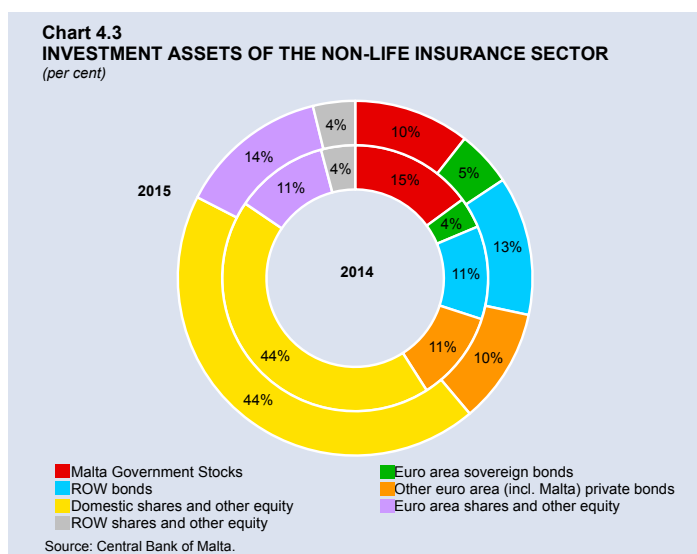
### 4.1.2 The domestic non-life insurance sector

Five domestic insurance companies constitute the domestic non-life insurance sector. With assets amounting to €351.9 million, the sector accounted for only 8.9% of the total domestic insurance sector in 2015. One of these insurance companies is a subsidiary of a core domestic bank and has a shareholding in a domestic life insurance company.

#### Asset quality

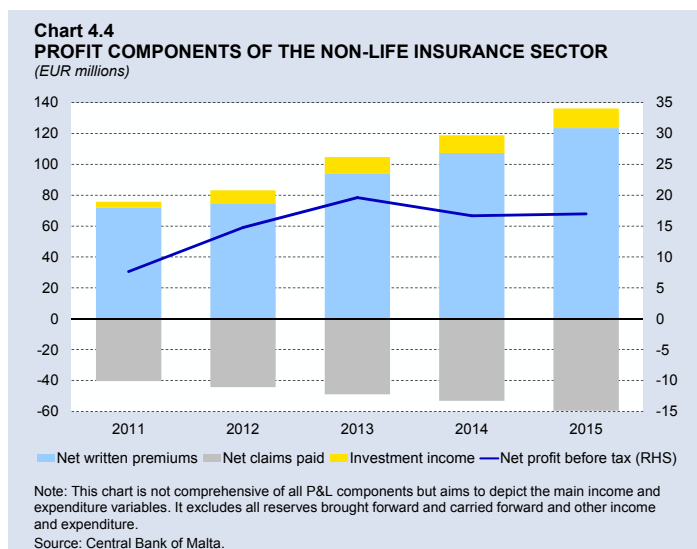
The investment portfolio of the non-life insurance sector amounted to €160.2 million as at December 2015, expanding by 1.6% over 2014. The structure remained similar to the previous year. Although the holdings of equity is predominant (see Chart 4.3), such investment, however, mainly reflects the shareholding in one domestic life insurance company, accounting for almost two-thirds of total equities held by the non-life sector.

During the year, holdings of domestic equity increased by 2.3% mainly from NFCs and OFIs. Additionally, the non-life insurance sector increased their investment in equity issued by NFCs from Germany. In the meantime, the bond portfolio contracted by almost 4% predominantly due to the shedding of MGS by one insurance company in a bid to capitalise investment returns. On the other hand, the holdings of bonds issued by euro area sovereigns, mainly Spain, and bonds issued in the United States increased.



#### Profitability

In 2015, the non-life insurance companies reported profits before tax of €17.0 million, representing an increase of 1.9% over 2014 (see Chart 4.4). The improvement in profits was driven by sound underwriting business as well as an increase in return from investment activities. Net premia improved by 14.9%, at a faster rate than claims paid, up by 12.1% in 2015. Favourable returns are also confirmed by the combined ratio which stood at 87.4%, below the 100% threshold.<sup>14</sup> During the year, the ROA and ROE (after tax) remained relatively stable, at 3.6%



<sup>14</sup> The combined ratio is measured as the sum of net claims incurred and the net operating expenses as a proportion of net earned premia. A combined ratio of less than 100% portrays underwriting profit as insurers are taking in more premia than paying out in claims and other expenses.

and 8.7%, respectively. The risk retention ratio increased by 2.2 percentage points to 79.6%, reflecting a lower proportion of risk being reinsured.

### *Funding and liquidity*

As at the end of 2015, technical reserves, which are funds put aside for future claims, amounted to €174.4 million, equivalent to almost half of the balance sheet size. Resident households' premium contributions accounted for the majority of such funds, amounting to €96.5 million. Most of these policies are not unit-linked. The rest of the technical reserves relate to policies issued to resident non-financial corporates and to policy holders outside the euro area. Another 40.9% (€143.9 million) of the insurers' balance sheet is funded through shareholder equity and, to a lesser extent, the issuance of equity on the MSE.

The liquidity mismatch ratio stood at -16.6% as at end 2015 compared to -14.6% in 2014. Given that liquid assets grew at a faster pace than current liabilities, the current ratio increased to 3.8 in December 2015, from 3.5 in 2014.

### *Capital and leverage*

The capital of the non-life insurance sector expanded further during the year, reaching €143.9 million as at the end of 2015, up from €139.1 million (by 3.5%) in 2014. However, given a faster increase in assets, the leverage ratio (capital/assets) dropped to 40.9%, from 42.3% in 2014. Solvency II implementation is expected to further enhance the non-life insurers' absorbency capacity.

## **BOX 4: THE SOLVENCY II DIRECTIVE (2009/138/EC) AND EIOPA STRESS TESTS**

### **The Solvency II Directive**

The Solvency II Directive (2009/138/EC) (SII) came into force in January 2016, regulating all insurance and reinsurance companies operating in the EU, with gross premium income exceeding €5 million or gross technical provisions in excess of €25 million. SII was initially drafted and agreed in 2009 through Directive 2009/138/EC and amended in 2014 by the Omnibus II Directive (2014/51/EU).<sup>1,2</sup> The new framework replaces the Solvency I Directive introduced in the 1970s.

The implementation of this Directive seeks to reinforce the European regulatory framework with the aim to increase policyholder protection and consumer confidence in insurance products, further aiding in promoting financial stability. SII is more risk-sensitive than the preceding regime and entails greater disclosure requirements, focusing on the risk profile of the individual insurance company, while creating a level playing field, promoting comparability, transparency and competitiveness among the insurance business across the EU.

The SII framework is based on three pillars, covering quantitative capital requirements (Pillar 1), a qualitative supervisory review process (Pillar 2) and disclosure requirements (Pillar 3) (see Table 1):

<sup>1</sup> Directive 2009/138/EC of the European Parliament and of the Council, of 25 November 2009, on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II).

<sup>2</sup> Omnibus II amends the Solvency II Framework Directive, bringing it in line with the EU's Lisbon Treaty (2009) and takes into account the EU's new supervisory structure which established the European Insurance and Occupational Pensions Authority (EIOPA).

**Table 1**  
**THE THREE-PILLAR APPROACH UNDER SOLVENCY II**

PILLAR I	PILLAR II	PILLAR III
<b>Quantitative capital requirements</b>	<b>Qualitative supervisory review process</b>	<b>Disclosures</b>
Valuation of assets and liabilities Technical provisions	Risk management and governance	Reporting to supervisory authorities
Calculation of capital requirements: - Minimum Capital Requirement (MCR) - Solvency Capital Requirement (SCR)	Forward Looking Assessment of Own Risk (FLAOR)	Disclosure to the public
Identification of eligible own funds to cover these requirements	Supervisory review, including capital add-ons	Market discipline

**Pillar I** covers quantitative requirements with the aim of ensuring that firms are adequately capitalised with risk-based capital. This Pillar provides the rules for the estimation of assets and liabilities, including technical provisions used in the calculation of capital requirements. Insurance companies may use either the Standard Formula approach or an Internal Model approach, following approval of the supervisory authority. This Pillar also identifies the quantity and quality of capital used to meet the regulatory requirements and introduces two risk-sensitive capital requirements for unexpected losses: the Solvency Capital Requirement (SCR) and the Minimum Capital Requirement (MCR).

The SCR reflects the amount of capital required to meet all obligations over one year, taking into account all significant quantifiable risks such as underwriting risk, risk pricing, provisional risk, market risk, credit risk, liquidity risk and operational risk.<sup>3</sup> The MCR is the minimum level of security below which the capital of an insurance firm should not fall.<sup>4</sup> Both measures adopt a 'ladder approach' to regulatory intervention. Specifically, violation of the SCR requires an increase in regulatory action (possibly through higher capital requirements) while a breach of the MCR may lead to the removal of the insurer's operating licence.

**Pillar II** sets higher standards for risk management and governance within insurance firms, giving supervisors greater powers to challenge these firms on risk management issues. It also includes the Forward Looking Assessment of Own Risk (FLAOR) (previously known as Own Risk and Solvency Assessment (ORSA)), requiring insurance companies to undertake their own forward-looking self-assessment of their risks, corresponding capital requirements, and adequacy of capital resources. The FLAOR can be carried out many times during the year, however, due to the high costs; most firms will undertake this assessment once a year.

**Pillar III** aims for greater levels of transparency, by addressing disclosure requirements both for the public and the supervisors, thereby enhancing market discipline and increasing comparability. This

<sup>3</sup> The SCR is measured at a 99.5% VaR confidence level.

<sup>4</sup> The MCR is measured at the 85.0% VaR confidence level.

includes the submission of an annual private report to the supervisor (Regular Supervisor Report) and a public Solvency and Financial Condition Report (SFCR), also containing key quantitative information.

Another major reform within Solvency II is the removal of the prevailing restrictions in the investment portfolios for insurance companies. Instead, it introduces the 'prudent person principle' whereby insurers shall only invest in assets whose risks can be properly identified, measured, monitored, managed, controlled and reported.

From an asset-liability management perspective, the new regime encourages insurers to match their cash-flows with the long-term guarantees offered through long-term assets available in the market. In this way, insurers would be less reliant on short-term price movements in their asset portfolio. The Long-Term Guarantees (LTG) package, introduced by Omnibus II, establishes a set of measures aimed at reducing the impact of 'artificial volatility' and ensures the long-term protection of policy holders.<sup>5</sup>

During the preparatory phase for the implementation of Solvency II, the Malta Financial Services Authority (MFSA) had assessed the level of preparedness of insurance undertakings through the submission of the Preparatory Quantitative Reporting Templates (QRT), supporting narrative documentation and the FLAOR reports. The preparedness of the undertakings varied across the insurance market, but significant improvement was observed over the two-year preparatory phase.

Insurance and reinsurance undertakings will start submitting quarterly quantitative and qualitative information, under the umbrella of Solvency II, to both the MFSA and the Central Bank of Malta from May 2016.<sup>6</sup>

### EIOPA stress tests

To gauge the resilience of the EU insurance sector to risks and vulnerabilities, and as a measure of potential systemic risk, the European Insurance and Occupational Insurance Authority (EIOPA) launched a European-wide stress test for the insurance sector in 2014.<sup>7</sup> The exercise consisted of two independent modules: the Core Stress Module and the Low Yield Module.<sup>8</sup> The Solvency II regulatory regime provided the technical basis for both modules.

The results of the baseline scenario showed that the EU insurance sector was generally adequately capitalised in terms of Solvency II. However, 14% of insurance companies did not meet the SCR threshold, while a smaller subset (8%) indicated that they would not meet the MCR. Only 56% of insurance companies would have sufficient levels of capital to meet the SCR under the most severe 'double hit' stress scenario.<sup>9</sup> Furthermore, 24% of the insurance companies would not meet the SCR under the 'Japanese-like Scenario', while 20% of companies would not meet the threshold in the 'Inverse Scenario'.<sup>10</sup>

<sup>5</sup> 'Artificial volatility' refers to the volatility in technical provisions, capital resources and capital requirements, but does not reflect changes in the financial position or risk exposure of the insurers.

<sup>6</sup> Moreover, these institutions shall also submit other quarterly and annual data which is not included in the Solvency II data pack, as required by the Central Bank of Malta and the MFSA.

<sup>7</sup> Source: EIOPA.

<sup>8</sup> The Core Stress Module was composed of three scenarios: i) Scenario CA1: an asset market shock originating in the EU equity market, ii) Scenario CA2: an asset market shock originating in the non-financial corporate bond market and iii) an insurance-specific stress scenario. The Low Yield Module involved bottom-up stress test calculations performed at a company level focusing specifically on the impact of low interest rates.

<sup>9</sup> A 'double hit' stress scenario (part of the Core Stress Module) combines decreases in asset values with a lower risk-free rate.

<sup>10</sup> The 'Japanese-like Scenario' relates to a persistent low interest rate environment and the 'Inverse Scenario' includes an abnormal change in the shape of the yield curve.



Nine insurance companies operating in Malta participated in the EIOPA stress test. All of them participated in the Core Stress Module and only four participated in the Low Yield Module.<sup>11</sup> National Competent Authorities were prohibited by EIOPA from publicly disclosing individual participants' results, since the Solvency II specification that was used for the stress test was not the final specification which was implemented in 2016. Hence, publishing such results would have resulted in misleading market information as the Solvency II framework was still in the process of implementation and not yet finalised.<sup>12</sup>

In 2016, EIOPA launched another stress test to analyse the vulnerabilities of the EU insurance sector to adverse market risk scenarios in a persistently low interest rate environment and identify issues that require further supervisory response. The EIOPA exercise is planned to cover those firms most vulnerable to these types of stress. It will be based on a sample of solo insurance companies and is expected to cover at least 50% of the insurance market in each country both for the life and non-life sectors. Solvency II will again provide the technical basis for the stress test, with its specification now being completed and is in its implementation phase.

Specifically, the stress test comprises of two modules:

1. **The Core Module:** this includes two adverse market scenarios, covering financial asset stresses (sovereigns, corporate bonds and equities) as well as shocks to real estate asset prices and interest rates. The adverse market scenarios are complemented by a set of independent insurance-specific shocks covering mortality, longevity, insufficient reserves and catastrophe shocks.
2. **The Low Yield Module:** this addresses the impact of a low yield environment and is a follow-up to EIOPA's Opinion on Supervisory Response to a Prolonged Low Interest Rate Environment.<sup>13</sup>

The adverse market scenarios have been developed in cooperation with the European Systemic Risk Board (ESRB).

The EIOPA's timeline for the stress tests include the following key dates:

- May 2016: Launch of the stress test
- July 2016: Submission deadline for participants to their respective National Competent Authorities
- December 2016: Publication of results by EIOPA

Two domestic life insurance undertakings will participate in the 2016 stress test.

<sup>11</sup> National supervisors had the discretion to eliminate those firms in the sample where exposure to interest rate risk was not material.

<sup>12</sup> Source: MFSA Newsletter December 2014: [http://mfsa.com.mt/files/publications/Newsletter/2014/2014\\_December\\_244.pdf](http://mfsa.com.mt/files/publications/Newsletter/2014/2014_December_244.pdf)  
EIOPA: <https://eiopa.europa.eu/Publications/Surveys/EIOPA%20-%20Cover%20-%20Specification%20of%20the%20low-yield%20stress%20test%20scenario.pdf>.

<sup>13</sup> Source: [https://eiopa.europa.eu/Publications/Opinions/EIOPA\\_Opinion\\_on\\_a\\_prolonged\\_low\\_interest\\_rate\\_environment.pdf](https://eiopa.europa.eu/Publications/Opinions/EIOPA_Opinion_on_a_prolonged_low_interest_rate_environment.pdf).

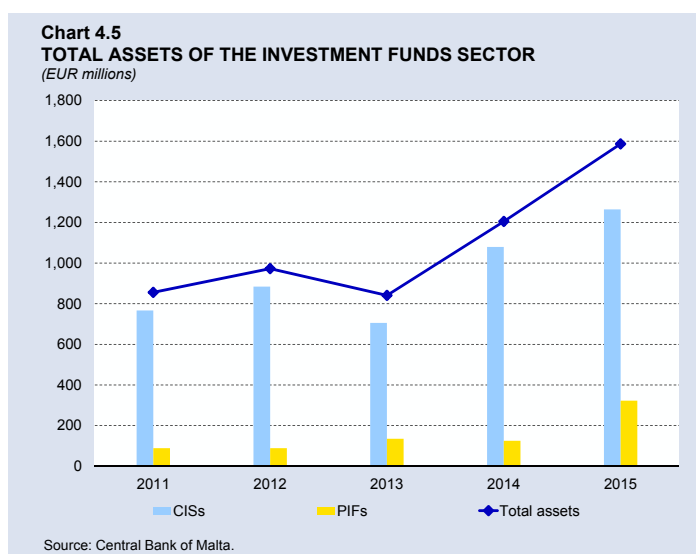
## 4.2 Investment funds

The domestically-oriented investment funds sector is a growing industry, with the main financial stability risks being the links with the domestic banking sector and the economy, through ownership and investment.

As at December 2015, total assets of the investment funds sector amounted to €9.6 billion, comprising 36 Collective Investment Schemes (CIS) and 235 Professional Investment Funds (PIF). Of these, six CIS and five PIF can be classified as domestic from a financial stability standpoint, given their ties with the Maltese economy.<sup>15</sup>

These domestic investment funds manage assets amounting to €1.6

billion, up from €1.2 billion in 2014, representing 18.0% of GDP (see Chart 4.5). Both PIF and CIS expanded their balance sheet during the year. Specifically, CIS reported an expansion of 17.1% (€184.7 million) in their assets to €1.3 billion, while PIF assets increased by 157.2% (€197.2million) to €322.8 million.



The growth in CIS assets was driven by an expansion in their core business, with investment assets standing at €1.2 billion as at the end of 2015, representing a 13.5% increase over the previous year. The structure of the investment portfolio remained stable during the year, with over 80% of investment holdings consisting of bonds. As at the end of 2015, bond holdings amounted to €948.3 million. MGS constituted the majority (57.3%) of such holdings. These increased during the year and were the main driver behind the 12.4% rise in the bond portfolio. Additionally, higher investments in bonds issued by domestic captives and money lenders; and banks were also recorded. Holdings of euro area bonds (excluding Malta) increased by 6.6% during the year, largely reflecting higher holdings of private sector bonds of firms operating in France and the Netherlands. Holdings of bonds issued outside the euro area also increased, mainly from the United Kingdom and the United States.

Equity, which accounted for 17.8% of the CIS investment portfolio, amounted to €205.7 million in 2015, up by 18.7% during the year. While equity holdings predominantly comprise equity issued by domestic NFCs (€66.2 million) and banks (€45.1 million) operating in Malta, the expansion reported during the year was driven by shares issued by domestic OFIs.

During 2015, the expansion in the total assets of PIF was predominantly driven by an increase in loan claims. This change was on account of one PIF which bought the traded loans of a non-core domestic bank. Despite this increase, investment holdings still represent the bulk of PIF total assets, equivalent to almost 53%. Domestic PIF predominantly invest in equity, which indeed accounted for 95.6% of their investment portfolio in 2015 (see Chart 4.6). Almost all equity holdings related to equity issued domestically, mainly by investment funds and banks.<sup>16</sup> During the year, equity holdings expanded by 34.7%, mainly on account of higher holdings of domestic equity issued by such investment funds. On the other hand, holdings of equity issued by euro area investment funds from Luxembourg and equity issued from the United Kingdom and the United States decreased.

<sup>15</sup> The amount of investment funds being classified as domestically relevant has remained stable during the year.

<sup>16</sup> These investment funds exclude money market funds.

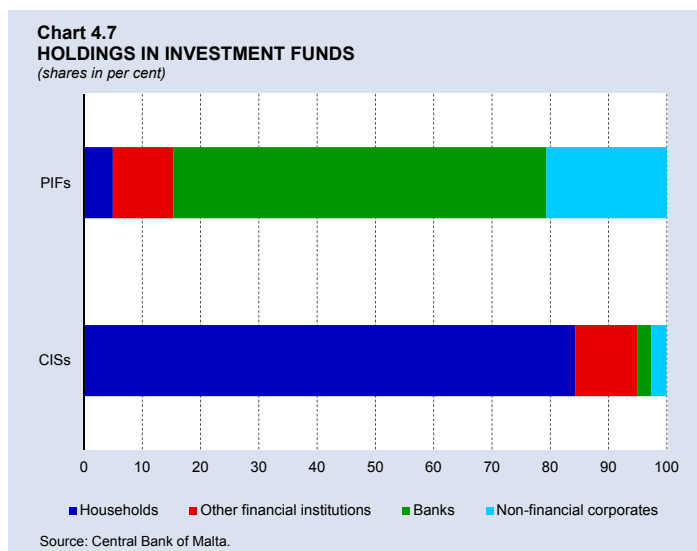
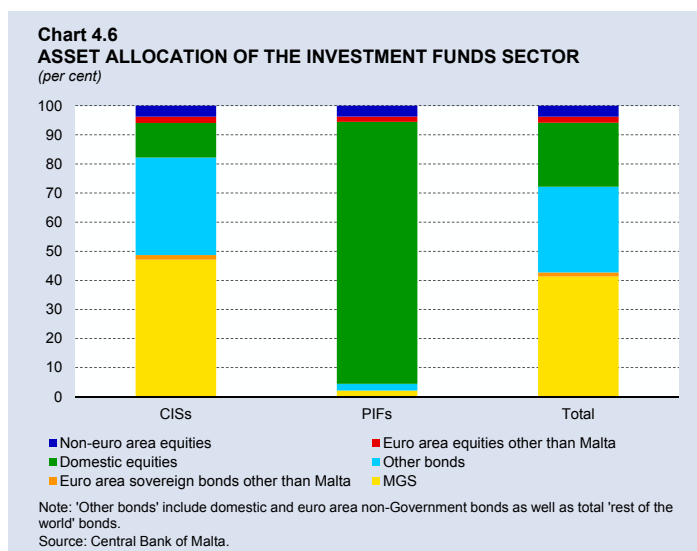
The rest of the investment portfolio, that is 4.4% of total investments, related to bond holdings, which as at December 2015 stood at €7.5 million, representing an increase of €4.3 million over the previous year. The expansion of the bond portfolio reflects higher holdings of MGS and bonds issued by countries outside the euro area.

During 2015, the domestic CIS sector reported losses before tax of €4.6 million, down from €10.2 million profits in 2014.<sup>17</sup> However, this development was due to capital and exchange rate losses, as otherwise, interest income from investments increased by 19.2% to €11.9

million and expenses remained relatively stable.<sup>18</sup> Similarly, PIF also registered minor losses of €0.1 million, down from €4.7 million profits in 2014. This was also due to a drop in income arising from lower capital and exchange rate gains. Interest income from investments and expenses remained stable.

In the case of CIS, households remained the main shareholders, given the retail nature of the CIS (see Chart 4.7). From the households' perspective, investment in CIS accounts for 6.1% of households' net financial wealth. On the other hand, given the much higher entry level associated with PIF, major investors include financial institutions and non-financial corporations.

The domestic investment funds are inherently linked to the core domestic banks given that the latter manage 84.3% of their net asset value. Despite these links, spill-over risks and contagion implications are minimal given the relatively small size of the domestic investment funds sector – equivalent to just 3.4% of the banking sector's assets or 7.7% of the core domestic banks' assets. Investment funds across the world are increasingly acting as an alternative funding channel for economic growth compared to traditional bank lending, by taking on credit intermediation activities. However, the extent of such activities among the domestic investment industry remained limited, as they continue to pursue traditional investment activities.



<sup>17</sup> Profits are based on the sub-funds having an asset size of more than €5.6 million. The smaller funds do not submit Profit and Loss data.  
<sup>18</sup> Interest income from investments includes interest on deposits, securities other than shares, and loans, and also amortised interest and discounted Treasury bills.

## 5. MACRO-PRUDENTIAL POLICY MEASURES

The Central Bank of Malta is, at law, the authority to issue, amend or revoke directives in order to implement macro-prudential policies. Directive 11 of the Central Bank of Malta Act regulates the current domestic macro prudential framework, which also transposes the relevant Articles of the Capital Requirements Regulation and Directive (CRR/CRD IV). Since 2013 the Joint Financial Stability Board (JFSB) has been established between the Malta Financial Services Authority (MFSA) and the Bank with the main aim to provide advice on issues related to financial stability and to formulate policy recommendations designed to safeguard the stability of the financial system. In addition, under Article 5 of the Single Supervisory Mechanism (SSM) Regulation, the SSM has the authority to influence domestic macro-prudential policies through the application of higher requirements for capital buffers than those applied by national authorities.<sup>1</sup> Therefore, in establishing its macro-prudential policy stance, the Bank coordinates at the domestic level through the JFSB, and at EU level with the European Central Bank (ECB), SSM, and European Systemic Risk Board (ESRB), the latter being the authority responsible for the macro-prudential oversight of the financial system in the EU.

### ESRB recommendations of 2015

The ESRB issues risk warnings and recommendations addressed to the national and European institutions in line with the ESRB Regulation.<sup>2</sup> The main goal is to promote macro-prudential supervision of the Union's financial system and thereby ensure a sustainable contribution of the financial sector to economic growth. In 2015 the ESRB published two recommendations, one about third country countercyclical buffer rates and another on voluntary reciprocity of macro-prudential policy measures, both of which are relevant for the domestic regulatory framework.<sup>3,4</sup>

#### *(ESRB/2015/1) Recognizing and setting countercyclical buffer rates for exposures to third countries*

Article 138 of the CRD IV mandates the ESRB to issue a recommendation to designated authorities on the appropriate countercyclical capital buffer rate for exposures to third countries. The CRD IV requires the ESRB to publish a recommendation for the following areas where:

- a countercyclical capital buffer rate has not been set and published by the relevant third-country authority for a third country to which one or more Union institutions have credit exposures;
- the ESRB considers that a countercyclical capital buffer rate which has been set and published by the relevant third-country authority for a third country is not sufficient to protect Union institutions appropriately from the risks of excessive credit growth in that country, or a designated authority notifies the ESRB that it considers that buffer rate to be insufficient for that purpose.<sup>5</sup>

Domestic authorities have the power to recognise a third country buffer rate for the purposes of the calculation by institutions of their institution-specific countercyclical buffer (CCyB) rate as per Banking Rule 15/2015 as well as Directive 11.<sup>6</sup> This means that domestic banks which have exposures to countries outside the European Union (EU) might have to set higher capital requirements for those exposures. The rate will not be based solely on the relevant third-country authority's assessment but can be set differently, following coordination with the ESRB. This ensures that credit institutions build resilience towards risk exposures to third

<sup>1</sup> COUNCIL REGULATION (EU) No 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions.

<sup>2</sup> Regulation (EU) No 1092/2010 of the European Parliament and of the Council of 24/11/2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board.

<sup>3</sup> Recommendation on recognising and setting countercyclical buffer rates for exposures to third countries (ESRB/2015/1).

<sup>4</sup> Recommendation on the assessment of cross-border effects of and voluntary reciprocity for macro-prudential policy measures (ESRB/2015/2).

<sup>5</sup> ESRB/2015/1 defines 'third country' as any jurisdiction outside the European Economic Area.

<sup>6</sup> BR/15/2015 Capital Buffers of Credit Institutions Authorised Under the Banking Act 1994.

countries. Additionally, banks' resilience to the risks emanating from the third country could be enhanced as the ESRB may set a higher CCyB rate than that set in a third country.

### *(ESRB/2015/2) Assessment of cross-border effects of, and voluntary reciprocity for macro-prudential policy measures*

This Recommendation aims to mitigate regulatory arbitrage which could undermine the effectiveness of national macro-prudential policy measures. Against this background and to ensure the effectiveness and consistency of macro-prudential policy, policy makers are encouraged to give due consideration to such cross-border effects and, when warranted, deploy suitable policy instruments.

Under EU law, mandatory recognition is limited to a few cases, such as Article 124 and 164 of the CRR on immovable property and CRD IV Article 137 on the countercyclical capital buffer, where it is set at a level of up to 2.5%.<sup>7,8</sup> For the other macro-prudential measures, recognition is either voluntary or unspecified.<sup>9</sup> Given its mandate, the ESRB deems that where macro-prudential measures target risk exposures in a country, they should ideally be reciprocated, even if not mandatorily required by the CRR/CRD IV.

To achieve this aim, the ESRB through its Recommendation puts forward an approach that is based on two main pillars. Firstly, the systematic assessment of the cross-border effects of macro-prudential policy, which aims to ensure that macro-prudential policy makers make an ex ante assessment of potential cross-border effects of their proposed measures. Secondly, a coordinated policy response in the form of voluntary reciprocity for macro-prudential policy measures when needed.

The Recommendation highlights that these pillars are to be implemented as consistently as possible across the Union. Thus, the Recommendation provides guidance to relevant authorities with regards to adopting reciprocating measures in response to other macro-prudential policy measures by other authorities.

In line with Article 17A of the Central Bank of Malta Act, the Central Bank will reciprocate as necessary measures adopted by other Member States, as recommended by the ESRB, subject to a materiality assessment following which communication on the way forward is made on the Bank's website. Reciprocity is expected to have two positive effects: (1) it avoids regulatory arbitrage (2) domestic credit institutions build resilience to the build-up of risks in other jurisdictions. As regards to the first type of effect, reciprocity would avoid a situation where banking groups circumvent the macro-prudential measures, either through branches or cross border holdings. As a result, in future domestic credit institutions may be required to reciprocate measures implemented in other countries, subject to a materiality threshold.

Assessments of any possible cross-border effects of local macro-prudential policies are also carried out according to the Bank's macro-prudential policy strategy, so as to avoid material negative spill-overs to other countries.<sup>10</sup>

### **Domestic macro-prudential policy decisions for 2015/2016**

The Central Bank of Malta has developed and published its own macro-prudential policy strategy, which sets out an operational framework following a four-step cycle, namely:

<sup>7</sup> CRR Article 124 para 5 states that "The institutions of one Member State shall apply the risk weights and criteria that have been determined by the competent authorities of another Member State to exposures secured by mortgages on commercial and residential property located in that Member State".

<sup>8</sup> CRR Article 164 para 7 states that "The institutions of one Member State shall apply the higher minimum LGD values that have been determined by the competent authorities of another Member State to exposures secured by immovable property located in that Member State".

<sup>9</sup> Recommendation ESRB/2014/1 of the ESRB on guidance to EU Member States for setting countercyclical buffer rates, advocates the full reciprocation of CCyB rates between Member States.

<sup>10</sup> Central Bank of Malta (2015): "Macro-prudential Policy Strategy of the Central Bank of Malta".

- (i) identification and evaluation of systemic risks;
- (ii) selection and calibration of the macro-prudential instrument;
- (iii) implementation of the macro-prudential instrument;
- (iv) evaluation of the macro-prudential instrument.

Within this framework and in line with the relevant regulation, the domestic authorities have operationalised two macro-prudential instruments:

#### *The countercyclical capital buffer*

The countercyclical capital buffer (CCyB) requires credit institutions to set aside additional common equity tier one capital during periods of excessive credit growth. The aim of the CCyB is to increase bank resilience in good times to absorb potential losses that could arise in a downturn, thus enabling continued supply of credit to the real economy.

In accordance with Article 136(7) of EU Directive 2013/36/EU, transposed in Central Bank of Malta Directive No. 11, the Bank shall announce the setting of the countercyclical capital buffer rate based on a quarterly assessment of the risks arising from excessive credit growth.

Given the overall subdued credit growth, the domestic CCyB rate has been set at 0%.<sup>11</sup> The relevant credit-to-GDP ratio stood at 97.0% as at December 2015, and its deviation from the long-term trend was -21.4 percentage points. The credit-to-GDP ratio, its deviation from the long-term trend, other relevant factors, as well as the level of the CCyB rate, is reviewed on a quarterly basis in line with the ECB SSM approval process. This process involves early interaction with the ECB on the appropriateness of the measure and subsequent approval by the ECB's Financial Stability Committee, the Supervisory Board and the ECB's Governing Council. In line with this process, the ECB-SSM has been in agreement with the Bank's assessment that the CCyB rate should be set at 0%.

#### *The capital buffer for other systemically important institutions*

The capital buffer for other systemically important institutions (O-SII) is aimed at mitigating the vulnerability of the domestic financial system and the real economy to the failure of systemically important institutions, by increasing bank resilience to absorb potential losses and reducing moral hazard arising from potential public sector support. The O-SII buffer consists of a capital surcharge applied to institutions that may, in the event of failure or impairment, have considerable impact on the financial system and the real economy.

The O-SII capital buffer is a macro-prudential tool legally embedded in the CRR/CRD IV framework which, in turn, has been domestically transposed in Central Bank of Malta Directive No. 11 and MFSA Banking Rule 15/2015. The Bank and MFSA have jointly developed a domestic O-SII Identification framework and a capital calibration methodology.

Within the scope of the identification methodology adopted by the domestic authorities through the JFSB and in line with Directive 11, as a first step, systemically important institutions are to be identified and assessed on the basis of their relative importance within the sector based on the following criteria:

- (i) size;
- (ii) substitutability;
- (iii) cross-border activity;
- (iv) resident interconnectedness.

The more important the institution is within the sector, the higher the score. This process is broadly in line with the EBA's methodology in this regard. The identification methodology also includes a second step whereby authorities assess whether institutions that do not qualify under the first step should be designated

<sup>11</sup> <https://www.centralbankmalta.org/countercyclical-capital-buffer>

**Table 5.1  
CAPITAL BUFFER RATE BASED ON A STEPPED FRAMEWORK FOR O-SII  
IDENTIFICATION**

Credit Institution	Determination as O-SII based on Step 1 or 2	Buffer rate
Medifin [Mediterranean Bank]	Step 2	0.5%
HSBC Group Malta	Step 1	1.5%
Bank of Valletta Group	Step 1	2.0%

as O-SII based on additional indicators assessing their relative importance to the economy, namely in terms of total assets to GDP and covered deposits relative to the available funds in the national deposit guarantee scheme. In both steps, indicators were selected such that they adequately capture systemic risk domestically.

The capital buffer calibration methodology relies on the resultant O-SII scores. Based on these scores, O-SII are allocated to different buckets attracting different capital buffer rates. The O-SII with the highest scores are allocated to the higher bucket while the O-SII with the lowest scores are allocated to the lower buckets, subject to pre-determined thresholds and criteria.<sup>12</sup>

The MFSA and the Central Bank of Malta, under the auspices of the JFSB, following consultation with the ECB, identified three banks as systemically important and imposed additional capital buffers, subject to a four-year transitory period as indicated in Table 5.1.

Buffer rates are also approved by the ECB in an early interaction process on the appropriateness of the measure followed by an approval of the ECB's Financial Stability Committee, Supervisory Board and the Governing Council. The SSM has the legal power to apply higher requirements for capital buffers, including the O-SII buffers, than those applied by the national competent authorities as per Article 5 of the SSM Regulation.

### Future policy discussion

Domestic macro-prudential policy will focus on trends and dynamics in the real estate market in Malta. Despite overall subdued credit growth, as indicated by the credit-to-GDP gap, growth in mortgage lending is strong, albeit in line with nominal GDP growth. While household net financial position (financial assets less gross debt) is positive and improving, and the default rates on mortgages are low, international experiences show that the real estate sector could pose risks to the financial system. To this effect the Authorities embarked on a granular data collection exercise from the core domestic banks for an in-depth analysis of this sector.

Domestic authorities are also analysing ways to mitigate the risks arising from legacy non-performing loans (NPL), especially with respect to particular sectors. The completion of the on-going work on insolvency legislation – reducing the time of court proceedings and enhancing contract enforcement – should lead to a significant improvement in NPL resolution. In this respect, the Authorities are considering the use of further measures to address the level of NPLs in specific credit institutions, which may include tightening of the measures included in the current Banking Rule 09/2013 under certain specific circumstances.<sup>13</sup>

<sup>12</sup> For more details see the Central Bank of Malta website – <https://www.centralbankmalta.org/systemically-important-institutions>.

<sup>13</sup> BR/09/2013 Measures Addressing Credit Risks Arising From The Assessment Of The Quality Of Asset Portfolios Of Credit Institutions Authorised Under The Banking Act 1994.

## 6. RISK OUTLOOK AND POLICY RECOMMENDATIONS

The *Financial Stability Report 2015* provides an assessment of the outlook for financial stability in Malta by identifying the risks faced by the domestic financial system and the resilience of the system. It assesses the ability of the domestic financial system to continue providing its core functions to the economy, even under adverse circumstances.

During 2015 and in the early months of 2016, the domestic financial system remained resilient against risks and vulnerabilities emanating from the macroeconomic environment, both local and international and those from within the domestic financial system. Such resilience is demonstrated on the back of robust capital buffers, ample liquidity and sustained profitability. Banks were able to meet the more onerous regulatory regime, without compromising their overall operations and core business. The persistently low interest rate environment, coupled with slow credit growth and higher regulatory costs have adversely impacted the banks' performance, albeit profit levels remained buoyant over the years. During the period under review, some of the challenges identified in the previous year persisted, particularly those relating to the external economic environment on account of headwinds related to the ongoing geopolitical tensions. Such risks have intensified further towards the beginning of 2016, following dramatic falls in commodity and energy prices, and specific events in some EU countries particularly the campaign launch and outcome of the UK's EU membership referendum. When compared to 2014, credit risk remained generally stable with signs of improvement.

Looking forward, risks are generally anticipated to remain contained, mirroring a positive outlook for financial stability buttressed by increased resilience in line with evolving regulatory requirements.

**While the euro area registered a muted recovery, global economic prospects remained bleak, characterised by unsettled geopolitical conditions and a further deterioration in the growth outlook for emerging market economies, especially China.**

During 2015 global growth was relatively weak, largely impacted by the slowdown in emerging markets and lower oil prices, dampening the prosperity of commodity-exporting economies. Banks in Malta, particularly core domestic banks, and domestic insurance companies have limited exposure to emerging market economies, and hence the direct impact is contained.<sup>1</sup> However, spill-overs through second-round effects could damage export-oriented industries in Malta through lower global demand. To date, such implications do not seem to have affected, to any significant extent, local firms. Indeed, the tourism sector, which is a major export-oriented industry in Malta, continued to register buoyant performance showing no signs of waning, while other services-oriented sectors continued to expand creating bottlenecks in the labour market. Meanwhile, geopolitical tensions and country-specific political uncertainty, particularly across a number of EU Member States, could also negatively impact the Maltese economy, with possible repercussions on the financial sector through uncertainty-driven volatility on international capital markets. Following the results of the UK's referendum on EU membership, uncertainty across the whole economic bloc intensified somewhat.

**The domestic economy continued to outperform, growing at a faster pace than most EU countries. Domestically, service-oriented industries contributed positively to overall growth, whereas other sectors reported further improvement.**

The Maltese economy continued to grow robustly, driven by higher domestic demand, both for consumption and investment. Economic sectors which performed well during the past years continued to register positive results, while weak-performing industries showed signs of further recovery. Indeed, the construction and real

<sup>1</sup> Emerging market economies include Argentina, Brazil, China, India, Indonesia, Mexico, Russia, Saudi Arabia, South Africa, Turkey, Angola, Iran, Iraq, Kazakhstan, Kuwait, Nigeria, Qatar, United Arab Emirates, Venezuela, Chile, Colombia, Korea, Malaysia, Peru, Philippines, Thailand and Vietnam.



estate sector contributed positively to economic growth, with forward-looking indicators such as the number of permits issued by the Planning Authority (formerly known as Malta Environment and Planning Authority) suggesting further recovery in the sector. House prices have continued to recover, picking up momentum in 2015, on the back of expanding economic activity. The recovery in real estate activity also partly reflected the time-bound government policies adopted in recent years, including fiscal incentives for first-time buyers and to a lesser extent, the Individual Investor Programme. Nevertheless, at the current juncture, property price misalignment appears to be very limited and does not indicate undue risk accumulation.

Developments in the real estate sector could significantly impact the financial system. In this regard, over the years, banks in Malta have kept prudent lending standards, especially towards the construction sector, whilst adopting generally conservative lending policies. The internal policies of core domestic banks with respect to average loan-to-value, loan-to-income and debt service-to-income ratios remained conservative, keeping in check potential financial stability risks stemming from real estate. National authorities are closely monitoring developments in the local real estate market and analysing any potential risks that could emanate from this sector, standing ready to possibly implement borrower-based measures, to reinforce those already implemented by the banks.<sup>2</sup> In addition, domestic non-bank financial companies, such as investment funds have negligible exposure towards real estate, limiting somewhat any possible spill-overs from the real estate market to other parts of the financial system.

**Although credit demand remained muted, the positive economic performance, accompanied by improved provisioning levels, alleviated somewhat the level of credit risk across core domestic banks.**

Despite the fast growing economy, credit demand remained tepid. Credit granted by the core domestic banks continued to be sustained by mortgage lending. Although remaining below the rates reported in early 2000, mortgage lending picked up since end 2013, sustained by the low interest rate environment and rising disposable income, which positively supported housing affordability. Meanwhile, lending to non-financial corporates (NFC) remained subdued, despite the positive economic performance. The latter was largely driven by service-providers, which tend to be less capital intensive than the more traditional sectors, such as manufacturing, implying lower financing needs, and hence lower demand for bank credit. Other factors which contributed to a fall in lending to NFCs related mainly to lower credit channelled to the public sector and to a lesser extent, the issue of debt securities by NFCs. In view of the prevalent low credit demand by the corporate sector, which is not anticipated to grow at high rates in the short-to-medium term, banks may need to look into other niche areas where to channel their funds to diversify further their loan portfolio and improve the sustainability of their core business.

Reduction in the stock of non-performing loans (NPL) pertaining to the non-financial corporate sector remains a key challenge for the core domestic banks. The NPL ratio of this sector stood at around 17.7% as at end December 2015, down by 2.4 percentage points over the previous year, slightly lower than the euro area average of around 19%.<sup>3</sup> In 2015, total NPLs increased marginally driven by lending to non-residents, as resident NPLs declined. The latter resulted from the non-financial corporate sector, reflecting the enhanced creditworthiness of corporates as economic activity grew at a strong pace. The quality of household loans however, deteriorated slightly, although remaining sustainable, as reflected by the low level of household NPLs.

Unlike other countries across the euro area, legacy NPLs are not hampering the supply of credit or jeopardising the health of the banking sector, given the ample liquidity, adequate capital buffers and the extent of provisions and collateral held against such NPLs. While the outlook for a reduction of credit risk is favourable, also on the back of strong economic performance, banks are still encouraged to reduce legacy NPLs

<sup>2</sup> As per Article 124 of the CRR, banks in Malta have to apply risk weights higher than 35% on mortgages carrying a loan-to-value ratio in excess of 70%. This is a more stringent threshold than that proposed under current CRR/CRD IV, which establishes a minimum LTV of 80%.

<sup>3</sup> The average NPL ratio for the euro area refers to SME loans. The NPL ratio for NFCs (which includes large corporates) stood around 12.5% in 2015. Refer to *Financial Stability Review* May 2016, ECB.

and continue to build provisions and capital buffers to mitigate further credit risk. The Authorities are also actively monitoring this risk with a view of decreasing further the NPL ratios over time through tighter policy measures, should certain circumstances arise.

**Challenges to profitability owing to the low interest rate environment and subdued credit growth persisted. However, banks' preference towards low-risk-high-quality assets was sustained.**

Despite operating in a very low interest rate environment, the profitability of banks improved in 2015, on the back of widening margins. However, their ability to continue benefitting from widening margins will be challenging, particularly for core domestic banks, which rely extensively on retail customer deposits to fund their operations, thus limiting the lower bound on their interest expenditure. The latter is concurrent with declining lending rates due to the prevailing monetary policy stance, but also due to increased competition.

The ample liquidity levels held by some banks may also be hampering profitability levels. This is underpinned by the monetary policy developments which led to negative interest rates, and the low return on investment assets. The level of excess liquidity across the core domestic banks increased further, as customer deposits continued to flow at a fast rate. This is evidenced by the average loan-to-deposit ratio which dropped further, below 60% in 2015 and is anticipated to decline further. In spite of these challenges, banks remained prudent in their lending practices and investment strategies. Indeed, despite higher returns there are no signs that this reflected increased risk-taking by banks by shifting their portfolios towards assets with a higher risk profile. Indeed, the proportion of risk-weighted assets to total assets declined.<sup>4</sup>

Looking ahead, credit growth, on the back of strong economic expansion could relieve to some extent the pressure on profits. However, the change in the structure of the Maltese economy, which is increasingly geared towards a services-oriented productive base, together with the likelihood of a prolonged low interest rate environment, could adversely impact interest income. Furthermore, bouts of volatility in the international capital markets, particularly following the outcome of the UK referendum, could also negatively affect the profitability of banks. However, in 2015 core domestic banks booked a larger proportion of their investment portfolio as held-to-maturity, limiting further possible implications on profitability in the event of volatility in bond prices.

Risks from the non-core domestic and international banks on the domestic financial system and the economy as a whole remained muted, particularly as interlinkages continued to be weak. However, these two categories of domestic banks continued to operate with comfortable capital levels, in excess of the minimum regulatory requirements. Furthermore, liquidity positions remained healthy, whereas improvement in profitability levels was reported in 2015. Similarly, risks from the non-bank financial institutions remained low, as both insurance companies and investment funds continued to operate prudently, on the back of a conservative investment risk profile. Linkages with some of the banks operating in Malta however remained, predominantly through cross-shareholding.

**Regulatory milestones were achieved in 2015, with further macro-prudential measures introduced in 2016.**

In 2015, the new CRR/CRD IV framework came into force. Banks have for long prepared for the introduction of this framework, and they have successfully met the required regulatory milestones for capital and liquidity. In 2016, several regulatory thresholds, including the Liquidity Coverage Ratio and the Leverage Ratio, were stepped up. Furthermore, other regulatory requirements, such as the Net Stable Funding Ratio will come into force in January 2018.

<sup>4</sup> Higher returns were partly sustained from capital gains on securities in a context of declining yields.

In 2016, local Authorities introduced several macro-prudential policies, including the adoption of countercyclical capital buffers, capital requirements for other systemically important institutions (O-SII) and the capital conservation buffer.<sup>5</sup> Furthermore, as from 1 January 2016, the Single Resolution Mechanism became fully functional, with the objective to build the Single Resolution Fund over a period of eight years. In light of these prospective developments, banks will continue to face regulatory challenges.

With regards to the insurance sector, firms in this field of business have been involved in the preparatory phase towards the run-up for the adoption of the Solvency II regulatory regime, which came into force in 2016. This framework, which is more onerous than the previous regime, will make capital requirements more responsive to risk levels of the underlying assets. On a medium-term horizon, this might lead to some asset reallocation by insurance companies.

**Table 6.1**  
**MEASURES TO ADDRESS KEY RISKS IN THE FINANCIAL SYSTEM**

<b>Risks</b>	<b>Measures required</b>	<b>Time horizon</b>
Credit risk	Improve coverage ratio	<i>Short-term</i>
	Ensure prudent lending policies	<i>Short-term</i>
	Enhance valuation methods for real estate collateral	<i>Short to medium-term</i>
	Embark on a process for an orderly reduction of dated non-performing loans	<i>Medium to long-term</i>
Capital requirements	Maintain prudent dividend policies	<i>Short-term</i>

<sup>5</sup> The countercyclical capital buffer was set at 0% in the first half of 2016, whereas the O-SII capital requirements were set at 2.0%, 1.5% and 0.5% for the three systemically important institutions (Bank of Valletta Group, HSBC Group Malta and Medifin (Mediterranean Bank)), respectively. The O-SII buffer will be implemented over a four-year period. The capital conservation buffer was set at 0.625%.



# **APPENDIX AND GLOSSARY**



**Table 1**  
**APPENDIX: FINANCIAL SOUNDNESS INDICATORS (FSI)**

	Core Domestic Banks					Non-Core Domestic Banks					International Banks					Total Banks					
	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	2011	2012	2013	2014	2015	
<b>Core FSIs</b>																					
Regulatory capital to risk-weighted assets <sup>1</sup>	15.48	16.08	16.51	14.47	15.00	24.88	26.89	22.58	17.44	21.96	115.53	115.73	119.60	69.15	55.40	56.78	55.82	46.20	25.75	21.72	
Regulatory Tier 1 capital to risk-weighted assets <sup>1</sup>	11.82	12.12	12.88	11.55	12.15	22.29	24.31	22.12	17.05	18.49	114.37	115.19	119.59	69.14	48.65	54.22	53.30	43.88	23.69	19.38	
Non-performing loans net of specific provisions & interest in suspense to total own funds <sup>1</sup>	36.76	37.44	39.01	42.84	38.44	9.81	7.66	2.10	7.81	9.21	0.08	0.17	0.79	3.40	6.23	5.56	6.15	9.40	19.10	23.08	
Non-performing loans to total gross loans <sup>1</sup>	7.10	7.75	8.95	7.64	7.23	8.44	9.77	3.71	4.51	4.14	0.50	0.48	1.39	0.67	0.90	3.25	3.78	5.55	3.97	4.32	
Sectoral distribution of resident loans to total loans																					
Agriculture	0.30	0.29	0.29	0.25	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.12	0.16	0.15	0.14	
Fishing	0.11	0.11	0.13	0.09	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.05	0.07	0.06	0.07	
Mining and quarrying	0.08	0.07	0.05	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0.03	0.03	0.03	
Manufacturing	3.17	3.34	3.20	2.90	2.77	0.44	0.66	0.58	0.65	0.57	0.00	0.00	0.00	0.00	0.00	1.21	1.41	1.75	1.69	1.69	
Electricity, gas, steam and air conditioning supply	5.45	2.34	2.22	3.23	2.67	0.00	0.00	3.27	5.14	0.00	0.00	0.00	0.00	0.00	0.00	2.06	0.97	1.34	2.22	1.60	
Water supply; sewerage, waste management and remediation activities	0.73	0.73	0.72	0.63	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.30	0.36	0.38	0.33	
Construction	11.57	10.44	9.78	8.24	5.51	10.79	11.07	10.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72	4.67	5.25	4.94	3.31	
Wholesale and retail trade; repair of motor vehicles and motor cycles	9.48	8.77	8.46	8.66	8.50	2.55	4.55	1.08	0.67	1.11	0.00	0.00	0.00	0.00	0.00	3.67	3.79	4.59	5.23	5.17	
Transportation and storage	4.47	4.11	3.85	3.52	3.50	1.91	1.85	1.29	0.80	0.00	0.05	0.00	0.00	0.11	0.22	1.78	1.77	2.12	2.19	2.18	
Accommodation and food service activities	5.26	5.13	5.06	4.47	5.20	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	1.99	2.14	2.72	2.68	3.13	
Information and communication	1.30	1.24	1.26	0.96	0.84	0.15	0.25	0.18	0.11	0.11	0.00	0.00	0.00	0.00	0.00	0.50	0.52	0.68	0.68	0.51	
Financial and insurance activities	2.05	4.66	4.32	4.14	4.94	0.60	0.39	0.78	0.74	0.90	0.00	0.00	0.01	0.02	0.03	0.80	1.96	2.36	2.53	3.03	
Real estate activities [includes imputed rents of owner-occupied dwellings]	4.53	4.63	4.78	4.83	5.69	0.09	0.10	2.43	3.55	3.50	0.00	0.00	0.00	0.00	0.45	1.71	1.93	2.67	3.09	3.76	
Professional, scientific and technical activities	1.00	0.65	0.46	0.35	0.42	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.27	0.26	0.21	0.25	
Administrative and support service activities	1.19	1.10	1.05	1.01	0.95	0.00	0.05	0.07	0.08	0.11	0.01	0.01	0.01	0.01	0.01	0.45	0.46	0.57	0.61	0.58	
Public administration and defence; compulsory social security	1.40	1.39	1.48	1.55	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53	0.58	0.80	0.93	0.96	
Education	0.39	0.40	0.38	0.36	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.17	0.21	0.21	0.26	
Human health and social work activities	0.57	0.65	0.67	0.67	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.27	0.36	0.40	0.41	
Arts, entertainment and recreation	0.49	0.68	0.70	0.62	0.52	0.91	0.87	0.58	0.39	0.00	0.00	0.00	0.00	0.00	0.02	0.21	0.31	0.40	0.39	0.32	
Other services activities	0.35	0.36	0.39	0.33	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.15	0.21	0.20	0.22	
Households and individuals (excl. Sole Proprietors)	41.05	41.35	43.27	43.54	46.11	0.06	0.08	0.12	0.11	0.14	0.00	0.00	0.01	0.01	0.01	15.52	17.23	23.25	26.12	27.74	
Mortgages	33.08	33.82	35.84	38.72	39.72	0.01	0.01	0.02	0.01	0.01	0.00	0.00	0.01	0.01	0.01	12.51	14.09	19.25	22.08	23.89	
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	0.00	0.00	0.00	0.00	0.00	
Non-resident loans to total loans	5.05	7.57	7.46	9.60	8.37	82.47	80.14	89.56	87.82	93.57	99.94	99.98	99.97	99.86	99.26	63.51	60.90	49.83	45.07	44.31	
Return on assets <sup>2</sup>	0.98	1.05	1.11	0.77	0.71	-0.43	1.23	0.29	-1.32	0.18	0.88	1.08	0.30	0.85	1.00	0.84	1.09	0.64	0.71	0.85	
Return on equity <sup>2</sup>	15.08	15.46	15.27	9.82	9.94	-2.22	6.91	1.60	-6.42	1.44	3.96	4.55	2.28	2.38	3.42	4.37	5.86	3.74	3.62	5.93	
Interest margin to gross income	72.23	67.84	63.58	64.84	64.46	63.04	14.66	42.04	46.31	43.54	87.90	123.25	173.55	201.86	137.96	79.11	83.14	101.16	115.13	92.92	
Non-interest expense to gross income	54.07	45.54	47.10	51.22	54.06	45.53	28.69	64.77	56.14	73.39	8.87	7.06	9.96	12.08	24.73	34.10	27.44	34.89	36.83	43.27	
Non-interest income to gross income	27.54	33.20	36.42	35.16	35.54	30.04	71.02	57.96	53.69	56.46	11.00	-24.43	-73.55	-101.96	-37.98	20.89	16.86	-1.18	-15.13	7.08	
Liquid assets to total assets	22.12	26.58	27.16	28.30	31.78	20.99	15.49	20.19	31.68	36.34	7.33	9.90	28.14	19.67	22.74	16.11	19.64	26.85	27.27	31.20	
Liquid assets to short-term liabilities	45.41	51.54	51.65	50.42	50.24	88.00	57.90	72.09	77.92	63.26	108.18	145.98	204.20	84.73	83.59	49.59	56.61	59.59	53.89	52.61	
<b>Other FSIs</b>																					
Total coverage ratio <sup>3</sup>	35.53	37.63	37.87	40.47	43.44	56.42	63.83	94.64	77.10	62.79	100.91	95.15	42.98	40.45	62.86	43.26	43.64	42.28	42.71	46.28	
Domestic securities to total assets	11.71	10.80	10.94	9.68	9.30	0.78	2.94	5.54	4.56	7.74	0.00	0.00	0.00	0.00	0.17	3.78	3.61	4.10	3.88	4.54	
Foreign securities to total assets	18.56	18.02	19.30	23.31	21.82	19.96	22.77	20.96	19.48	12.45	31.69	36.15	37.60	52.76	50.41	27.01	29.75	30.41	40.14	36.02	
Unsecured loans to total lending	16.85	16.79	20.57	22.17	21.62	76.23	71.98	74.76	65.23	70.87	51.36	55.62	57.28	48.44	38.93	39.54	40.64	39.03	34.25	30.60	
Assets to total capital and reserves	13.79	13.22	12.56	14.05	13.74	2.83	3.22	3.41	8.41	8.42	1.56	1.45	1.33	1.67	1.97	3.13	3.14	3.65	6.43	8.01	
Large exposure to total own funds <sup>1</sup>	118.05	102.04	107.95	103.40	99.96	203.86	186.57	196.90	339.94	156.61	10.22	10.78	17.08	45.31	120.39	32.22	31.40	47.99	88.86	113.94	
Gross asset position in financial derivatives to total own funds <sup>1</sup>	4.48	2.68	2.12	1.09	1.27	0.65	0.33	0.44	0.84	0.33	0.42	0.54	0.01	0.88	0.56	0.99	0.86	0.50	0.96	0.90	
Gross liability position in financial derivatives to total own funds <sup>1</sup>	9.95	9.47	4.52	4.63	0.02	1.67	0.80	0.45	0.33	0.27	0.12	0.07	0.12	0.55	0.25	1.55	1.53	1.12	4.12	2.79	
Personnel expenses to non-interest expenses	52.44	53.92	50.61	50.62	51.23	36.24	38.64	42.05	44.96	42.46	21.24	25.19	33.32	27.48	21.03	46.50	48.45	48.14	47.37	43.52	
Customer loans to customer deposits	74.05	72.13	67.80	63.98	58.23	102.18	86.94	96.24	75.69	60.68	149.27	140.21	79.50	93.05	104.08	100.22	93.81	72.29	71.79	67.90	
Net open position in equities to total own funds <sup>1</sup>	14.62	13.80	13.48	14.56	15.29	137.76	139.74	169.43	44.97	82.21	0.89	0.28	0.02	0.26	3.25	7.68	7.65	10.59	9.01	16.21	
Loan-to-value <sup>4</sup>																					
Residential	73.48	70.38	71.49	74.18	75.40																
Commercial	63.16	63.19	67.30	69.00	63.00																

<sup>1</sup> Capital data based on the COREP returns for 2014 and 2015. Large exposures are based on COREP returns for December 2015. NPL data based on FINREP for 2014 and 2015.

<sup>2</sup> Based on profit after tax.

<sup>3</sup> For the core domestic banks the ratio includes 'Reserve for General Banking Risks' as per the revised Banking Rule 09/2013, implemented over a three-year period up to 2015.

<sup>4</sup> Based on a sample of core domestic banks.





## Glossary

**Asset Purchase Programme:** The asset purchase programme (APP) is a term which includes all purchase programmes under which private sector securities and public sector securities are purchased to address the risks of a too prolonged period of low inflation. The APP is part of a package of measures that also includes targeted longer-term refinancing operations.

**Bid-to-cover ratio:** a ratio that compares the value of bids received in a Treasury auction of a security to the nominal value of the security. The higher the ratio, the higher is the demand.

**Collective provisions:** the amount of provisions allocated for the estimated losses incurred on a collective basis, but which have yet to be individually identified.

**Combined ratio:** the sum of net claims incurred and net operating expenses as a proportion of net premia earned. A combined ratio of less than 100% signals underwriting profit.

**Composite Indicator of Systemic Stress (CISS):** an indicator compiled by the European Central Bank and is based on 15 financial stress measures split equally in five categories, including the financial intermediaries sector, money markets, equity markets, bond markets and foreign exchange markets.

**Core Tier 1 capital ratio:** Tier 1 capital is the core measure of a bank's financial strength from a regulator's point of view. It is composed of core capital, which consists primarily of common stock and disclosed reserves (or retained earnings), but may also include non-redeemable non-cumulative preferred stock.

**Countercyclical Capital Buffer (CCyB):** requires credit institutions 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 absorb potential losses that could arise in a downturn, enabling continued supply of credit to the real economy.

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

**Credit default swap:** a swap designed to transfer the credit exposure of fixed income products between parties. The buyer of a credit swap receives credit protection, whereas the seller of the swap guarantees the creditworthiness of the product. Thus, the risk of default is transferred from the holder of the fixed-income security to the seller of the swap.

**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 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.

**Directive 8:** comprises the terms and conditions applicable to counterparties for monetary policy operations with the Central Bank of Malta and is based and compiled in conformity with the contents of the '*Implementation of Monetary Policy in the euro area: General Documentation on Eurosystem Monetary Policy Instruments and Procedures*'.

**Directive 11:** regulates the current domestic macro-prudential framework. The Bank coordinates with the European Systemic Risk Board (ESRB) to implement its recommendations, where relevant.

**DJ Stoxx 600:** an index derived from the STOXX Europe total market index and a subset of the STOXX Global 1800 index. With a fixed number of 600 components, the STOXX Europe 600 index represents large, mid and small capitalisation companies across 18 countries in Europe.

**Economic Sentiment Indicator:** a composite indicator by the European Commission made up of five sectoral confidence indicators with different weights: industrial confidence indicator, services confidence indicator, consumer confidence indicator, construction confidence indicator, and the retail trade confidence indicator.

**ESA 2010:** The European System of National and Regional Accounts (ESA 2010) is the new internationally-compatible EU accounting framework for a systematic and detailed description of an economy.

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

**Harmonised Competitiveness Indicator (HCI):** an indicator providing meaningful and comparable measures of euro area countries' price and cost competitiveness that are also consistent with the real effective exchange rates of the euro.

**Harmonised Index of Consumer Prices (HICP):** is an indicator of consumer prices according to a harmonised approach and a single set of definitions across the EU.

**Haircuts:** a risk control measure 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.

**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.

**Interest in suspense:** the interest due on non-performing assets held in suspense until all the arrears of principal and interest have been settled, or a specific reverse entry is made when they are determined as non-performing. Interest falling due from the date of classification as a non-performing asset should be credited to interest in suspense.

**ITRAXX index:** is an index composed of credit default swaps covering senior European financials.

**Leverage ratio:** the proportion of capital and reserves/shareholders' funds to total assets. Capital and reserves/shareholders' funds include ordinary shares, share premium, perpetual preference shares, reserves and capital contributions.

**Liquid assets:** consist mainly of cash and balances held with the Central Bank of Malta, Treasury bills and similar securities, other eligible bills, deposits held with other credit institutions, debt securities, gold and other bullion, and investment funds.

**Liquidity Coverage Ratio (LCR):** the LCR promotes the short-term resilience of a bank's liquidity risk profile by ensuring that a bank has an adequate stock of unencumbered high-quality liquid assets (HQLA) that can be converted into cash easily and immediately in private markets to meet its liquidity needs for a 30 calendar day liquidity stress scenario.

**Liquidity ratio:** the value of liquid assets to short-term liabilities. In terms of Banking Rule 05/2007 issued by the Malta Financial Services Authority, credit institutions are required to hold a minimum liquidity ratio of 30%.

**Loan loss provisions:** collective provisions and specific provisions.

**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 the bank might not have enough liquidity to cover any unforeseen fund requirements; if the ratio is too low, the bank may not be maximising its earnings.

**Loan-to-value ratio:** the amount lent for the purchase of a property expressed as a proportion of the value of the property purchased.

**Main refinancing rate:** The main refinancing rate or minimum bid rate is the interest rate which banks have to pay when they borrow money from the ECB.

**Marginal lending facility:** a standing facility offered by the Eurosystem to credit institutions in order to obtain overnight liquidity from the national central bank, against the presentation of sufficient eligible assets. The rate on this facility represents the ceiling for the overnight interest rates.

**Nomenclature statistique des activités économiques dans la Communauté européenne (NACE):** is a four-digit classification providing the framework for collecting and presenting a large range of statistical data according to economic activity in the fields of economic statistics (e.g. production, employment and national accounts) and in other statistical domains developed within the European statistical system (ESS).

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

**Non-performing exposures ratio:** credit facilities and debt securities which are classified as non-performing, as a share of the total credit facilities and debt securities held by the bank.

**Non-performing loans:** credit facilities with payments of interest and/or capital overdue by 90 days or more, as well as those facilities about which a credit institution has reason to doubt the eventual recoverability of funds.

**Non-performing loans ratio:** non-performing loans expressed as a percentage of total loans outstanding.

**Own Funds:** refers to 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 systemically important institutions (O-SII):** are 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.

**Overnight deposit facility:** a standing facility offered by the Eurosystem for eligible credit institutions to deposit excess funds with the national central bank. The interest rate on the overnight deposit facility represents the floor of the overnight interest rates.

**Probability of default:** the likelihood that a debt will not be paid on time.

**Probability of a simultaneous default by two or more large and complex banking groups:** it estimates the probability of a systemic event within a period of one year, as measured by the systemic risk measure (SRM). The SRM, which is computed by the ECB, covers a sample of 15 banks.

**Repurchase agreement (repo):** a contract of sale of securities accompanied by an agreement authorising the seller to buy back the securities at a later date.

**Return on assets (ROA):** annual net income before (and after) tax divided by a 12-month average value of total assets.

**Return on equity (ROE):** annual net income before (and after) tax divided by a 12-month average value of shareholders' funds.

**Risk retention ratio:** the proportion of risk which is retained within insurance companies, defined as premia written, net of reinsurance, as a proportion of gross premia.

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

**Short-term liabilities:** include the amounts owed to banks and customers, which can be withdrawn on demand or at short notice with a remaining time to maturity of three months or less, or which can be withdrawn at any time against a penalty. They also include any other borrowing which is repayable either on demand or with a remaining term-to-maturity of seven days or less but exclude intra-group borrowings.

**Solvency Capital Requirement (SCR):** the SCR is the capital required for insurers to meet their obligations over the next twelve months with a probability of at least 99.5%.

**Solvency II Directive:** This Directive (2009/138/EC) came into force in January 2016, regulating all insurance and reinsurance companies operating in the EU, with gross premium income exceeding €5 million or gross technical provisions in excess of €25 million. The new framework replaces the Solvency I Directive introduced in the 1970s.

**Specific provisions:** are set aside for non-performing facilities.

**Systemic stress:** the risk of disruption in the financial system with the potential to have serious negative consequences for the internal market and the real economy.

**Technical reserves:** the funds set aside by insurance companies from profits to cover claims.

**Tier 1 capital ratio:** Tier 1 capital which is mainly composed of equity and retained earnings, expressed as a percentage of risk-weighted assets.

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

**Targeted longer-term refinancing operations (TLTRO):** are aimed at improving bank lending to the euro area non-financial private sector, excluding loans to households for house purchase, over a window of two years.

**Total capital ratio:** the bank's regulatory capital expressed as a percentage of its risk-weighted assets.

**VDAX:** a measure of the implied volatility of the DAX, which is a blue chip stock market index consisting of the 30 major German companies trading on the Frankfurt Stock Exchange.

**Weighted average interest rate:** the interest rate charged to each economic sector multiplied by the latter's share of total outstanding loans.