# Financial Stability Report 2010





BANK ĊENTRALI TA' MALTA EUROSISTEMA CENTRAL BANK OF MALTA



BANK ĊENTRALI TA' MALTA EUROSISTEMA CENTRAL BANK OF MALTA

# THIRD FINANCIAL STABILITY REPORT

2010

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Financial stability is a condition where the financial system – comprising institutions, markets and infrastructures – is able to: allocate savings to investment opportunities efficiently; ensure the rapid settlement of payments; effectively manage potential risks that may harm its performance; and absorb shocks without impairing its operations. In this manner financial stability is conducive to a well functioning economy and leads to sustainable growth.

The Financial Stability Report surveys the financial system in Malta so as to identify possible sources of risks and vulnerabilities that could impact the stability of the system while assessing its resilience to shocks. The Report is also intended to foster a better understanding of the financial system in Malta and relevant financial stability issues. The Report has been adopted by the Bank's Financial Stability Committee.

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\*as at 11 March 2011

The financial stability analysis focuses on those institutions that the Central Bank of Malta considers important for the domestic financial system. Unless otherwise stated, these will be referred to as 'credit institutions' or 'banks' (used interchangeably), 'insurance companies' and 'investment funds'. References to the banking sector, the insurance sector and the securities sector refer to the aggregate of these banks, insurance companies and investment funds, respectively, which together are referred to as the 'domestic financial system'.

Selected credit institutions for the financial stability analysis:

APS Bank Ltd Banif Bank (Malta) plc Bank of Valletta plc Bawag Malta Bank Ltd HSBC Bank Malta plc Lombard Bank Malta plc Volksbank Malta Ltd

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# **ABBREVIATIONS**

ASC	Advisory Scientific Committee
ATC	Advisory Technical Committee
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
BLS	Bank Lending Survey
BOE	Bank of England
BSC	Banking Supervision Committee
CAR	Capital Adequacy Patio
CRM	Capital Adequacy Natio
	Certifial Dalik Of Malla
CCAR	Core Capital Adequacy Ratio
CDS	
CEBS	
CEIOPS	Committee of European Insurance and Occupational Pensions Supervision
CESR	Committee of European Securities Regulators
CIS	Collective Investment Scheme
CPSS	Core Principles for Systematically Important Payment Systems
CRD	Capital Requirements Directive
DCS	Depositors' Compensation Scheme
DOI	Department of Information
EBA	European Banking Authority
ECB	European Central Bank
EFSF	European Financial Stability Facility
EIOPA	European Insurance and Occupational Pensions Authority
EONIA	Euro OverNight Index Average
ESCB	European System of Central Banks
ESA	European Supervisory Authorities
FSM	European Stabilisation Mechanism
ESMA	European Securities and Market Authority
ESES	European System of Financial Supervision
ESRB	European Systemic Risk Board
EURD	Employment and Training Corporation
EII	
	Edopean Onion
FED	Federal Reserve
FSB	Financial Stability Board
FSI	Financial Soundness Indicators
FSR	Financial Stability Report
FISE	Financial Times Stock Exchange Index
GDP	Gross Domestic Product
HHI	Herfindahl-Hirschman Index
HHR	Hui-Heubel Ratio
HICP	Harmonised Index of Consumer Prices
HTM	Held to Maturity
IAS	International Accounting Standards
IASB	International Accounting Standards Board
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
LFS	Labour Force Survey
LLPs	Loan Loss Provisions
LtV	Loan-to-Value ratio
MEPA	Malta Environment and Planning Authority
MFEI	Ministry of Finance, the Economy and Investment

MGSMalta Government SecuritiesMSEMalta Stock ExchangeNSONational Statistics OfficeNPISHNon-Profit Institutions Serving HouseholdsNPLsNon-Performing LoansOBSOff-Balance SheetP/E ratioPrice Earnings RatioPDsProbability of DefaultROAReturn on AssetsROEReturn on EquityRRRRisk Retention RatioRTGSReal Time Gross SettlementRWARisk Weighted AssetsS&PStandard and Poor'sSMEsSmall and Medium sized EnterprisesUCITSUndertakings for Collective Investment in Transferable SecuritiesUKUnited KingdomUNUnited NationsUSUnited States	MFSA	Malta Financial Services Authority
MSEMalta Stock ExchangeNSONational Statistics OfficeNPISHNon-Profit Institutions Serving HouseholdsNPLsNon-Performing LoansOBSOff-Balance SheetP/E ratioPrice Earnings RatioPDsProbability of DefaultROAReturn on AssetsROEReturn on EquityRTGSReal Time Gross SettlementRWARisk Weighted AssetsS&PStandard and Poor'sSMEsSmall and Medium sized EnterprisesUCITSUndertakings for Collective Investment in Transferable SecuritiesUKUnited KingdomUNUnited NationsUSUnited States	MGS	Malta Government Securities
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RWARisk Weighted AssetsS&PStandard and Poor'sSMEsSmall and Medium sized EnterprisesUCITSUndertakings for Collective Investment in Transferable SecuritiesUKUnited KingdomUNUnited NationsUSUnited States	RTGS	Real Time Gross Settlement
S&PStandard and Poor'sSMEsSmall and Medium sized EnterprisesUCITSUndertakings for Collective Investment in Transferable SecuritiesUKUnited KingdomUNUnited NationsUSUnited States	RWA	Risk Weighted Assets
SMEsSmall and Medium sized EnterprisesUCITSUndertakings for Collective Investment in Transferable SecuritiesUKUnited KingdomUNUnited NationsUSUnited States	S&P	Standard and Poor's
UCITSUndertakings for Collective Investment in Transferable SecuritiesUKUnited KingdomUNUnited NationsUSUnited States	SMEs	Small and Medium sized Enterprises
UKUnited KingdomUNUnited NationsUSUnited States	UCITS	Undertakings for Collective Investment in Transferable Securities
UN United Nations US United States	UK	United Kingdom
US United States	UN	United Nations
	US	United States

## **GOVERNOR'S STATEMENT**

The events of the past year have served to reinforce the view that the repercussions of a financial crisis are more pervasive and long-lasting, and potentially more damaging than in the case of recessions triggered by other causes. This third edition of the *Financial Stability Report* analyses the risks and vulnerabilities of the domestic financial system against a background of on-going tensions in international financial markets, fuelled by the euro area sovereign debt crisis. The importance of maintaining public debt dynamics under control, through sound fiscal policy cannot but be reaffirmed, as the experience of other countries shows that profligate public finances can pose a serious threat to financial stability. Although the Maltese financial system has been resilient to the global crisis, it is not immune from shocks, be they exogenous or endogenous.



The Bank has recently launched the Forum for Financial Stability which

will analyse in a more structured manner topical issues with all financial sector stakeholders. This is taking place at a time of radical change in the regulatory and supervisory environment at both European and global levels, reflecting the need for greater awareness of systemic risks and for enhanced efforts at risk mitigation and resilience building. The *Financial Stability Report* provides an up-to-date assessment of the main risks and vulnerabilities present in Malta's financial system and the Bank's recommendations as to how such risks could be addressed.

The *Report* concludes that during 2010 Malta's financial system continued to exhibit a high degree of resilience, even if not all economic sectors benefitted from the economic recovery experienced during the year. Although credit growth decelerated, the property sector receives particular attention since the buoyant activity registered in earlier years is unlikely to repeat itself in the short to medium term. The debt-servicing capacity of other sectors may also come under pressure depending on the duration of the current geopolitical tensions in the North African region and the future path of interest rates. The *Report* identifies two main vulnerabilities, namely heightened credit risk and persistently high concentration risk on both side of banks' balance sheets, owing to large exposures to the real estate sector and the relatively high proportion of shortterm, and therefore potentially volatile, deposits in total deposit liabilities.

Under these conditions, banks should expand their provisioning levels commensurately with the heightened credit risk and reduce concentration risk by further strengthening their capital buffers. This could be achieved either through a review of dividend policies or through the fresh issue of equity. Furthermore, it would also be prudent to reduce any maturity mismatches. Banks are also encouraged to take on board the Basel Committee's and the Capital Requirements Directive's proposals on capital and liquidity requirements and to take early steps to ensure a smooth transition to the new, tighter regulatory regime.

The *Report* also confirms that banks maintain strong capital adequacy and liquidity ratios. It also states that univariate stress tests have confirmed the ability of the banks to withstand extreme but plausible shocks.

Compared to last year, identified risks have either remained stable or have increased. Overall, financial stability prospects in Malta will remain challenging during 2011 and certain risks could heighten further. This underscores the need for further efforts to improve institutional resilience.

Michael C Bonello

CENTRAL BANK OF MALTA

Financial Stability Report 2010

## **OVERVIEW**

The *Financial Stability Report 2009* had confirmed that the Maltese financial sector was resilient, but was likely to face further challenges in the short to medium term. The extent of these challenges mostly depended on the strength and sustainability of economic recovery. The contraction in economic activity during 2009 exerted pressure on the debt-servicing capacity of the non-financial sector, and as a result non-performing loans (NPLs) and loan rescheduling had increased. The 2009 *Report* identified that the significant rise in both household and corporate non-performing loan ratios was not matched by a similar increase in loan loss provisioning by banks. The *Report* also noted that the deceleration in both household and corporate credit growth resulted in a slower aggregate bank balance sheet expansion. During 2009 the banks did not depart significantly from their traditional business model, continuing to rely strongly on retail deposits to finance their lending activities while diverting excess liquidity into high quality securities. The *Report* had also confirmed that the aggregate profitability of the banking sector improved during the year and that the financial sector was robust, with strong capital adequacy and liquidity ratios and with univariate stress tests confirming the ability of the banking sector to withstand extreme but plausible shocks. The outlook for financial stability in Malta was deemed to be challenging in view of uncertain global economic prospects and the vulnerabilities identified in the *Report*.

The *Financial Stability Report 2010* concludes that the financial sector remained resilient throughout the year. However, in spite of an overall marked improvement in macroeconomic conditions in Malta, not all economic sectors benefitted from the recovery. This was reflected in a further increase in credit risk, particularly in the construction and household sectors. Also, credit demand growth decelerated. The main vulnerability of the financial sector therefore remains credit risk as well as concentration risk on both sides of the balance sheet of credit institutions. Credit risk may impact the banks in the event of a number of tail events, including a severe economic downturn or a significant drop in property prices. The *Report* confirms that the banking sector remains resilient to these tail events through a series of univariate stress tests. Despite higher net interest income, the banks' overall profitability decreased during 2010 mainly owing to lower revaluation gains. The financial sector remained resilient and the analysis reaffirmed the strength of its capital and liquidity buffers.

The current assessment indicates that financial stability prospects will remain challenging. Global macroeconomic conditions have improved, but the outlook for further growth is uncertain in terms of its sustainability and depth. Certain risks remain in major sectors in view of the feedback loop between the economy and the financial sector.

In view of the banks' vulnerability to credit and concentration risks, the banking sector should strengthen provisioning levels. Furthermore, in view of ongoing international proposals to ensure that banks have sufficient loss-absorbing capital and liquidity, banks must take steps to ascertain that they are able to meet these new requirements. Table 1 below highlights measures to mitigate the main financial stability risks as identified in this *Report*.

Table 1 KEY RISKS IN THE FINANCIAL SYSTEM	
Risks	Policy measures required
Credit risk	Increase in provisioning levels
Concentration risk	
loan portfolio	Strengthen capital through a review of the banks' dividend policy or increasing Tier 1 capital
collateral	Appropriate haircuts
very short-term maturity structure of deposits	Lengthen maturity structure
Regulatory changes (CRD IV)	Evaluate potential impact to take timely measures to meet new requirements

#### Macroeconomic environment

In 2010 the external economic environment improved, although concerns regarding the sovereign debt crisis escalated further. Many EU governments were forced to undertake considerable fiscal austerity measures to reassure financial markets of the long-term sustainability of their public debt. Such measures however could possibly endanger economic recovery in the short term. In addition, significant downside risks to growth exist as a result of the risk of a disruptive unwinding of trade and currency imbalances and geopolitical developments. In this respect, the global financial environment remains subject to uncertainties.

The international economic recovery enabled a strong pick-up in the Maltese economy, although this was not broad-based. Against this background, corporate profitability improved, although specific industries, such as the construction sector, lagged behind. In spite of higher profits generated by the corporate sector as a whole, the debt servicing capacity of a number of economic sectors, in particular the construction sector, deteriorated. The outlook for the corporate sector is likely to remain challenging for export oriented industries in view of uncertain global macroeconomic conditions and difficulties in the construction sector as a result of structural imbalances in the sector.

With regard to household credit demand, the favourable stimulus from a still low interest rate environment appears to have been partially dampened by uncertainties relating to disposable incomes and pessimism on the property market, thus leading to some deceleration. Nevertheless household indebtedness continued to increase at a faster rate than employment income, while repayment pressures are positioned to intensify in view of higher interest rates and inflation. In this respect concerns about the increase in indebtedness are partially muted by generally conservative loan-to-value (LTV) ratios at loan origination. Furthermore, trends in the house price index indicate that the fall in property prices is tending to level off, although there could still be some degree of overvaluation.

#### The financial system

The structure of the financial sector remained broadly stable, dominated by the banking sector. Debt issuance in the capital market remained buoyant, underpinned by ample liquidity and favourable market conditions. Nevertheless, the secondary market remains thin and illiquid.

In 2010, the balance sheet growth rate of the banks rebounded to 5.6% compared with 1% in 2009. Lending to the non-banking sector remained predominant in the banks' asset portfolio, backed by increasing retail funding. Nevertheless, credit growth eased somewhat, reflecting lower investment activities and tight credit standards. Indeed, while mortgage lending remained strong, corporate lending decelerated somewhat. The latter relates predominantly to the construction and real estate sector, in view of the sluggish property market and the structural imbalances between supply and demand of property. The investment portfolio orientation remained balanced between domestic and foreign securities, although some flight to quality behaviour became evident during the year with banks reverting more to Malta Government Securities (MGS) and away from private foreign issued debt. Most of the banks' exposure to stressed countries, amounting in total to less than 25% of Tier 1 capital is in respect of interbank transactions.

Credit risk, which intensified further in 2010, remains the major risk for the banking sector with the NPL ratio peaking since 2005. The protracted weakness in the property market was a major determinant of the deterioration in asset quality, which led to a rise in NPLs. NPLs have also increased in respect of household debt, driven by downward pressures on debt repayment capabilities. The heightened level of credit risk was not matched by an equivalent increase in provisioning levels, which at the current juncture are deemed low. The persistently high levels of concentration in the banks' loan portfolio further exacerbate the level of credit risk. In this respect, a potential risk relates to the large exposures towards public sector entities in the transport and utilities sector.

Banks continue to operate a traditional business model and fund their operations predominantly through customer deposits, which expanded at a faster rate than customer loans. The high reliance on short term

deposits eventually may come under pressure from increased competition from new products and market players.

Interest income remained the predominant source of earnings for the banks, and improved during 2010. However, profitability decreased as higher net-interest income failed to compensate for lower valuation gains and higher provisioning charges. The fall in profit was reflected in a lower Return on Equity (ROE) and Return on Assets (ROA), although standing higher than the average of the last five years.

The solvency ratios of the banking sector remain well above the regulatory limit, despite a minor fall as a result of the introduction of new prudential filters. The level of capital allocation adequately covers Pillar I risks but more capital may, in certain instances, be required for some Pillar II risks, mainly concentration risk. The leverage ratio remained stable, while the risk profile somewhat improved as banks shifted to less risky assets. Univariate stress tests confirm that the banking system in Malta is able to withstand shocks from plausible but extreme events.

While currently adequate, capital buffers may need to be further strengthened in future particularly in view of the new regulatory regime and enhanced risk management policies. In this respect, banks are expected to continue adopting prudent risk management policies to strengthen their shock absorbing capabilities.

The performance of the insurance sector improved in 2010, underpinned by higher investment income and net premia, which were however partly offset by the considerable rise in net claims. Capital levels remained strong, while the investment portfolio continued to be regarded as conservative, despite being rather concentrated in MGS. Risks to financial stability stemming from the investment fund sector remained low.

#### **Policy responses and implications**

The implementation of Basel III regulations will contribute to higher bank resilience and soundness. This new regulatory regime will be phased in gradually until 2019. In this context, the Tier 1 capital of the banks approximates the core Tier 1 definitions of Basel III, although some of the proposed adjustments may push it closer to the limit. In this respect a gradual transition by banks to greater resilience through retaining earnings would be the appropriate policy response. Furthermore, banks need to review the new liquidity requirements, as also proposed by Basel III, and the implications on their liquidity strategy.

The European Systemic Risk Board (ESRB) was established in January 2011 within the European System of Financial Supervision, with the objective to identify and mitigate systemic risks within the EU. The new regulatory framework is expected to strengthen and harmonise regulation across the EU and could bring about new legislative initiatives to reinforce both micro and macro-prudential oversight.

#### Main risks to financial stability and outlook

The main risk to financial stability in Malta stems from a possible weakening in global macroeconomic conditions, which would negatively impact the domestic economy. Indeed, risks remain across major sectors in view of the feedback loop between the economy and the financial sector. The realisation of such risks would have a negative impact on banks particularly in view of their vulnerability to credit and concentration risks. Related risks, which can result in a deterioration in the asset quality of the banks' credit portfolio, include a significant upward shift in interest rates or an undue lengthening in the political turmoil in North Africa. Other vulnerabilities of the banking sector stem from the extensive short-term structure of their retail deposits, which in the event of sustained competition could result in either a depletion of such funds or an increase in interest costs. Valuation losses as a result of the ongoing sovereign debt turmoil can also impact earnings. Infrastructural risks stemming from structural illiquidity and lack of depth in the domestic market are also present.

However, the financial system has strong capital and liquidity buffers. Univariate stress tests confirm that the banking sector is largely resilient to a reversal in economic conditions, deterioration in credit quality and a significant fall in house prices. Financial stability prospects will nevertheless remain challenging.

# 1. THE MACRO-FINANCIAL ENVIRONMENT

As expected, the external economic environment improved compared with the previous year. Nevertheless, there remained concern about the fiscal position of several European governments and, as a result, the financial environment continued to be characterised by significant uncertainties.

While the international economic recovery has enabled a rather strong pick-up in the Maltese economy, the improvement was not broad-based. Hence, pockets of vulnerabilities in the domestic economy still persist and repayment difficulties faced by household and corporate sectors are becoming more evident.

Looking ahead, further recovery is anticipated; however, the re-emergence of international market uncertainty vis-à-vis sovereign risk can lead to cross-border contagion and heighten banks' vulnerabilities.

On the local front, the possible deterioration in external economic conditions, in conjunction with a reversal in the interest rate cycle, may create adverse knock-on effects on the Maltese economy and, thus, on the macro-financial environment in which banks operate.

### 1.1 The external financial and macroeconomic environment

The economies of the euro area, of the United Kingdom and of the United States resumed growth, albeit moderate, during 2010, expanding by 1.7%, 1.3% and 2.8% respectively. In the euro area and UK, this was not sufficient to compensate for the contraction recorded in 2009 (see Chart 1.1). Consequently unemployment rates remained elevated, in the region of 10% and 7.8%, respectively, in the euro area and in the UK, and 9.4% in the US.

At times financial uncertainty mounted, with markets suffering occasional bursts of volatility, particularly in view of the intensification of the sovereign debt crisis, which in 2010 directly hit Greece and Ireland and threatened to spread to other euro area countries.<sup>1</sup> Markets reacted positively following the implementation of coordinated support measures and the publication of the 2010 EU-wide stress test results in July. Although the risk of contagion to the financial sector appeared to diminish, this improvement was short lived. Indeed, markets' concern about the uneven and uncertain economic recovery returned, particularly as fiscal prob-

lems in the euro area re-escalated. The turbulence in Ireland later in the year raised doubts about the actual health of some banks and brought sovereign risk again to the fore. Fiscal sustainability concerns stemming from the recapitalisation of banks thus resurfaced again. Indeed, sovereign debt rose significantly in some countries, not only as a result of higher fiscal expenditures and lower tax revenues but also in view of the costly rescue of ailing banks, in some cases significantly exceeding original estimates. Besides contributing to market volatility, these developments led to a flight to safety away from countries that were deemed as more risky.2



<sup>&</sup>lt;sup>1</sup> Indeed, in April 2011 Portugal was the third euro area country to seek a bailout.

<sup>&</sup>lt;sup>2</sup> Refer to the section on market structure in Chapter 2 of this *Report* for further details and assessments relating to the international financial markets.

Despite the weak economic recovery, many governments were thus compelled to implement considerable fiscal austerity measures aimed at reassuring financial markets about the long-term sustainability of their public debt.

These developments were a stark reminder of the close interlinkages between sovereign risks and the financial system, as well as of potential cross-border spillover. Indeed, risk premia of banks and sovereigns moved in tandem. In this respect, a strong fiscal position is a precondition for safeguarding financial stability, although, in the short term, such fiscal tightening measures may exert pressure on the economic recovery. The latest outlook suggests that worldwide economic growth will remain weak, at around 3.5%.<sup>3</sup> Moreover, the modest growth expected in 2011 in a number of advanced countries is partially masked by the high growth projected for emerging market economies. Indeed, in the euro area, growth is forecast to reach only 1.5% in 2011. In the UK and the US it is expected to reach 2.2% and 2.1% respectively. In addition, significant downside risks to growth exist as a result of higher oil prices and of the possibility of a disruptive unwinding of trade and currency imbalances. Within the European context, the risk of contagion arising from a prolonged sovereign debt crisis and from a spillover effect from the developments in the Maghreb region is a further concern. Overall, the spectre of a scenario of longer than expected below-potential growth appears plausible, with the consequence that labour market conditions are likely to remain very challenging. Indeed, firms are poised to wait for a sustained boost in their order books before adding to their labour complement.<sup>4</sup>

The phasing-out plans from non-standard liquidity measures by central banks were largely postponed during 2010. Within the euro area, the ECB further expanded its range of non-standard tools with the launch of the Securities Market Programme. In tandem, the pan-European support framework was strengthened through the establishment of the European Financial Stability Facility (EFSF) which serves as a backstop facility in the event of sovereigns in distress. Furthermore, towards the end of 2010, the EU agreed to establish a new European Stabilisation Mechanism (ESM) to replace the EFSF in mid-2013. Under the new proposals, it may be possible to impose haircuts on bonds if a government is not able to service its debt. This possibility would shift some restructuring burdens onto private investors. However, despite the introduction of the new mechanisms, financial market conditions have not returned to normal.

Looking ahead, pressures can mount further as more countries may come under the scrutiny of financial markets. Furthermore, there is a reasonable possibility that the interest rate cycle will reverse its downward trend as inflationary pressures start to mount. Hence, the favourable environment associated with the record low official interest rates is unlikely to persist for very long.

## 1.2 The domestic economy

#### 1.2.1 The macroeconomic environment

Malta's Gross Domestic Product (GDP) rebounded by 3.7% during 2010, practically reversing the contraction recorded a year earlier (see Chart 1.1). The recovery was mainly export driven, aided by a small increase in investment. On the other hand, consumption declined. Sectors, such as financial intermediation, manufacturing, transport & communication, real estate, and hotels & restaurants, recorded a positive turnout, while the construction industry lagged behind. Labour market conditions improved, with the Labour Force Survey (LFS) unemployment rate ending the year one percentage point lower, at 6.2%. The Harmonised Index of Consumer Prices inflation accelerated steadily throughout the year, to 4% in December 2010, with components such as food and energy prices rising by as much as 5.6% and 10.4%, respectively.

The baseline growth outlook for the Maltese economy remains generally positive, although recent events in North Africa may impinge on this outlook and add further uncertainty. A pick-up in GDP of 2.5% in 2011 and

<sup>&</sup>lt;sup>3</sup> Source: Forecast are based on Eurostat data except for worldwide economic growth which is based on Consensus Data Forecast.

<sup>&</sup>lt;sup>4</sup> The Business and Consumer Survey Results (February 2011) published by the European Commission indicate that despite some improvement, order books are still negative.

2.9% in 2012 is anticipated. Despite possible lay-offs, unemployment is expected to remain stable. However, there are notable downside risks, particularly with respect to employment incomes. The halt in activities attributable to the turmoil in Libya (which accounts for 3.8% of total exports) as well as to any significant slowdown in the main tourist markets may have a negative impact on employment earnings. A high inflation rate, projected at around 2.5%, is also likely to add further pressure on real disposable incomes.

On the other hand, sovereign debt concerns appear to be contained. Current projections by the Central Bank of Malta indicate that public debt is expected to stabilise at just below 70% of GDP while the fiscal deficit is projected to narrow from 3.8% to 2.9% of GDP in 2011. Furthermore, Government intends to have a balanced budget with the deficit projected to decline to 1.4% in 2013 from 3.8% in 2010. Since virtually all debt is held by residents, and new issues have been generally oversubscribed, the country appears to be insulated from the risk of sudden changes in foreign investors' perceptions. While the country's sovereign credit ratings carry a stable outlook (S&P 'A/A-1'; FITCH 'A+'; Moody 'A1'), these are contingent on the ability of the Government to rein in public finances in line with its projections. As highlighted by the IMF in its 2010 *Article IV Consultation-Staff Report*, Government guarantees in respect of banking facilities relating primarily to the utilities and transport & storage sectors, equivalent to approximately 16% of GDP require prudent management given the challenging financial conditions being faced by these sectors.

#### 1.2.2 The household sector

#### Household indebtedness

Household debt rose from 47% in 2007 to 54% of GDP in 2010, close to the euro area average of around 56%.<sup>5</sup> However, during 2010 the growth of household indebtedness decelerated to around 7% in 2010 from 9.8% in 2009. Negative consumer sentiment and a marginal increase in interest rates may have contributed to this deceleration. The indebtedness remained at a level comparable with the country's stage of economic development, measured in terms of GDP in Purchasing Power Standards (see Chart 1.2).<sup>6</sup>

Consumer loans expanded by only 1.1%, decelerating sharply from the growth recorded in the previous years, 6.8% in 2009 and 13.1% in 2008. The average balance on consumer loans also shrank by almost 15% to an equivalent of under two months' average salary.<sup>7</sup> On the other hand, demand for mortgage loans remained buoyant, expanding by 8.5%, after having increased by 10.7% in 2009. Moreover, the average out-

standing house loan rose by 4.8% to an equivalent of 3.5 times the average salary. Survey data indicate that the LTV ratios at loan origination remained broadly stable, with the average standing at around 73%. The largest proportion of loans (38%) remained concentrated in the up to 60% LTV bracket with only 9% offered in the above 90% category.

# Financial and non-financial wealth

The higher debt burden assumed by the household sector was mitigated by a strengthening in the balance sheet of the sector since net financial wealth rose by 6.2%



<sup>&</sup>lt;sup>5</sup> The euro area average is based on household debt to euro area counterparties.

<sup>&</sup>lt;sup>6</sup> Source: ECB.

<sup>&</sup>lt;sup>7</sup> The average salary per annum stands at EUR14,466. Source: Labour Force Survey (NSO).

(see Chart 1.3). This was driven by a 6.4% increase in financial assets mainly as a result of a 3% rise in deposits (representing around half of total financial wealth) and also by additional holdings of domestic quoted securities, up by 16.3%.

#### Debt servicing capacity

Tighter margins (introduced by banks following loan risk reappraisal) have already translated into a higher average interest rate charged on household borrowing. This edged up by 14 basis points in 2010 and, in tandem with a higher stock of loans, contributed to a higher interest burden. Thus interest payments absorbed 5.1% of the compensation of employees in 2010, up from 4.7% in 2009 (see Chart 1.4). The majority of household loans carry a variable interest rate and, consequently, a turn in the interest rate cycle would result in a further increase in the interest burden.

Available flow data show that 5% of new mortgage loans were advanced to households with earnings in total of not more than EUR10,000, and which are estimated to carry a debt service-toincome ratio of some 32% (see Chart 1.5).8 Households with a high debt burden remain vulnerable to a reduction or loss of income, as well as to higher interest rates. The debt service-to-income ratios in the case of higher income brackets, households earning between EUR10,000 and EUR20,000, and between EUR20,000 and EUR30,000, are estimated at 22% and 15%, respectively.

During 2010 households appeared to be facing difficulties in servicing their debts. Indeed, the ratio of non-performing household loans edged up from 2.9% by 2009 to 3.1% at the end of 2010. The latter







Interest payments as % of compensation of employees —Mortgage WAI —Consumer WAI Sources: Central Bank of Malta estimates; NSO.

#### Chart 1.5 DEBT SERVICE BY INCOME BRACKET (EUR. per cent)



8 Stock data in relation to debt by income brackets are not available.

reflected a deterioration in the quality of consumer loans with NPLs in this category rising to 5.4% from 4.7%. The ratio of mortgage NPLs remained stable at 2.5% (see Chart 1.6). Higher consumer NPLs may indicate mounting pressure on household finances as households are likely to first default on their consumer loans ahead of mortgage loans. The lower quality of consumer loans can be viewed as a potential leading indicator of further financial strains ahead.



Chart 1.6

(per cent)

5.5

5.0

4.5

HOUSEHOLD NON-PERFORMING LOANS

Repayment pressures may intensify in the light of possible increase in interest rates.9 The lower income households are also more susceptible to repayment difficulties par-

ticularly if their debt increases. If the squeeze on real income persists, further increases in household NPL ratios are likely, both for mortgages and consumer loans.

#### 1.2.3 The Non-Financial Corporate sector

#### Profitability

Corporate profitability improved overall due to higher revenues, generated by better economic performance during 2010. Operating surplus rebounded by 21% (EUR343 million) with double-digit growth rates reported across a number of sectors such as hotels & restaurants, transport, storage & communication and manufacturing. However, the construction sector remained under pressure, suffering a 2% drop in its operating

surplus. Indeed, investment in private housing dropped significantly. At the same time, most companies listed on the Malta Stock Exchange (MSE) had a more muted benefit from improved economic conditions. On aggregate, these companies reported lower ROE and ROA compared with 2009, estimated at 0.14% and 0.06% respectively (see Chart 1.7).10 These companies, which do not include financial institutions, registered an estimated profit of just over EUR7 million.11

#### Corporate indebtedness

Bank borrowing by resident nonfinancial companies increased only modestly in 2010, up by 0.5%, a



Indeed, in April 2011 the ECB increased official rates by 25 basis points.

2010

2009

These estimates are based on data available as at 1 April 2011.

<sup>&</sup>lt;sup>11</sup> The sample consists of the 30 listed companies. Annual figures were estimated based on the assumption of identical second half performance in cases where such information was not vet available.

significant deceleration from almost 6% growth in 2009 and 15% in 2008. This may reflect a reluctance to invest given the uncertainty in export markets. It could also reflect the relatively tight credit standards adopted by banks.

Loans to the non-financial corporate sector accounted for around 73% of GDP as at end-2010, exceeding the euro area average of 51%. The overall private bank credit still remains substantial, and possibly excessive, when compared with the country's stage of development (see Chart 1.8).



The banking sector is the only avenue of external financing for SMEs

which however accounts for just 33.2% of the banks' corporate loan portfolio.<sup>12</sup> The bulk of bank credit, in absolute terms, is channelled to a subset of large corporates. In general the latter do not include Maltese subsidiaries of large multinationals. While this situation exposes lending banks to a restricted set of large borrowers, the latter may be more resilient in view of their diversified portfolio of activities.

Lower credit demand by the corporate sector was also reflected in a lower recourse to market-based funding. Such funding significantly decelerated during the year, also a result of the premature redemption of bonds by four listed non-financial companies. Still, during the year EUR62 million (2009: EUR 132 million) worth of bonds (net of redemptions) were issued by eight non-financial corporates, of which two were first time issuers.

#### Debt servicing capacity

The interest burden of the corporate sector remained stable in absolute terms with lower bank interest payments, which dropped by 2.7%, compensated by the increase in bond interest payments.

Loan repayment difficulties are evidenced by the share of resident corporate NPLs to total resident corporate loans. This jumped to 11.7% in 2010 from 8.4% in 2009. In absolute terms, resident corporate NPLs increased by a further 39% after having risen by 22.5% during 2009. The construction sector registered the highest increase in the NPL ratio, which rose to 23.4% in December from 10% in June. Another sector which continued to show a high NPL ratio was the accommodation and food service activities sector, though this ratio was unchanged at 12.3%. Likewise, the NPL ratios for the manufacturing and wholesale & retail sectors remained stable at 11%, while that for the real estate sector was unchanged at around 9%. Rising NPLs are likely to have an impact on the number of insolvencies. During 2010, 17 insolvency cases were recorded. All insolvencies related to micro enterprises, half of which within the information & communication sector, while the rest were in the accommodation and food service activities, manufacturing, real estate, and wholesale & retail sectors.

Going forward, the outlook for the corporate sector remains subject to notable risks, not least possible ramifications from the North African conflict. Property prices may likely also remain relatively stagnant for the period ahead. Given its strong ties to other sectors, a significant downsizing of this sector may be propagated to other business areas. Likewise, firms in low profitability and high financial leverage sectors may come under

<sup>&</sup>lt;sup>12</sup> According to results from the Survey on the Access to Finance of SMEs, as at June 2009, half of SMEs were involved in the services sector. The other half operated in the trade sector (26%), industry sector (15%) and construction sector (10%).

increasing pressure, particularly as the interest rate scenario is unlikely to remain as supportive as it was in recent years.

## **1.2.4 The real estate market**

The Central Bank of Malta's property price index, based on advertised prices, suggests that the process of falling prices (-2.7% in 2008 and -5% in 2009) may have levelled off as house prices rose, albeit marginally, by 1.1% in 2010. However it may be premature to confirm that the downturn is definitely over. From peak to trough house prices dropped by 7.6%, and at end-2010 were 6.6% lower than the peak attained in 2007.13 Survey results from real estate agents indicate that house prices remain overvalued, although by less than what had been perceived the previous year (see Chart 1.9). This notwithstanding, housing affordability remained relatively stable, owing to sluggish house prices and still low mortgage rates (see Chart 1.10).

Private housing investment was significantly lower when compared with 2009. The number of building permits issued by MEPA (a leading indicator of future activity) dropped by 16%. Furthermore, official statistics indicate that the number of contracts of sale registered with the Inland Revenue Department in





2008 and 2009 dropped by 18.1% and 3.9% respectively, while replies to the Bank's Real Estate Market Survey conducted in early 2011 confirm that the volume of sales continued to decline.

Concerns appear highest vis-à-vis the commercial property market, particularly in view of relatively high concentration risk with loans collateralised by commercial property accounting for around 30% of bank loans. <sup>14</sup> It is estimated that a number of large construction projects currently in progress will supply nearly 2,000 additional residential units which are slightly less than half the total property transactions in Malta for 2009. The slowdown in the property market reflecting an ongoing structural adjustment raises the credit risk associated with these projects. In particular, additional supply of housing units may extend the period of lull in property prices.

<sup>&</sup>lt;sup>13</sup> This estimate is based on the average index for the year.

<sup>&</sup>lt;sup>14</sup> Commercial property is usually defined as income-producing property, such as office buildings, restaurants, shopping centres, hotels, industrial parks, warehouses, factories, and residential property owned by, for example, a property company.

## **1.3 Conclusion**

Although the international macroeconomic environment has improved, there is still some uncertainty on the depth and sustainability of the recovery. If downside risks to global economic growth materialize and the unstable situation in North Africa persists, the Maltese economy could be negatively affected. Currently, the repayment capacity of the domestic non-financial sector is under pressure as household income and liquidity has become more strained. This may intensify further with respect of certain segments of the non-financial sector in the event of a hike in interest rates. Furthermore, the construction sector is likely to remain susceptible to further difficulties until property supply and demand become more balanced.

The most significant risks emerging from the macro-financial environment include:

-	A reversal in macroeconomic conditions and/or prolonged crisis in North Africa and Middle East impacting export industry and tourism sectors
	Protracted weaknesses in the construction and real estate related sector and propagation to other economic sectors
1	Worsening of the sovereign debt crisis in the euro area
•	Inflationary pressures leading to an upward trend in interest rates

Legend

Increased somewhat since the December 2009 FSR

# 2. THE FINANCIAL SYSTEM

### 2.1 Market infrastructure

### 2.1.1 Financial system structure

The financial sector in Malta contributed to around 7.5% of gross value added in 2010. It also employs about 4,800 people (3.3% of the gainfully occupied). Similar to several other EU countries, the largest component in the financial sector is the banking sector with assets equivalent to almost EUR15.3 billion, 83.4% of the assets of the financial sector (see Table 2.1). The insurance and investment fund sectors represent only 11% and 5%, respectively.

Contrary to what happened in other countries, in Malta no Government funded recapitalization operations were necessary to address the global financial crisis. Hence, state involvement in the banking system remained limited to 25% equity holding in one major credit institution. The MFSA, which is responsible for the supervision of the financial sector, remained the consolidating supervisor in respect of three of the seven systemically relevant banks. The remaining four are subsidiaries of cross-border banks and so are supervised by the regulatory authorities of their home countries on a consolidated basis.

In all, there are 25 credit institutions in Malta. Of these, 18 carry out operations mainly with non-residents while the other seven are considered as systemically relevant. Box 1 features an overview of those credit institutions not generally included within the normal assessment of the FSR and presents an analysis of possible financial stability risks that their activities could pose to the domestic financial system. Whereas systemically relevant banks have a strong retail focus, these institutions mainly concentrate on other activities, such as wholesale, trade finance and investment banking.

Banks domiciled in Malta do not have any subsidiaries licensed as credit institutions abroad – their direct presence being limited to one branch and representative offices, which remained constant at seven. As at end-2010, two insurance companies each had a branch abroad. While notifications for the provision of financial services from other EU Member States to Malta (under the passporting regime) increased by two in respect of credit institutions, and by 29 in respect of insurance companies (bringing their total to 214 and 375 respectively), only one branch is established in Malta under this regime. On the other hand, the number of UCITS registered in Malta fell by almost a quarter to 382. In respect of passporting out of Malta, the number of insurance companies increased by 4 to 40 but remained constant at eight and ten, respectively, in the case of credit institutions and UCITS.

Table 2.1											
STRUCTURAL DATA OF THE DOMESTIC FINANCIAL SYSTEM											
	2007	2008	2009	2010							
Total assets of the financial system (EUR millions)	16,501	16,772	17,197	18,292							
GDP at current prices (EUR millions)	5,462	5,904	5,851	6,246							
Total assets of the financial system (as a % of GDP)	302	284	294	293							
Ratio of growth in total assets to GDP growth	0.3	0.2	-2.8	0.9							
Total assets (as % of GDP)											
Credit institutions	252.6	242.3	247.0	244.3							
Insurance companies	28.0	26.6	31.0	32.5							
Collective investment schemes	18.0	13.1	13.7	13.7							
Hedge funds	3.2	1.9	2.0	2.1							
Financial institutions	0.3	0.2	0.2	0.2							

# **BOX 1: NON-SYSTEMICALLY IMPORTANT BANKS**

Malta is host to a number of non-systemically important banks, which offer a wide range of banking services. These institutions are regulated and supervised by the MFSA. They have very limited links to the domestic economy and their participation in intermediation in Malta is marginal. Furthermore, interlinkage with the domestic financial sector is minimal since these institutions primarily deal on the international market.

For financial stability purposes, in the *FSR* the Central Bank of Malta closely focuses on institutions considered as systemically relevant. These financial institutions are included in the core analysis of the *Report* with the selection decision based on the size of the institution in relation to the domestic economy, on connectedness and substitutability. Nevertheless, it is important that risks throughout the financial system are adequately monitored and that authorities have the necessary resources to keep up with the complexity and size of the system as it expands. The Box supplements the main risk assessment included in the *Report* and evaluates non-systemically important banks to assess any possible systemic risks posed by these credit institutions.

#### The components of the non-systemically important banks

As at end-2010, 18 banks were classified as non-systemically important of which nine are subsidiaries of foreign banks (EU: seven; non-EU: two); the MFSA is the ultimate supervisor in respect of six banks; and three institutions offer services as branches (EU: one; non-EU two). The size in total assets of these banks varies considerably, from EUR5 million to over EUR10 billion, a factor which is partly determined by the stage of operations and by the extent and type of services offered. The institutions are a diverse ensemble of banks with business ranging from trade finance to investment banking, interbank and other international market activities. The business profile of the institutions shapes their balance sheet structure, which is rather distinctive in a number of cases; for example, some have virtually no customer loans, or a loan portfolio directed almost entirely to connected parties. In some cases, the balance sheet structure is geared towards high yielding securities, approximating the activities of investment banking. Some others offer specific services or cover niche markets, and are characterised by few high net worth customers. In view of these factors, on an individual institution basis, concentration risks are high but the sector itself is diversified.

## Potential propagation of risks through interlinkages with the domestic economy

Resident assets and liabilities account for about 1% of the sector's balance sheet (see Chart 1). Resident customer deposits - practically equally split between households and corporates - amount to EUR288 million, around three-guarters of the banks' resident liabilities. Although such deposits have increased since Malta's adoption of the euro in view of competitive rates offered by some institutions (enabled through higher yielding activities abroad), these deposits still represent a minimal source of funding. For the system as a whole,



such deposits account for just 3% of the resident deposit base of all banks in Malta, but it is likely that further growth will be observed in future.

Another source of funding for these banks is through the MSE. One bank has supplemented its capital base through the issue of equity, amounting to almost EUR100 million (equivalent to 3% of the outstanding equity issued on the MSE). Furthermore, three banks also tapped the local bond market. In such cases, bonds issued and listed on the MSE exceed EUR85 million, two-thirds of which was issued in 2010. Still, the overall outstanding amount is considered as low, equivalent to less than 5% of the listed private sector bonds and equity as at end-2010. Resident households hold 44% of total bonds and equity issued by these banks, but these represent only 0.7% of household net financial wealth. Thus, in the event that one of these institutions fails, the effect on wealth is likely to be modest and consequently with limited direct financial stability implications. At the same time, only 2% of issued bonds and equity are held by the rest of the banking sector in Malta and thus potential adverse feedback of risk through this channel is also low.

Likewise, credit extended to the domestic market is low, slightly more than EUR31 million, and accounts for only 0.4% of domestic credit. In effect these banks are only a peripheral supplier of domestic credit. Interbank exposures with the systemically important banks, and indeed with the banking sector as a whole, are also limited in absolute terms, amounting to around EUR22 million. Although such banks have a more material holding of domestic sovereign bonds (EUR50 million), market pressure in the event of disposal of such securities is likely to be muted since these only represent 1.3% of the outstanding MGS.

The net position of resident assets and liabilities held by these banks implies that these banks are net absorbers of funds, with liabilities exceeding assets by over EUR275 million, equivalent to around 4.0% of GDP.<sup>1</sup> At the current juncture this situation does not appear to be exerting adverse effects, and is unlikely to threaten the banks' funding strategy.

#### **Inherent risks**

An inherent risk faced by these banks stems from their funding structure. As demonstrated by the global financial crisis, over-reliance on market/wholesale funding is subject to potential liquidity risks if the source of funding dries up or becomes very expensive. The sector relies to a large, though varying extent, on market/wholesale funding, including intragroup funding. Indeed, the latter supports 9.4% of total assets, while around one-fourth is financed via funds provided by other unrelated credit institutions.<sup>2</sup> Eurosystem funding finances around 2.8% of total assets. A scenario of a sudden drain of global liquidity could thus expose individual institutions to liquidity risk. In such a scenario intragroup funding can also be withdrawn suddenly if the group faces liquidity constraints, which could lead to a redirection of funds towards home exposures. It is however noted that, generally, there was no curtailment of such funding, even at the peak of the global crisis in 2008.

These banks have a significant exposure to foreign countries, corresponding in general to the home country of the parent institution, in particular to Turkey (see Chart 2). Over two-fifths of the foreign asset exposure is in respect of claims to monetary and financial institutions, predominantly parent and related institutions. Exposure to countries which are currently experiencing fiscal distress amounts to an aggregate of around 10% of total assets, although in some cases this exposure rises to over 50%.<sup>3</sup> Indeed, about 75% of the banks' exposures to stressed countries consist of claims on financial counterparts, whereas the rest mainly include securities issued by other entities, including sovereigns. Most of the securities representing an exposure to stressed countries are classified as held to maturity and, hence, are sheltered from short-term volatilities. Some of these banks have large shareholdings, varying from less than 1% of total own funds to over 50%, in a wide spectrum of financial corporates, including finance companies, factoring, trusts,

<sup>&</sup>lt;sup>1</sup> This estimate compares resident liabilities (excluding eurosystem funding and "other resident" liabilities) with resident assets (excluding minimum reserve requirements pertaining to non-resident deposits and "other resident" assets).

<sup>&</sup>lt;sup>2</sup> Intragroup transactions between the three branches operating in Malta and their head office are excluded.

<sup>&</sup>lt;sup>3</sup> The countries considered are Portugal, Ireland, Greece and Spain. Spain has also been included in this analysis following market pressure on this country in view of the current phase of economic and financial difficulties.

investment funds and special purpose entities.

A potential channel of contagion exists through the Deposit Compensation Scheme (DCS) in the eventuality of one of these banks being unable to repay funds to its depositors. According to the relevant directive, the DCS covers not only eligible deposits of resident households and small companies but also those of non-residents.4 The Scheme is required to pay out eligible depositors if the competent authority determines that an institution is unable to meet its obligations or when the Courts have ordered a winding-up or liquidation of the institution.



Although the share of eligible deposits held by these non-systemically important banks is only 4% (just over EUR300 million), the potential payment in the event of a hypothetical default, both in aggregate and in some cases even for individual institutions, exceeds the available funding of the DCS. This implies that in such cases, the Scheme may require additional funding from participating banks.<sup>5</sup> The probability of such an event is currently considered as low. However, in such an extreme event, additional funding requirement could give rise to a potential systemic risk since defaults by these institutions can propagate liquidity risks through the financial system, as well as possibly on public finances and on the economy in general.

It is important that such institutions remain sufficiently robust in terms of solvency and liquidity. Indeed, the Tier 1 capital ratio of this sector is relatively high, ranging from 11.5% to over 153%, with the median standing at almost 35% (see Chart 3). The leverage ratio (i.e. assets to capital and reserves) stands at 3.1, although with wide divergences across the sector, ranging from a high of 24 to a low of 1.6 In 2010, the overall ROE of this sector stood at 3.0% and the ROA at 1.0%, with the lowest quartile ROE and ROA standing respectively at 0.8% and 0.4%.

Given the relatively high reliance on wholesale funding, the liquidity



<sup>&</sup>lt;sup>4</sup> Eligible deposits include the full amount of deposits which fall within the DCS. The covered deposits are the eligible deposits up to the individual coverage level of EUR100,000 per eligible depositor.

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<sup>&</sup>lt;sup>5</sup> Refer to Subsidiary Legislation 371.09 Depositor Compensation Scheme Regulations.

<sup>&</sup>lt;sup>6</sup> The solvency and leverage ratios exclude the three branches, a bank which at present operates with a large capital base and a corresponding zero-risk asset portfolio, and another bank which started operations in the last quarter of the year.

structure differs somewhat from that of domestic banks. Indeed, customer deposits do not fully cover customer loans, as indicated by customer deposits-to-loans ratio of almost 80%. The proportion of liquid assets is low in relation to the balance sheet value standing at around 7%, but rather high in relation to short-term liabilities (73%). This indicates that, on average, these banks have long term obligations, mitigating somewhat rollover risks in case of funding requirements.

### Conclusion

In common to all banks, the non-systemically relevant banks are vulnerable to a common shock independent of their business orientation; however, the systemic risks posed by this sector are assessed to be low. Domestic credit supply is minimal, resident deposit taking is low and substitutability is high. In addition, a high proportion of the business is backed by high quality capital. Some of these institutions are controlled by large cross-border banks. Many primarily perform group activities so that interconnectedness with the rest of the economy is minimal, while the exposure to investment groups is generally low. This significantly mitigates the possibility of adverse spillover effects. The identified channel through which vulnerabilities in this sector can be transmitted to the domestic financial system and to the economy is primarily through the DCS, via *ex-post* special contributions by other banks, in the event that the DCS has insufficient funds. Second round effects are mainly limited to reputation risks. Excluding non-systemically important financial institutions, the small market size naturally predisposes the country to elevated concentration across the entire spectrum of financial services. Although declining marginally, the banking sector's Herfindahl-Hirschmann Index (HHI) exceeds 3000 (almost three times the EU level), with two credit institutions (a domestically-owned bank and a foreign subsidiary) dominating the market.<sup>1</sup> In spite of a marginal decline in their combined market share, these two banks still provided almost 86% of credit to resident corporates and households, and tapped an equivalent share of resident customer deposits. Some interlinkages exist between the banking and insurance sectors. The latter consists of eight domestically relevant institutions, three involved in life insurance and five in non-life business. Concentration is even more pronounced in the insurance sector, with its HHI reaching almost 4000 with the largest two companies holding around 82% of the sector's assets.

### 2.1.2 Market structure

#### Market performance

The MSE index generally traded within a narrow range but with occasional bouts of volatility. Following a downturn in 2008 and a partial recovery in 2009, the index ended 2010 10% higher but declined by 8.4% in the first quarter of 2011 (see Chart 2.1). During the period 2008-2009 the MSE broadly mirrored movements of market indices in major international markets but in 2010 such patterns were less evident.

Since the onset of the global financial crisis, banking sector equity indices have lagged behind broader market indices, besides being among the more volatile components of the MSE Index. Despite not being directly hit by the crisis, equity prices of Maltese banks broadly followed similar patterns of those abroad but with more volatility. During 2010, the bank index climbed by 8.7% while the P/E ratio of the banks listed on the MSE decreased from the December 2009 ratio of 17.0 to 14.6.<sup>2</sup> Comparing this ratio with that of the UK as reflected in the FTSE, the latter shows a higher ratio of 23.6 at the end of 2010.<sup>3</sup> Malta's lower ratio reflects the positive earning environment of the banks quoted on the MSE and does not reflect any market concern about the financial condition of these banks. At the same time, the divergence in levels may also be attribut-

able to the insularity of the domestic market. Meanwhile volatility of corporate and Government bonds listed on the MSE was muted as these investments are generally held to maturity and are rarely traded.

# Market issuance and capitalisation

Market capitalisation expanded by around 10% during 2010 to EUR8.4 billion, equivalent to 134% of GDP, almost five percentage points higher than at the end of 2009. The increase was mainly driven by the higher issuance of MGS. Demand for equity and bonds issued on the MSE remained buoyant throughout the year with most issues being oversubscribed. This largely



<sup>&</sup>lt;sup>1</sup> Herfindahl-Hirschman Index is defined as a measure of market concentration calculated by squaring the market share of each firm competing in a market, and then summing the resulting numbers. The HHI number can range from close to zero to 10,000. A market with an HHI of less than 1,000 is considered to be competitive; a result between 1,000-1,800 reflects a moderately concentrated marketplace; whereas a result of 1,800 or greater reflects a highly concentrated marketplace.

<sup>&</sup>lt;sup>2</sup> The calculation of the P/E ratio takes into account the performance of a bank not considered as systematically important.

<sup>&</sup>lt;sup>3</sup> Source: www.ft.com. As at cut-off date, the FTSE bank P/E ratio stood at 16.1.

reflects ample liquidity available for investments issued on the primary market.

The issuance of MGS proceeded smoothly throughout the year and continued to benefit from strong demand. Based on the initial earmarked amounts, the bid-to-cover ratio averaged 2.2 (2009: 1.7). New Government issues of MGS amounted to a net EUR400 million. It should be mentioned that the benign environment for issuing MGS may deteriorate in future years and rollover pressures may increase. Though the value of bonds issued by the private sector and by Government to be issued



during 2011 is somewhat limited, the market could face pressure in subsequent years as the amount of MGS maturing becomes quite substantial (see Chart 2.2).<sup>4</sup> Furthermore at least an additional EUR400 million will be required between 2011 and 2013 to finance the projected fiscal deficits for the year.<sup>5</sup> Meanwhile credit institutions will also be expected to rollover their bond issues equivalent to around EUR240 million between 2017 and 2020. At the current juncture, concerns about possible crowding-out effects are limited, though pressures may still arise as banks start to take steps to meet the more stringent Basel III requirements regarding capital.

Debt issued by the Maltese Government is predominantly held by residents, with holdings of foreign investors accounting for less than 3% of outstanding MGS. This shelters the country from possible abrupt changes in international market sentiment. Sovereign debt holdings remain concentrated across a restricted set of investors, with the banking sector accounting for the largest share of outstanding MGS (see Chart 2.3).

Although this generally goes in line with the Basel III proposals addressing banks' liquidity management, a concentrated holding in one class of assets increases the possibility of adverse feedback loops between the fiscal and the banking sectors, particularly in the event that the rating or market price of such assets comes under pressure. It is important therefore that the level of Government debt holding of banks are monitored closely to ensure that concentration risks do not put pressure on the balance sheet of the banks concerned.

Issuance activity (around EUR300 million) by the private sector was again buoyant in 2010, following



<sup>4</sup> The accumulation of MGS maturing concurrently is part of a strategy to increase the average size of bond in order to increase marketability.
 <sup>5</sup> Source: Budget Speech 2011.

the record year issuance of 2009, due to favourable market conditions and to a possible upward movement in interest rates.

The banking sector continued to be the largest sectoral issuer in the private bond market with one-third of the outstanding amounts. The three largest groups of non-bank companies have more than 50% of the remaining outstanding bonds. Due to market concentration, and in order to increase market confidence and improve transparency, thereby enabling better informed and less risky investment decisions, in 2010 the MFSA issued Listing Authority Policies. These established tighter rules to be followed in certain bond issues and are intended to mitigate refinancing risks and to enable a better evaluation of the issuers' financial position.<sup>6</sup>

#### Market liquidity

Secondary market depth and liquidity improved somewhat in 2010 as the monthly average value of transactions increased from EUR34 million to EUR43 million. Liquidity in Government securities transactions continued to be limited although over the year the turnover ratio dropped from 0.154% to 0.147%.<sup>7</sup> On the other hand, secondary market trading in corporate bonds registered higher activity, both in terms of transactions which rose by about 34%, and as a percentage of total market capitalisation. Concurrently, the average weekly Hui-Heubel Ratio (HHR) for the two most liquid equities (HSBC Bank Malta plc and Bank of Valletta plc) quoted on the MSE improved slightly when compared with the previous two years. These developments confirm an improved, but still limited, depth and resilience in the market. Overall, apart from MGS, which benefit from the role of the Central Bank of Malta as market-maker, securities quoted on the MSE remain subject to the recognised limitations of a small-sized market, namely thin trading and thus illiquid conditions.

#### Yield spreads

Since the onset of the sovereign debt crisis, risk premium differentials have widened further, increasing

the costs of borrowing for some governments within the EU (see Chart 2.4). Public finances have been under unprecedented strain in most euro area countries, ultimately necessitating a bailout in the case of Greece and Ireland. These two countries still continue to record the highest yields with the ten-year rate closing 2010 at 12.6% and 9.2% respectively. The Portuguese ten-year yields ended the year at 6.7%.8,9 The rates as at 11 March 2011, particularly for Ireland and Portugal, continued to rise reaching 9.7% and 7.8% respectively, with the spreads versus the German Bund continuing to widen further.



<sup>&</sup>lt;sup>6</sup> The policy requires issuers of bonds to set up a sinking fund representing assets which the issuer would intend to use for repayment of (or part thereof) the capital due on maturity of the debt. This requirement does not apply to government bonds; to financial institutions subject to the Capital Requirements Directive or the Solvency II Directive; to bonds secured by easily realisable assets; and to bonds covered by an acceptable credit rating. The policy also requires that applicants for admissibility to listing of corporate debt securities aimed at the local retail investors demonstrate their financial soundness and strength to the Listing Authority.

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<sup>&</sup>lt;sup>7</sup> The Market Turnover Ratio is a measure of market liquidity. The ratio shows the extent of trading in the secondary market relative to the amount of outstanding bonds or equities.

<sup>&</sup>lt;sup>8</sup> The spreads vis-à-vis the ten-year Bund were 961 bp, 628 bp and 373 bp for Greece, Ireland and Portugal respectively as at end-2010.

<sup>&</sup>lt;sup>9</sup> Portugal benefitted from a bail-out package in May 2011.

In Malta, the ten-year benchmark yield curve shifted slightly downwards by the end of 2010 compared with the previous year. Corporate sector yields decreased through all maturities, but not to the same extent as those of MGS. Hence, spreads between the corporate bonds and MGS maturing between one to three and five to seven years widened slightly, to 447 and 313 basis points, respectively. Spreads on longer dated bonds (maturing between seven and ten years) narrowed to just 166 basis points, reflecting the fact that long-term corporate bond yields are generally less responsive to market developments. These ended the year lower than the short to medium-term bonds, possibly as a result of investor-specific preferences. The spread of two of the main banks against the benchmark widened to 50 basis points for six-year maturity and around 85 basis points for the eight-year maturity during 2010.

### 2.2 The banking sector

An improvement in the macroeconomic environment contributed to a faster rate of expansion in banks' balance sheet. Higher level of net interest income was meanwhile counterbalanced by a decline in net non-interest income, as markets remained volatile.

### 2.2.1 Balance sheet

The banks' balance sheet expanded by 5.6% during 2010, mainly attributable to higher interbank lending. The growth rate was broadly based though two banks reported a contraction in their balance sheet. Lending to the non-bank sector remained predominant, accounting for 56% of the balance sheet, while securities held in the banking book accounted for another quarter (see Chart 2.5). On the liabilities side, customer deposits financed almost 75% of the banks' aggregate balance sheet, with around two-thirds derived from households. Interbank liabilities dropped to 8.5% of the balance sheet both as a result of lower recourse to interbank borrowing and on account of repo transactions. Likewise, recourse to Eurosystem funding declined to 1% of the balance sheet, remaining a marginal source of financing.

#### The asset portfolio

Credit growth eased to 4.7% from 5.4%. This was attributable to subdued credit demand, mirroring lower private investment activity and, to some extent, tight lending standards. Box 2 gives more detail on banks' lending activity through the findings of the Bank Lending Survey (BLS). Nevertheless resident private sector

and public non-financial corporate indebtedness to GDP increased further to 126.9% in 2010. However, the credit gap narrowed in the second half of the year, reflecting the decelerating pace of credit risk accumulation (see Chart 2.6).10 As this mirrors the retrenchment in credit demand and tight credit conditions, the smaller gap may entail some reversal of the buildup in credit vulnerabilities within the banking sector, as credit growth readjusts to GDP growth. Indeed, as highlighted in Chapter 3, the new regulatory regime stipulates that counter-cyclical capital buffers may be required to moderate excessive credit growth when



<sup>&</sup>lt;sup>10</sup> The credit gap compares the real credit-to-GDP ratio with its trend. The business and credit cycles were smoothened using the Hodrick-Prescott filter and were based on the paper "Counter-cyclical capital buffers: exploring options", BIS *Working Paper 317*, July 2010.

economic and financial conditions are buoyant.

New loans granted by credit institutions during 2010 were virtually all channelled to resident borrowers. Lending to non-residents remained low and accounted for less than 10% of the loan portfolio. Mortgage lending constitutes nearly one-third of the banks' total loan portfolio. This remained buoyant during the year, rising by almost 9% on a year earlier. Indeed, a strong preference for home ownership, reflecting domestic, social and cultural characteristics supported the strong demand for mortgage loans.<sup>11</sup> On the other hand, corporate lending



decelerated to 2.2% from 3% in 2009. Lending for construction & real estate activities remained significant but its share to total loans declined by around 1.5 percentage points to 18.7%. This notwithstanding, the construction & real estate sector continued to exhibit weakness with the asset quality of related loans negatively impinging on the credit risk outlook. However, a reduction in the banks' extensive exposure to this sector underscores a determined effort on their part to lessen their concentration risks. This partly reflected the fact that some property developers sought external funding through the issue of bonds on the MSE. Meanwhile, the banks' relatively large exposures to the wholesale & retail trade sector, remained broadly stable during 2010 at 9.4% of total loans (see Chart 2.7).

With regard to other sectors, lending to public non-financial entities remained broadly stable, amounting to around 7% of total lending. Additional funds were channelled to the electricity and transport sectors, which in turn were supported by Government guarantees. As a result of the latter, the interconnectedness between the public and the banking sectors was broadened since banks also have large holdings of MGS. Large exposures to public entities amount to over 95% of the specific lending banks' total own funds, which drop to 23% after excluding loans covered

by Government guarantees.

Banks have only a small trading portfolio, equivalent to 0.1% of their total investment portfolio. Most of their banking book securities are retained as available for sale (45%) while 29% are designated at fair value through profit and loss. The remainder is held to maturity. The portfolio remained virtually balanced in orientation between domestic and foreign securities.

While the held-to-maturity portfolio is not subject to valuation changes, the effect on the designated at fair value through the profit and loss



<sup>11</sup> The latest Household Budgetary Survey (HBS 2008) indicated that around 78% of households were home owners.

## **BOX 2: BANK LENDING SURVEY RESULTS**

The BLS provides an insight into the underlying drivers of banks' balance sheet and profitability dynamics by focusing on their lending policy stance, both current and prospective. Four banks, which account for more than 95% of the credit provided to the resident non-financial sector, participate in this euro area quarterly survey.

Credit standards across the euro area remained tight throughout 2010 but appear to have levelled off. Banks in Malta largely followed a similar stance although the tightening process was less protracted and pronounced (see Chart 1). The impact of lower risk appetite, induced by an uncertain economic outlook,

particularly with regard to the construction sector, appears to have been dampened by higher competition between banks. Some banks widened their margins on riskier loans and increased non-interest charges, particularly for corporate and mortgage loans, better reflecting risk-sensitive pricing and, as a result, improving financial performance. Expectations for the first half of 2011 indicate stable credit standards.

Credit demand was rather subdued throughout the year, particularly by the corporate sector (see Chart 2). This contrasts somewhat with the pick-up in demand noted in the euro area from the second half of the year. The restraint in credit was largely demand-driven, instilled by generally lower investment activities, particularly as the construction sector continued to operate below potential against a background of oversupply in the real estate sector. Some downside impact could also reflect the intention of banks not to extend further credit to sectors where exposures are already high. Demand for consumer loans also remained subdued, probably reflecting pressures on households' disposable incomes. Respondent banks foresee stable demand from both households and corporate institutions for the first half of 2011.





portfolio depends on the extent and movement of counter-hedging strategies. The non-hedged or not fullyhedged portions of this portfolio are liable to valuation losses, similar to the trading portfolio.

As the impact of the international financial crisis continued to linger on, banks lowered their risk appetite and some flight to quality became evident. Thus, investment in foreign private securities dropped to 41% from 47% of the securities portfolio, with three-fourths of the total portfolio having an S&P rating of at least "A-".

The aggregate portfolio remained highly concentrated in domestic Government paper, including both MGS and Treasury bills, accounting for 44.5% of the securities portfolio from 41.3% a year earlier. Holdings of foreign government paper went up by 2.8 percentage points to 12.1% of the portfolio.

#### Sovereign risk

As noted in Chapter 1, concern about sovereign risk at international level remains elevated despite a number of EU comprehensive measures to contain volatility. The exposure of the banks to stressed countries (via holdings of securities and loans, including interbank loans) is equivalent to 24.3% of their Tier 1 capital.<sup>12</sup> The largest exposure relates to Portugal, one of the three euro area countries which sought an EU bailout and now faces mounting pressure (see Chart 2.8). This consists mainly of interbank exposures, which in total amount to around 16% of the banks' Tier 1 capital. On the other hand, the banks' exposure to Ireland and Greece (the previous beneficiaries of EU support) is more limited, equivalent to 2.7% and 4.8% of Tier 1 capital, respectively. In turn, exposures to Spain account for 8.3% of Tier 1 capital.

Exposure to countries under stress accounted for around 5% of total exposures to foreign countries, down from over 8% in 2009. This indicates cautiousness on the part of the banks, which considered the risk-reward ratio as insufficiently high despite the higher yields offered by these countries. Over two-fifths of these exposures consisted of securities issued by the private sector (including banks) with a similar proportion in loans extended to credit institutions in these countries, the latter including substantial interbank transactions with parent or sister companies. Direct exposures through holdings of government securities amounted to around 11% of total exposures to countries under stress.

The banks' claims on Libyan residents are limited to 0.5% of Tier 1 capital. However, risks could be more significant through the indirect credit exposures of the banks to domestic corporate customers who are involved in commercial activity with Libyan counterparties. According to official statistics exports to Libya amounted to some EUR85 million as at end-2010. It appears that amounts due are not substantial owing to the business practice that deliveries are generally made on receipt of payments.<sup>13</sup>

#### Asset quality

While credit risk normally builds up during periods of economic expansion, the risk becomes evident in



<sup>12</sup> In this context, the group of countries which are considered to be under stress are Portugal, Ireland, Greece and Spain. The latter was included in this group following persistent market pressure on Spanish securities as the country faced economic and financial difficulties in the second half of 2010.

<sup>13</sup> Source: DOI 15.04.2011

the downturn of the business cycle, with NPLs increasing as a result. Economic growth in Malta was driven largely by the financial and business services sector and the electronics industry, which do not generally resort to domestic bank credit. Indeed, as shown in Chart 2.7, the largest borrowers are the construction & real estate sector and the wholesale & retail trade sector. Several companies in these sectors faced some difficulties during the year - as explained in Section1.2. As a result, NPLs increased by over a third during 2010 to EUR643 million and are equivalent to 50% of the banks' total own funds (14 percentage points higher



than a year ago). Thus, the overall NPL ratio has risen for the second consecutive year to 7.3% in 2010 from 5.6% in 2009, being rather heterogeneous across banks (see Chart 2.9).

The prolonged downward trend in NPLs in recent years was reversed in 2009 and 2010 as some of the major sectors, particularly the construction and tourism sectors, faced a more uncertain economic environment. The deterioration in asset quality was largely reflected in the construction sector. However, banks did not experience a deterioration in their credit quality to the same extent since this depended largely on their exposure to the defaulting assets and on their credit risk management strategy.

NPLs relating to the resident corporate sector rose during 2010 by almost 40% to around EUR527 million while the NPL ratio increased to 11.2% from 8.4%. These developments were largely driven by the default on bank loans of a number of companies in the construction industry. Thus, the NPL ratio of the construction sector ended 2010 at 23.6% compared with 14.0% as at the end of the previous year. Other major economic sectors, particularly the accommodation & food service activities sector also registered an increase in their NPLs. Risks emanating from a deterioration in asset quality of loans provided to the property industry may be exacerbated by high levels of concentration in the overall loan portfolio. In this regard, it is relevant to point out that banks have tightened credit standards and are more cautious in extending their exposure in order to mitigate industry risks and specific company credit risks. This strategy should yield visible results in the longer term.

There was also a marked increase in rescheduled facilities, which rose by 14.5%. The largest segment of rescheduled facilities was in the construction sector which accounted for nearly half of the revised arrangements. This confirms the subdued state of the property market which has negative repercussions for the construction industry. Gross problematic assets thus increased to 9.3% as a percentage of total loans.

Meanwhile NPLs in respect of household loans increased by 15.5% pushing up the NPL ratio to 3.1% from 2.9% in 2009. This adverse development took place despite a reduction in the unemployment rate and the prevalent low interest rate environment. While defaults in both mortgage and consumer loans contributed to this increase, the latter grew by a faster rate. The increase in NPLs in the household sector is probably being driven by those segments of borrowers with a high debt burden and uncertain employment income.

Going forward, credit risk is expected to remain at elevated levels as the outlook for key borrowing sectors remains uncertain. Furthermore, the current benign interest rate environment is unlikely to persist much longer. As the vast majority of loans are contracted at variable rates of interest, higher interest rates could create repayment difficulties for some borrowers. Therefore it is likely that the NPL ratio will increase in the short term.

#### Loan loss provisioning

As already highlighted in previous issues of the *Report*, the upward trend in NPLs calls for higher provisioning. It is therefore of concern that, in spite of the observed heightened credit risk, loan loss provisioning (LLP) went up by only 19.7% (EUR20 million) during the year despite an increase of 35.9% in NPLs. As a result, collateral and specific provisions cover 86.2% of the NPLs, practically stable compared with 2009 (see Chart 2.10).<sup>14</sup>



Although some facilities are subject to significant collateral margins, with conservative haircuts, the estimated value of collateral for some of the larger facilities may be overstated, implying the possibility of an under-provisioning of such loans. Thus, excluding collateral, the level of total provisions to total NPLs (the coverage ratio) across banks decreased further to 19.2% (2009: 21.8%) with significant divergence across banks. In view of the prevailing uncertainty in credit markets, it thus appears paramount that banks need to implement a more conservative approach in their provisioning policies and increase their LLP accordingly.

#### Concentration risk

Concentration risk encompasses four main areas: credit, liquidity, market and operational risks. "Concentration risk has been traditionally analysed in relation to credit activities. However, concentration risk refers not only to risk related to credit granted to individual or interrelated borrowers but to any other significant interrelated asset or liability exposures, which, in cases of distress in some markets/sectors/countries or areas of activity, may threaten the soundness of an institution."<sup>15</sup>

Maltese banks have a high level of concentration on both the asset and liability sides of their balance sheet. In particular, credit concentration poses a significant risk from both a lending and collateral perspective. Collateral is predominantly composed of immovable property and accounts for around 84% of total extendable collateral provided to banks. Loans directed to property transactions accounted for around 52.5% of total resident loans as at end-2010 compared with 55% in 2009. Thus, the HHI of the lending portfolio remained high - both for the banking system as a whole and on an individual bank basis. The high level of concentration is also reflected in those loans classified as large exposures, with almost 40% of the largest ten facilities directed towards the property sector. Concentration risk may be augmented by interconnectedness and propagation of risk from, and across different, but related sectors/industries, in the local economy. Concentration risk is not fully captured under Pillar 1 of the Capital Requirements Directive (CRD). However, banks are required to allocate capital under Pillar 2 for all unmitigated components of concentration risk.

#### Funding and liquidity risk

Throughout 2010 banks maintained prudent funding strategies. Indeed, customer deposits continue to fund an increasing share of the banks' liquidity needs. Reliance on funding from the Eurosystem and through the issuance of debt securities remained limited. Interbank liabilities decreased. With customer deposits registering a higher growth than customer loans, 10.1% compared with 4.1% in 2009, the customer deposit-to-loan ratio reached 132.8%, seven percentage points higher than at end-2009 (see Chart 2.11).

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<sup>&</sup>lt;sup>14</sup> The collateral provided in respect of NPLs is based on average cover provided for all loans.

<sup>&</sup>lt;sup>15</sup> Source: CEBS Guidelines on aspects of the management of concentration risk under the supervisory review process, December 2009.

This pattern was generally evident across all banks.

The banks' reliance on short-term deposits increased further. These represented 77.6% of the banks' liabilities in 2010 compared with 72.7% in 2009. In the present low interest environment, short-term deposits provide a cheap source of funding compared with other sources. A significant proportion of these deposits is protected by a deposit guarantee which makes them less volatile.16 A total of 52.2% of deposits are either current or savings while another 40.6% have a remaining time to maturity of less than one year. Meanwhile, deposits with a remaining maturity longer



than one year contracted by 12.4%. Although current and savings deposits have to-date exhibited significant stability, it cannot be excluded that banks may face competition for such funds from other market operators possibly leading to sudden withdrawals from such accounts or higher interest costs. This, as a result may impose some funding risks for the banks.

The 12-month average maturity mismatch remained negative in 2010, although it narrowed slightly over the previous year, driven by a larger accumulation of assets maturing within one year over liabilities maturing within the same period (see Chart 2.12). As a result, the rollover risk that is the risk that banks may not meet their obligations in the short term, declined slightly.

The stock of unencumbered liquid assets (assets which are classified as available to banks to meet their

obligations in stressed situations) increased by 17.0% and account for 23.1% of total assets. The liquidity ratio is around 44%. The dispersion across banks narrowed as the bank at the bottom of the range raised its liquidity ratio to almost 40%. As indicated in Chapter 3, the liquidity regime will however be reviewed in line with the new CRD IV, which introduces a harmonised level and a standard of liquid assets.

#### Market and counterparty risk

The re-pricing gap widened to 0.4 years, up from 0.3 years a year earlier. This reflected a larger extension in the re-pricing period of assets when compared with



<sup>16</sup> Source: BIS International Framework for Liquidity Risk Measure Standards and Monitoring.

liabilities (see Chart 2.13).<sup>17</sup> The average re-pricing gap between loans and deposits is relatively narrow. Given the prevalent re-pricing structure, a rise in interest rates may, *ceteris paribus*, exert a negative impact on future net interest income while a parallel shift in the yield curve of 200 basis points is estimated to result in a change in economic value equivalent to 1.4% of Tier 1 capital.<sup>18</sup>

Market risks relating to foreign currency exposure remain low, equivalent to 0.4% of total own funds. The net open position in bank equity to total own funds increased by 3.0 percentage points to 42.3%. This



was due to favourable valuation changes rather than to higher equity holding by banks.

Interlinkages with both resident and non-resident financial institutions increased to 152.7% of Tier 1 capital at end-2010 from 117.8% in 2009. The degree of interbank exposure however varies across the banking sector, with some banks having significant intragroup exposures, amounting to around threequarters of the total interbank assets. Interbank exposure between systemically-important banks in Malta remains low.

#### 2.2.2 Profitability

The earnings of Maltese banks have declined by almost a third during 2010 to EUR205.5 million mainly due to a fall in revaluation gains and to higher provisioning charges. On the positive side, net interest income recovered substantially (see Chart 2.14). The ROE thus dipped by 7.4 percentage points to 12.8%, but is still higher than the average of the last five years, which stood at 11.7%. A weaker ROE was registered across the banking sector, reflected by the median ROE, which shifted to a lower level. A lower risk profile and a lower balance sheet leverage (measured as average assets



<sup>&</sup>lt;sup>17</sup> The average re-pricing period is estimated as follows: assets and liabilities are subdivided into four buckets according to their re-pricing period. The mid-point of each respective bucket is then multiplied by the share of each bucket in the total assets or liabilities. The result of each bucket is added to obtain the re-pricing period of assets and liabilities respectively. The re-pricing gap is calculated as the re-pricing period of assets less liabilities. A wider re-pricing gap indicates more sensitivity of interest income to unexpected changes in interest rates.
<sup>18</sup> The economic value of a bank is the bank's expected net cash flow (i.e. cash flow of assets less cash flow of liabilities) plus the expected cash flow of off-balance-sheet items. The economic value considers the potential impact of interest rate changes on the present value of all future cash flows. Source: Bank for International Settlements. July 2004.

to average shareholder funds) have contributed to this fall (see Chart 2.15). Operating efficiency and asset productivity also weakened, thus contributing to the decline in the ROE. Similarly, the ROA slipped by 0.7 percentage points to 1.4% at the end of 2010 but was still slightly higher than the average of 1.3% of the past 5 years.

# Net interest and non-interest income

Traditional financial intermediation contributed to almost 70% of gross income. Interest margins widened by 34 basis points returning to pre-crisis levels, as the average lending rates increased while deposit rates dipped slightly during the year (see Chart 2.16). Indeed, interest income from loans increased on account of a larger loan portfolio and of higher average lending rates (particularly for corporates). However, lower earnings on securities and interbank deposits contributed a negative 1.9% to overall interest income. Meanwhile, interest expenses dropped by a notable 21.9%, despite the expansion in the deposit base. The latter reflected a shift towards a greater proportion of short-term deposits which earn very low rates of interest. These developments were behind the recovery in net interest





income which increased by 14.4%, more than reversing the 8% decline recorded in 2009.

Largely due to the volatile valuation changes applied to mark-to-market securities and to lower receipt of dividend income and non-trading profits, non-interest income contracted in 2010. Thus, with non-interest expenses increasing by 5.9%, on account of higher operating expenses and staff costs, net non-interest income declined by 46.3%. Non-interest expense to gross income rose to 47.0% by end-2010 from 37.7% at end-2009, but remained below the average level for small banks within the euro area.<sup>19</sup>

#### Allocation of loan loss provisions and write-offs

The deterioration in credit conditions led to a rise in the amount allocated for provisioning purposes. This increased to EUR32.7million, compared with EUR18.3 million in 2009. Meanwhile, bad debts written off increased marginally to EUR6.4 million, while write-backs and recoveries declined by EUR1.2 million to EUR12.3 million.

Looking ahead, it is expected that banks' earnings may be negatively affected by higher loan losses and an increase in provisioning levels against a background of volatile international market conditions. On the

<sup>&</sup>lt;sup>19</sup> Source: *EU Banking Sector Stability Report* (September 2010).

Tabl	e 2.2
LOA	N LOSS PROVISION CHARGES TO PROFIT AND LOSS

EUR minions				
	2007	2008	2009	2010
Increase in allocation of specific provisions	32.67	25.49	14.96	24.05
Increase in allocation of collective provisions	2.14	3.91	3.36	8.69
Write Back of specific provisions	(55.51)	(30.66)	(9.28)	(9.06)
Write Back of Collective provisions	(1.19)	(0.99)	(2.42)	(1.64)
Bad debts written off	27.73	10.74	3.56	6.43
Bad debts recoveries	(2.96)	(2.68)	(1.77)	(1.57)
Loan loss provision charges	2.88	5.81	8.42	26.90

other hand, the broadening of the interest rate margin is likely to continue impacting profits positively. Furthermore, in view of the decelerating credit demand, banks may also boost their earnings through fees and commission income.

## 2.2.3 Capital adequacy

The international financial crisis over the last three years did not necessitate government intervention in the Maltese banking sector to strengthen its capital base. In aggregate, banks ended the year with an overall Tier 1 capital ratio of 12.3%, only 0.6 percentage points lower than in 2009 (see Chart 2.17). At this level, the ratio was comparable with that of small banks in the EU.<sup>20</sup> The slight decrease was attributable to the implementation of new prudential filters which required banks to make deductions for holdings in insurance companies. Meanwhile, the capital composition remained robust with Tier 1 capital almost entirely composed of equity capital and retained earnings.

The capital adequacy ratio is strongly dependent on the risk weights applied to assets held by banks. In this respect, the rise in risk-weighted assets was limited to only 0.5% (compared with a 5.6% rise in total assets). Banks exhibited a certain degree of risk aversion, channelling funds into assets carrying lower risk, particularly into household loans and domestic Government bonds. The banks' risk profile (risk-weighted

assets to total assets) which had been on an increasing trend up to, and including 2008, was thus partially reversed in the subsequent two years. This resulted from a shift to mortgage lending, which carries a lower risk weight as well as to government securities which carry a zero risk weight, the majority of which related to MGS. Exposure to government paper issued by countries under stress has decreased.

It should be stressed that although current supervisory rules subject government securities to a 0% risk weight, such paper may not necessarily be risk free. As highlighted by the Financial Stability Board, banks should independently assess



<sup>20</sup> Source: *EU Banking Sector Stability* (September 2010).

whether the rating assigned by rating agencies appropriately reflects the underlying risks and should thus be more conservative, when assessing their capital adequacy ratios if necessary.<sup>21</sup>

The CAR was also generally stable, dropping by only 0.5 percentage points to 15.4% in 2010. Banks have adequate capital to cover all Pillar 1 risks: credit, market and operational risk. Stronger solvency ratios are however warranted since Pillar 2 risks, particularly concentration and interest rate risk in the banking book, may, to some extent, require a higher capital buffer.



As discussed in more detail in Chapter 3, a leverage ratio will be introduced under the new Basel III framework to place a limit on the extent of banks' on and off-balance-sheet debt. In this respect, the revised Tier 1 capital must be in excess of 3% of banks' total assets and off-balance-sheet commitments. Currently, the full data to calculate this ratio in line with the Basel III definition are not available – but banks need to ensure that they meet the minimum leverage ratio taking into account off-balance-sheet positions.

In 2010 the leverage ratio (measured as capital and reserves to balance sheet assets) of Maltese banks remained stable at 10.8%. Indeed, the leverage ratio and the risk profile (risk-weighted assets to total assets) exhibited a strong inverse relationship during the past years suggesting that most banks appear to build their portfolio of risk-adjusted assets on the basis of their capital and reserves, in order to stabilise solvency ratios (see Chart 2.18).

However, while banks generally increased their risk profile up to 2008 and augmented their leverage (i.e. lower capital covering total assets), in the aftermath of the international financial turmoil, they tended to reverse their risk profile in subsequent years.

During the past decade, banks have increased their capital bases through both the issuance of equity as well as through profit retention. In future, significant additions to capital may become necessary in view of more stringent capital rules in terms of loss absorbency requirements.<sup>22</sup>

In this respect, therefore, the banks' dividend policy needs to be more responsive to the new regulatory regime, which calls for higher levels and quality of capital. Although under normal circumstances current dividend policies may be regarded as prudent, the new financial scenario may require a more conservative approach to dividend payouts particularly by those banks with lower capital ratios. This is probably the most feasible direct form of strengthening capital resources.

## The resilience of the banking sector

Stress tests complement the assessment of risks as they provide an indication of how banks' balance sheets could be affected by the materialization of plausible yet extreme shocks. The tests relate to: asset quality deterioration; an economic downturn; correction in house prices; and a scenario characterised by persistent deposit withdrawals. The same magnitude of shocks, as in previous *Reports*, was applied in the latest tests. In this regard, the results of the univariate tests (which do not cater for potential feedback

<sup>&</sup>lt;sup>21</sup> Financial Stability Board: *Principles for Reducing Reliance on CRA Ratings*, 2010.

<sup>&</sup>lt;sup>22</sup> Refer also to Chapter 3.

effects) show that the ability of banks to withstand the applied shocks has not materially changed from the previous assessment, with the banking system in Malta remaining resilient to the tested shocks.23 The probability that the aforementioned scenarios materialise in the near term is generally judged to be low particularly in the case of a liquidity crisis on account of a bank run, the probability of which is deemed to be remote. A house price correction is perceived to have potentially the highest impact while credit quality deterioration and an economic recession are judged to exert a significant and a low impact, respectively.

In the case of an asset quality deterioration stress test, probability of default (PD), is assigned to various components within the securities and loans portfolio. As a result, the system-wide Tier 1 ratio is estimated to fall to 8.0% from 12.3%, with a worst case scenario of 7.1% when applying a deterioration of up to 20% in the PDs (see Chart 2.19). Results are however negatively skewed with the median bank's Tier 1 ratio falling to 6.4%. The economic downturn stress test, which assumes a sector-specific surge in NPLs of between 5% and 15% and the consequent need for higher provisions, indicates that, after considering the available collateral, Tier 1 would, at most, drop by 2.5 percentage points to 9.8% (see Chart 2.20). The stress test related to the correction in house prices, with haircuts on collateral values, ranging from 20% in the baseline scenario to a more adverse 30%, and the requirement for higher provisioning as a result of higher defaults, shows that the Tier 1 ratio will fall under the most extreme scenario to 4.7% (see Chart 2.21). Finally, the deposit run simulation (based on daily deposit withdrawals



#### Chart 2.20 ECONOMIC DOWNTURN

(percentage points)





<sup>23</sup> Refer to *Financial Stability Report 2009* for additional technical details.

Financial Stability Report 2010

of 10%, 15% and 20% for five consecutive days), shows that only in the most extreme case (withdrawal of 20%) will available liquid assets prove insufficient on day five (see Chart 2.22).

Box 3 supplements these top-down stress tests with results derived from the extension of the 2010 EU-wide stress test performed on all the actively operating banks in Malta, using the methodologies and scenarios prescribed by the ECB and CEBS, the predecessor of EBA.

# 2.3 The non-bank financial sector

## 2.3.1 The insurance sector

The insurance industry in Malta, similar to that abroad, is largely funded by upfront premia with little recourse to wholesale funding. At the same time, owing to the longer-term nature of the business, the sector tends to be shielded from excessive short-term adverse conditions.

At around 8% of total assets of the financial sector in Malta, the size of the domestic insurance market is lower than the comparable average size of the insurance sector in the euro area (12.7%). However, when taking into account only systemically-relevant institutions, similar to





the situation in the banking sector in Malta, it is extremely concentrated, both in terms of assets (HHI: 3892) and premia (HHI: 3121) with one company accounting for over half of the total written net premia.<sup>24</sup> The insurance sector also has a significant exposure to local government securities.

#### Financial conditions

The profitability of the insurance sector improved in 2010, underpinned by higher investment income and net premia (see Chart 2.23). Nevertheless net claims for insurance cover increased substantially over the year, by 24.7%, mainly due to a significant number of maturities and the surrender of life policies. Net premia rose by close to 11% compared with 8.2% in the previous year. The life segment remained the main business driver, accounting for a rising share: 74.2% of the total business in terms of net premia. Indeed, whereas life premia rose by almost 14%, non-life premia expanded by around 3%.

<sup>&</sup>lt;sup>24</sup> Net premia are defined as gross premia less reinsurance ceded.

# BOX 3: 2010 EU-WIDE STRESS TEST APPLIED TO THE REST OF THE BANKING SYSTEM

#### The application of the EU-wide stress test to the banking sector in Malta

In 2010 CEBS coordinated an EU-wide stress test exercise across a number of banks.<sup>1</sup> The Central Bank of Malta and the Malta Financial Services Authority were jointly involved in the test applied to Bank of Valletta plc (BOV), the only bank in Malta directly included in the sample. Erste Bank (Malta) Ltd, HSBC Bank Malta plc, NBG Bank (Malta) Ltd, Fortis Bank (Malta) Ltd and Raiffeisen Malta Bank plc were indirectly included as they were tested by their respective parent's regulator as part of the consolidated group. These five banks together accounted for under 50% of the Maltese banking system in terms of total assets on a consolidated basis. When BOV was added to these banks the percentage increased to just over 72%. As already made public by CEBS in July 2010, all these participating banks passed the 2010 EU-wide stress test.

The Bank considers stress testing as an important macro-prudential tool in assessing financial stability. Stress testing is used to assess the resilience of an institution to extreme yet plausible shocks to the macro economy and to financial markets. Stress tests are also part of the financial stability and risk management toolkit used for detecting vulnerabilities. Thus the Bank decided to extend the 2010 EU-wide stress test to those banks operating in Malta but which were not directly included in the EU-wide tests. This Box reports the results and horizontal assessment of the stress tests performed on the 16 banks, in addition to Bank of Valletta.<sup>2</sup> The stress tests were largely implemented through a top-down approach, in order to ensure conservative estimates and comparability of results across banks. Banks were deemed to pass the stress test if their Tier 1 ratio did not fall below a 6% threshold after the shocks were applied.<sup>3</sup>

#### The scenarios and assumptions applied

The exercise was conducted using the scenarios, methodology and key assumptions provided by CEBS (see the aggregate report published on the CEBS website). The test assessed two main sources of risk faced by credit institutions, namely market and credit risk. Three different scenarios were investigated: benchmark, adverse and more adverse. The latter included a sovereign shock (similar to the one experienced by Greece in 2010) to the adverse shock, and is henceforth referred to as "sovereign shock add-on".

In the case of Malta, PDs for the benchmark scenario provided by the ECB, which were used as input in the calculation of credit risk, were marginally lower when compared with 2009, both for 2010 and 2011, implying attenuating risk over time.<sup>4</sup> This scenario was in line with the positive outlook projected at the time of the exercise (refer to Tables 1 and 2). Under the adverse scenario, the Maltese economy was assumed to slow down for eight consecutive quarters. As a result, the PDs for this scenario increased both during 2010 and 2011. To reflect market risk, the yields on the three-month Treasury bills and on the ten-year bonds were assumed to shift upwards by 200 and 50 basis points, respectively. In turn, the sovereign shock add-on was designed on the basis of significant upward shifts in sovereign yield curves with concurrent upside impact on PDs. The haircut on the market value of Maltese sovereign securities was set at 6.4%, the ninth lowest among EU Member States. Sovereign exposures held to maturity (HTM) were not shocked. A constant balance sheet was assumed under all scenarios.

<sup>&</sup>lt;sup>1</sup> All relevant documentation on the 2010 EU-wide stress test is available on the EBA webpage (the successor of CEBS) on <u>http://www.eba.europa.eu/EuWideStressTesting.aspx</u>

<sup>&</sup>lt;sup>2</sup> Besides Bank of Valletta plc the list of banks consists of: APS Bank Ltd, BANIF Bank Malta plc, BAWAG Malta Bank Ltd, CommBank Europe Ltd, Erste Bank (Malta) Ltd, FIMBankplc, Fortis Bank Malta Ltd, HSBC Bank Malta plc, Investkredit International Bank plc, Izola Bank Ltd, Lombard Bank Malta plc, Mediterranean Bank plc, NBG Bank (Malta) Ltd, Raiffeisen Malta Bank plc, Sparkasse Bank Malta plc and Volksbank Malta Ltd. Other banks were not included in the sample as they were not yet fully operational.

<sup>&</sup>lt;sup>3</sup> This floor is higher than the 4% requirement under current regulations.

<sup>&</sup>lt;sup>4</sup> The PDs varied across countries.

Table 1 MACROECONOMIC SCENARIOS												
GDP at Unemployment Short constant prices interes						-term st rates	Long interes	-term st rates	Nomina exchan	al USD ge rate	C	PI
	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011	2010	2011
Benchmark Benchmark Brite Bence anna	0.7	1.6	7.4	7.3	1.2	2.1	4.5	4.9	0.7	0.7	2	2.2
	0.7	1.5	10.7	10.9	1.2	Z. I	5.5	5.0	0.7	0.7	1.1	1.5
erse Malta	-0.8	-1.2	7.6	8.2	2.1	3.3	5.1	6	0.7	0.7	1.8	1.6
ອີວັ ອິດິ Euro area	-0.2	-0.6	10.8	11.5	2.1	3.3	4.4	5.3	0.7	0.7	1.1	1.1

#### Table 2

# CHANGES IN PDS IN 2011 ACROSS SECTORS UNDER THE ADVERSE SCENARIO, COMPARED WITH 2009 (%)

	Institutions	Corporate	Retail real estate	Consumer credit
Malta	11.9	54.9	18.5	36.0
Euro area	8.5	61.3	20.8	25.8

#### **Results and interpretation**

The credit losses of the scenarios considered were rather muted due to the low PDs associated with the lending portfolio and the quality of the majority of the securities portfolios held by banks. The effect of the shock on securitisation exposures was contained since only two banks held a significant portfolio of asset backed securities and the vast majority of these had strong credit ratings. Furthermore, holdings of non-HTM securities were not very significant. Nevertheless, the largest impact was driven by the sovereign add-on shock, largely reflecting the holding of securities issued by sovereigns in Portugal, Ireland, Italy, Greece and Spain within the non-HTM portfolio. These securities carried larger deviations both in the PDs and in the yield curve.

The aggregate starting Tier 1 ratio for the 17 banks under examination was almost 22% in 2009 (6.6 percentage points higher than in 2008).5 In view of the particular assumptions factored into the stress test and in the retention of earnings, the post-shock Tier 1 capital increased to 23% in 2011, even under the worst scenario (see Chart 1). Indeed, 10 of the 17 banks registered an increase in their adequacy ratios as the effect of the sovereign add-on shock did not offset their profits. The distribution of results compared favourably with those of other EU banks. Chart 2 depicts the second



<sup>&</sup>lt;sup>5</sup> BOV is included.

and third quartile results for the 17 banks in Malta and for other banks participating in the EU-wide stress tests. The Tier 1 ratios of EU banks abroad were less sparse and much more concentrated around lower median values when compared with those of the banks operating in Malta. Still, the average pre and post-shock Tier 1 ratio of the Maltese banks under the different scenarios was skewed, with a small number of banks holding a high Tier 1 capital ratio, at times even approaching 100%.6 Due to specific circumstances, one of the smaller banks' Tier 1 capital ratio was below the threshold. This bank has since embarked on a



capital strengthening programme. Overall, these results thus further confirmed the resilience of the local banking system to particular stress scenarios.

<sup>6</sup> Indeed the median values are lower than the average, showing a positive skewness in the distribution.

The sector's profit was boosted by higher investment income, which almost tripled. Recovery in profitability was further underpinned by the non-occurrence of exceptional costs in the previous year associated with the winding down of a foreign non-life subsidiary of an insurance company.

The flight to quality evident throughout 2009 was not reversed in 2010, with shifts away from equity towards high-rated bonds. The composition of the sector's holdings of investments thus remained broadly stable with almost three-fifths consisting of fixed income securities, close to 60% of which were invested in MGS. Through this significant holding of assets, the insurance companies are major players in the secondary market for MGS with implications for price movements in this market. The insurance companies are also large holders of shares and equity, around one-fourth of which is issued by banks, and this has the potential to become a source of contagion across the financial sector.

Technical reserves increased by almost 14%, corresponding to the increase in net premia. These reserves accounted for 80% of the sector's total balance sheet. The capital base of the insurance sector improved by 8.5%, driven predominantly by the non-life sector. As a result, the solvency ratio (capital to total assets) of the non-life sector improved to 37.8% in 2010 from 33.3% in 2009, while that of the life insurance sector remained stable at around 12%.

#### Risks in the insurance industry

The sector's conservative investment strategy enabled a sustained flow of income, even during periods of intensified global financial distress. However, the extended low interest rate environment heightens the sector's inherent interest rate risk, since in a low interest rate environment the value of insurers' obligations rises, while investment income remains subdued. However, in the case of Malta, this vulnerability is not as pronounced given that life insurance policies guaranteeing fixed rates of return to policyholders are limited. The recent upturn in the interest rate cycle suggests that this risk may subside further, although this positive outcome could be offset by the negative impact on the value of MGS, leading to some valuation losses for insurers.

The relative absence of reinsurance of risks, particularly in the case of life insurers, can be of concern in case of a catastrophic event. It is estimated that this segment maintains a 97% Risk Return Ratio (RRR) while the non-life segment reports a 69% RRR. On one hand, the absence of reinsurance of risks sustains the sector's profitability but, on the other hand, this is done at the potential risk that a materialisation of a remote but large shock could prove very problematic, both on the institutions' solvency and on the beneficia-ries' wealth. Further concerns relate to the high interconnectedness with the banking system since the three largest insurance companies have ownership links with the banks. Other structural risks specifically facing the life insurance sector relate to longevity in the light of a rise in life expectancy, which could raise future obligations, thus undermining the sector's profitability.

#### 2.3.2 The investment funds sector

The size of the investment funds sector whose majority of shareholder units are owned by residents (domestic investment funds sector), consisting of Collective Investment Schemes (CIS) (11 schemes) and hedge funds (nine funds), remained very small, respectively accounting for only 5% and 1% of the financial sector's assets.<sup>25</sup> Although one institution terminated operations, assets under management by CIS still expanded by 6.5%. This was largely driven by price changes but additional investments were also reported (growth

<sup>&</sup>lt;sup>25</sup> The Investment Services Act (1994) specifies that CIS are organisations with the aim of collectively investing "capital acquired by means of an offer of units for subscription, sale or exchange". Hedge funds are a special class of CIS, attracting persons or companies with a relatively higher initial level of capital. As their nature is non-retail, they are subject to limited regulation and oversight. There are three types of hedge funds, namely, Experienced Investor Funds, Qualifying Investor Funds and Extraordinary Investor Funds. These differ on the basis of the minimum entry capital levels that investors are expected to invest. Investors are expected to have the experise, experience and knowledge to be in a position to make their own investment decisions and understand the risks involved. Moreover, special licence conditions may apply to specialist schemes, such as venture capital or development funds, money market funds, property funds are slowly gaining more importance, these specialist schemes are not yet very common in Malta.

in equity: 10.6%; growth in securities: 2.5%). Two new hedge funds were licensed but had not yet started operations as at the end of the year. Total assets under management grew by 11.4%, with higher investments more than offsetting valuation losses. In general the risk profile of CIS remained conservative, albeit highly concentrated. Indeed, almost half of the funds pertaining to the CIS were channelled into MGS. The level of exposure that CIS and hedge funds had to domesticquoted securities and shares stood, respectively, at 63.3% and 46% of their total investment portfolio. This highlights further inter-



linkages between these institutions and the domestic economy. Foreign exposures of CIS and hedge funds stood at 36.7% and 54.1%, respectively, of investment assets, of which exposures to stressed countries represented around 9%.<sup>26</sup>

Households remained the major contributors to CIS, accounting for almost 88% of total domestic investment fund units. On the other hand, non-financial corporations own the largest share (40.2%) of hedge funds in line with the higher entry requirements. The small size of the investment funds sector, and the relatively low exposure of households to this sector, which is equivalent to 6.5% of household financial wealth, limits the potential threat to the soundness of the financial system. Moreover, the business model adopted by most investment funds is generally conservative, where exposures to structured products remain negligible amidst strong focus on MGS holdings (see Chart 2.24). A possible concern is the contagion risk between the investment fund sector and the banking sector in view of the fact that two major banks manage six CIS through fund managers.

## 2.4 Conclusion

The financial system in Malta remains robust. The profitability of the banking sector has continued to increase, though at a slower pace than in the previous year. The increase was primarily the result of sustained interest income. Its capital remained high, but below levels established in 2009 due to the introduction of prudential filters. Liquidity continues to be underpinned by persistent strong inflows of retail deposits. Similarly, the non-bank financial sector remained profitable with robust solvency ratios.

The risks to the domestic banking system may stem from continuing uncertainty in the international economic and financial system, which may negatively impact on external demand and thus on the credit worthiness of the banks' customers. Indeed, banks have already experienced some deterioration in the quality of their asset book in respect of facilities extended to the construction sector. This is compounded by high concentration risk as a result of their direct exposure to, and collateral held, in property-related assets. To some extent as well, banks have high concentration in respect of their short-term funding which is not matched by short-term assets. These risks and vulnerabilities were assessed through a number of univariate stress tests and the results obtained indicate that, on average, banks are resilient to such tail events.

<sup>&</sup>lt;sup>26</sup> Refer to footnote 12.

The most significant risks within the financial system include:

>	Concentration in the banks' loan portfolio and collateral towards property-related sectors and assets
•	Deterioration in asset quality not matched by adequate provisioning
	Risk to profitability arising from significant declines in property prices
-	Valuation losses and lower trading profits
	A high level of short term deposits contributing to a maturity mismatch
-	Lack of depth and limited liquidity in the domestic capital market
	Contagion risk between bank and non-bank financial institutions
>	Higher interest rates may lead to valuation losses for the insurance sector
-	High risk retention ratio leading to possible severe losses in case of catastrophic events

Legend



Increased somewhat since the December 2009 FSR

Unchanged since the December 2009 FSR

# 3. POLICY RESPONSES AND IMPLICATIONS

The policy initiatives that started as the financial crisis was unfolding became more concrete when agreement was reached on a number of regulatory proposals, together with their respective calibration and phasing-in.<sup>1</sup> The European Commission is currently reviewing the transposition of these guidelines into EU law through the CRD IV.<sup>2</sup> Meanwhile, as was initially recommended by the *de Larosière Report*, and subsequently agreed within the EU, the regulatory architecture has been revised through the establishment of the European Systemic Risk Board and the European Supervisory Authorities.<sup>3</sup>

### 3.1 Institutional developments

The ESRB held its first official meeting in January 2011 (refer to Box 4 for an overview of the new supervisory structure in the EU). This body is responsible for the macro-prudential oversight of the EU financial system with the main focus being the prevention and mitigation of systemic risk through the appropriate macro-prudential tools and policies. These could include, *inter alia*, recommendations for capital and liquidity surcharges for systemically important banks, counter-cyclical capital buffers and loan-to-value limits. In this respect, national authorities need to have the necessary legislative underpinning in order to implement such recommendations. In the case of Malta, current legislation assigns to the Central Bank of Malta the responsibility for ensuring financial stability.<sup>4</sup> In this role the Bank continues to stress the need to implement macro-prudential policies. Such policies could in principle be implemented through the micro-prudential regime, facilitated through the long-standing cooperation between the Bank and the MFSA. Meanwhile, the Bank has a sole oversight responsibility for payment systems in Malta (see Box 5).

### 3.2 More resilient banks and stronger liquidity requirements

Under Basel III, banks will be required to hold higher and better quality capital, with core Tier 1 being the predominant component of capital with loss absorbing qualities. Furthermore, to be considered as additional Tier 1 and Tier 2 capital, instruments issued on, or after, 1 January 2013 must have a provision that requires such instruments, at the discretion of the relevant authority, to be either written off or be converted into common equity on the occurrence of a specified trigger event. Instruments without such a provision will be

phased out from being considered as part of own funds as from 2013. This would ensure increased robustness of capital and ascertain that public funds are only utilised as a last resort, thereby containing moral hazard by promoting the appropriate surveillance of banks by the holders of such instruments.

A "conservation buffer" of 2.5% will also be introduced to ensure that banks build up capital buffers outside periods of stress (see Chart 3.1). These buffers can subsequently be drawn down when losses are incurred to avoid a situation where, in the face of weakening solvency, banks still maintain unsustainable dividend policies.



<sup>&</sup>lt;sup>1</sup> Refer to the Bank's *Quarterly Review 2010:3* for further details on the Basel III regulatory reform.

<sup>&</sup>lt;sup>2</sup> Refer to http://ec.europa.eu/internal\_market/consultations/2010/crd4%5Fen.htm

 <sup>&</sup>lt;sup>3</sup> OJ L 331, 15 December 2010, EU Regulations No. 1092/2010 and No. 1096/2010 established and provided for the functioning of the ESRB.
 <sup>4</sup> Central Bank of Malta Act Cap 204, Article 5(1).

# BOX 4: THE NEW SUPERVISORY ARCHITECTURE IN THE EU

The European Systemic Risk Board (ESRB) forms part of the European System of Financial Supervision (ESFS) (see Table 1). Besides the ESRB, the ESFS includes the European Supervisory Authorities (ESAs) - composed of the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA) and the European Securities and Markets Authority (ESMA) - the Joint Committee of the European Supervisory Authorities, and the competent or supervisory authorities in the Member States. EBA, ESMA and EIOPA replace the Committee of European Banking Supervisors (CEBS), the Committee of European Securities Regulators (CESR) and the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS) respectively, but with extended responsibilities.

The mandate of the ESAs is broader than that of the previous committees and consequently the ESAs will have additional powers, which include the drafting of proposals related to technical standards in their respective areas of competency. They are also tasked with improving information exchange between national supervisors, ensuring uniform application of European Community laws and with exercising supervisory powers for rating agencies.<sup>1</sup> They will also settle any disagreements between supervisory authorities and between supervisory colleges. Together with national supervisors and with the Joint Committee, which caters for cross-sectoral issues, this framework will be responsible for micro-prudential oversight.

While the new architecture requires the ESAs and the ESRB to cooperate extensively in the identification and analysis of systemic risks (for example by developing a common set of quantitative and qualitative indicators or a risk dashboard), the ESRB will be responsible for the macro-prudential aspect of supervision within the Union. The ESRB is based in Frankfurt while the secretariat is provided by the ECB. The inaugural meeting was held in January 2011, with the first formal meeting taking place in March. The decision-making body of the ESRB is the General Board. The voting members are the President and the Vice-President of the ECB, the Governors of the national central banks, one member of the European Commission, the Chairs of the three ESAs, the Chair and the two Vice-Chairs of the Advisory Scientific Committee, and the Chair of the Advisory Technical Committee. In order to ascertain coordination between macro-prudential and micro-prudential responsibilities, national supervisory authorities also form part of the Board but have no voting rights. The President of the Economic and Finance Committee will also form part of the General Board and,



similar to the national supervisory authorities, will not have the right to vote. The Board is normally expected to convene four times a year although extraordinary meetings may also be set. ESRB members are expected to act impartially and only in the interest of the European Union as a whole.

The ESRB is supported by the Advisory Technical Committee (ATC). It is composed of senior central bank officials and regulators. An Advisory Scientific Committee (ASC), composed of 15 experts including academics, has been established to provide further input into the ESRB process. Also, a Steering Committee will give assistance to the ESRB by preparing meetings of the General Board, reviewing the documents to be discussed and monitoring the progress of ongoing work.

The objective of the ESRB is to address one of the most important weaknesses identified during the financial crisis, as highlighted by the *de Larosière Report* – the lack of an adequate pan-European monitoring, assessment and mitigation of systemic risk. Thus, it is required to contribute to the prevention or mitigation of systemic risks in the EU, taking into account macroeconomic developments. It will therefore analyse relevant information to identify systemic risks. To this effect, the ESRB may issue general or specific risk warnings and recommendations to all, or to some or to individual EU Member States, to one or more of the three European supervisory bodies, to one or more of the national supervisors, and also to the European Commission concerning specific EU legislation. Warnings will be issued where systemic risks are deemed to be significant. Recommendations will be put forward for remedial action in response to identified risks. Confidential warnings could also be addressed to the Council in order to enable it to adopt a decision addressed to the ESAs. Recommendations issued envisage a specified timeline for a policy response and though these recommendations are not legally binding, they are issued on a "comply or explain" basis. The ESRB will monitor and follow up any warnings and recommendations made. The ESRB can go further and decide, on an individual basis, whether or not to publish such warnings and recommendations.

To promote accountability, the ESRB Chair will, at least on an annual basis or more frequently in the case of a financial crisis, report to the European Parliament and to the Council. The Regulation also envisages that the European Parliament and the Council should be able to ask the ESRB to examine specific issues related to financial stability. It is foreseen that the ESRB will recommend an array of macro-prudential tools, which can be applied at both European and domestic levels through national authorities.

The ESRB will also coordinate its actions with those of international organisations, particularly the International Monetary Fund (IMF) and the Financial Stability Board (FSB), as well as with the relevant bodies in third countries on matters related to macro-prudential oversight.

Nonetheless, this framework presents some challenges. The ESRB's job to properly identify risks and to set an effective corrective policy response is not a straightforward task as the interaction of different responses and outcomes within the financial system or the economy cannot be estimated with accuracy. Furthermore, a "counter-cyclical buffer" of up to 2.5% is foreseen, with the objective of building up capital in periods of economic growth but which can then be released during "bad times". Indeed, one of the transmission channels that exist between the financial and real sectors of the economy operates through banks' balance sheets. Adverse shocks can result in a sharp contraction in credit availability and thus amplify further shocks. This happens when banks are unable to fully insulate their supply of lending in response to such shocks while borrowers are highly dependent on bank credit.<sup>5</sup> Indeed, worsening economic conditions can have a negative impact on solvency ratios as a result of higher risk-weighted assets while profits are depressed due to larger defaults and provisioning. The counter-cyclical buffer precisely aims to mitigate some of these negative effects. Operationally, the build up will likely be driven, though not mechanically, by a situation of excessive credit growth when compared with GDP growth, and run down under the opposite scenario.<sup>6</sup>

The envisaged higher capital requirements should ensure that banks are in a better position to absorb shocks. Studies on the estimated impact from the revision of the capital framework suggest that the overall effect should be contained, subject to a number of caveats, to 0.09% loss in the level of steady state output relative to the baseline for every percentage point increase in the capital ratio.<sup>7</sup> In view of the substantial changes involved, and to avoid undue shocks during the implementation of these changes, there is a transitional period up to 2019, with scaled deductions of eligible capital instruments for a further four years. There remains the possibility, however, that the above changes are frontloaded to signal institution robustness or if financial market conditions so dictate. In this eventuality the overall downside impact on economic growth could prove larger than currently being estimated.

Excessive leveraging by a number of institutions, in certain cases short-circuiting the safety of capital ratios, was one of the prime catalysts of the financial crisis. This caused uncertainty, higher requests for collateral, losses, and bankruptcies among the leveraged institutions, which thus amplified the initial adverse shock. The proposed non-risk-weighted based leverage ratio, defined as capital to total exposures, will supplement the risk-based capital requirements and include off-balance-sheet items such as derivatives, commitments, standby letters of credit, trade letters of credit, failed transactions and unsettled securities on a gross basis. The floor is initially being calibrated at 3%, with monitoring starting in 2011 and disclosure as from 2015 (see Chart 3.1). Some banks will therefore be constrained to shrink their balance sheet or increase their capital size. It is possible that this ratio will have a significant impact on the quantity of capital that needs to be held.

In addition, to correct the pronounced vulnerability to liquidity shocks and alleviate the absence of a global liquidity framework, two new standards, the Liquidity Coverage Ratio and the Net Stable Funding Ratio, have been designed by the Basel Committee on Banking Supervision. These, together with a host of other monitoring tools, aim to ensure that banks are able to withstand short-term severe liquidity shocks while favouring stable sources of funding. An important novelty in this framework is the definition of what constitutes liquid assets. The latter have been defined as cash and very high quality marketable securities (which must have certain fundamental and market-related characteristics) but will also include, to a certain extent, corporate and covered bonds with a credit rating of at least "AA-". Given that such a liquidity regime on a global scale is both novel and challenging, it will be introduced gradually, with a review following the monitoring phase to address any unintended consequences (see Chart 3.2).

The new regime will have a significant impact on credit institutions, which should as a result have larger, and better quality capital and liquidity buffers. The impact on costs is not necessarily high since stronger institutions could also benefit from lower funding costs as credit risk would be expected to be commensurately lower. On the other hand, banks must endeavour to understand the implications of the new regime and take appropriate steps at an early stage in order to restructure their business model and/or their balance sheet structure as necessary.

<sup>&</sup>lt;sup>5</sup> Refer to BCBS *Working Paper 18* (2011): "The transmission channels between the financial and real sectors: a critical survey of the literature".
<sup>6</sup> The BIS has published guidelines on the implementation of such counter-cyclical buffers, spelling out what is required by authorities and the principles to be followed when banks make their capital buffer decisions. Refer to BIS "Guidance for national authorities operating the counter-cyclical capital buffer" available on http://www.bis.org/publ/bcbs187.pdf

<sup>7</sup> Refer to final report by the Macroeconomic Assessment Group (December 2010) available on http://www.bis.org/bcbs/fincriscomp.htm



Banks in Malta have generally held high quality loss-absorbing capital. Their current Tier 1 capital components closely approximate the core Tier 1 Basel III definitions, but it is noted that Basel III features additional deductions, which potentially can result in the core Tier 1 ratio coming close to the minimum requirement.<sup>8</sup> Although reliance on Tier 2 capital by banks in Malta is not excessive, the current definition does not include a provision relating to conversion into equity under specified trigger conditions and will therefore be run down in line with the agreed time phase. Nevertheless, on aggregate, the current available capital appears sufficient to satisfy the new definition of capital, as well as to meet the new conservation and possibly even the counter-cyclical requirements. Without taking into consideration the effect of the leverage ratio, in general future capital requirements are not likely to be excessively onerous for banks in Malta. At the current juncture, it is not possible to evaluate the potential capital requirement impact of the introduction of the leverage ratio since detailed information on off-balance-sheet activities is not available. In terms of liquidity, domestic banks have traditionally held high liquidity ratios. The new liquidity requirements are however expected to rebalance demand in favour of more liquid instruments, as well as to introduce other liquidity monitoring tools. This implies that banks in Malta need to review the new liquidity requirements and the implications on their liquidity strategy.

## 3.3 Other developments to enhance financial stability

As described in the 2009 *FSR*, the IASB is reviewing the accounting treatment of impaired financial assets that will allow a more forward-looking approach on how credit losses are accounted.<sup>9</sup> The Bank, together with the MFSA, is closely following these developments, particularly in view of long-dated concerns that provisioning practices in Malta need to be reviewed.<sup>10</sup>

To enhance consumer confidence during a financial crisis, it is essential for deposit guarantee schemes to be sufficiently robust to be able to meet potential claims in an efficient and rapid manner. To meet these objectives, the EU Commission is currently proposing an EU Recast Directive on Deposit Guarantee Schemes to harmonise and simplify the coverage and payout arrangements across Member States. Amongst the novelties in the proposal is the inclusion of coverage of all non-financial companies' deposits and also deposits in non-EU currencies. This will entail higher contributions by banks to the scheme, which however may vary from institution to institution since, under the proposal, payments to the Scheme will depend on the degree of risk associated with each individual institution, calculated on the basis of a set of prescribed indicators.

<sup>&</sup>lt;sup>8</sup> None of the banks in Malta was among the participants in the Quantitative Impact Studies (QIS) which have been performed to date. Moreover, significant technical issues, such as the exact status of domestic Government bonds in the case of liquidity requirements, still need to be clarified.

<sup>&</sup>lt;sup>9</sup> See http://www.ifrs.org/News/Press+Releases/Impairment+supplementary+document.htm

<sup>&</sup>lt;sup>10</sup> See http://www.imf.org/external/country/mlt/index.htm

# **BOX 5: PAYMENT SYSTEMS**

Payment systems allow financial obligations to be settled securely and efficiently between debtors and creditors by transferring funds to different institutions which then discharge payment obligations across the economy. This makes payment systems critical to the effective functioning of economies and to financial systems worldwide. It is therefore fundamental that such systems are resilient to credit, legal, operational and other risks. In this respect, the Central Bank of Malta, as in other countries abroad, performs an oversight role as one of its responsibilities.<sup>1</sup> This includes:

- Maintaining systemic stability in payment systems by reducing the exposure of credit institutions to systemic risk;
- Fostering safety and efficiency of payment transmissions through systems design relevant to the financial market;
- Fostering secure and efficient payment instruments used by the public and by associated clearing facilities;
- Safeguarding an essential medium for the transmission of monetary policy; and
- Encouraging fair access to payment systems for market participants.

The Central Bank of Malta's oversight function of payment systems is based on international oversight principles or standards, namely the "Core Principles for Systemically Important Payment Systems".<sup>2</sup> The Bank identifies the more systemically important systems, which serve as an essential mechanism to support the effectiveness of financial markets in terms of their volume, value and risk which they pose. However, the Bank still remains vigilant of non-systemic systems which are nevertheless widely used when users have no readily available substitute payment methods.

At present, the only payment system in Malta that has been designated as systemically important is TAR-GET2-Malta, which is the component system providing the services of TARGET2 locally.<sup>3</sup> TARGET2 is the Real-Time Gross Settlement (RTGS) system for the euro, offered by the Eurosystem.<sup>4</sup> It is used for the settlement of central bank operations, large-value euro interbank transfers as well as for other payments. It provides real-time processing, settlement in central bank money and immediate finality. Only the Central Bank of Malta and the Malta Stock Exchange are direct participants in TARGET2-Malta since local credit institutions opted to become cross-border indirect participants through the TARGET2 component of their correspondent banks.<sup>5</sup>

Poorly designed payment systems can contribute to a systemic crisis if risks are not adequately contained. It is therefore necessary to identify and understand how risks of various types may arise or may be transmitted within the system and to determine where these risks are borne. Once they are properly analysed and assessed, an appropriate and effective mechanism must be devised to monitor, manage and control them. The main risks facing payment systems include:

Systemic risk: the risk that failure of one participant institution to meet its obligations in the system will result in other participants being unable to meet their obligations, thus leading to a chain reaction.
 Credit risk: the risk that a party within the system will be unable to meet in full its future financial obligations within the system.

<sup>&</sup>lt;sup>1</sup> The responsibility is given by virtue of article 34(1) of the Central Bank of Malta Act, and in accordance with the Treaty and Statute, which empowers the Bank to oversee and regulate the operation of, and the participation in, domestic payment systems as well as in any form of cash of security transactions, whether domestic or cross-border, that may be involved therein, and may itself establish and operate such a payment system. Furthermore, no person shall organise, establish, operate or participate in a domestic payment system unless such system is approved and authorised by the Bank.

<sup>&</sup>lt;sup>2</sup> Source: CPSS Core Principles (January 2001).

<sup>&</sup>lt;sup>3</sup> MaltaClear, which is the only securities settlement system in Malta, is designated as a systemically important securities settlement system.

<sup>&</sup>lt;sup>4</sup> The CBM Directive 6: Harmonised Conditions for Participation in TARGET2-Malta, constitutes the legally binding contract that lays down the legal framework for participation in TARGET2- Malta component services.

<sup>&</sup>lt;sup>5</sup> Refer to Box 2 in *FSR 2008* on indirect participation in Target2.

- **Liquidity risk**: the risk that a party within the system may have insufficient funds to meet its financial obligations in the short term, but will be able to do so in the future.
- **Operational risk**: the risk that operational factors (such as technical malfunctions or operational mistakes) will cause or exacerbate credit or liquidity risks.
- **Financial market risk**: the risk that a malfunction of the payment system may have consequences for the financial markets, which consequences can spread quickly throughout the financial sector and can put the whole system (and the real economy) at risk.

In order to reduce legal and systemic risks associated with the participation in payment and securities settlement systems, the Bank issued Directive No 2: Payment and Securities Settlement Systems.<sup>6</sup> This Directive aims to minimise the disruption to a system caused by insolvency proceedings against a participant in that system. At the current juncture overall risks facing payment systems in Malta appear low. Since only the Central Bank of Malta and the Malta Stock Exchange are direct participants in TARGET2-Malta, there is very limited systemic, credit and liquidity risk present. Operational risk, however, is always present since this relates to technical malfunctions or human mistakes. Nevertheless, during 2010, TARGET2-Malta did not encounter any major incidents that disrupted its work. Since TARGET2 provides real-time processing, settlement in central bank money and immediate finality, risks are deemed very low when payments are passed through it.

<sup>&</sup>lt;sup>6</sup> This is modelled on the requisites of the EU Directive 98/26/EC on settlement finality in payment and securities settlement systems as amended by Directive 2009/44/EC.

# 4. RISK OUTLOOK

The *FSR 2009* had concluded that the risk outlook for financial stability in Malta had improved although remaining, to a large extent, uncertain due to weak and uneven economic growth prospects. During 2010, macroeconomic conditions improved but the depth and sustainability of the improvement remain somewhat uncertain although the baseline forecast scenario suggests that the world economy will maintain its moderate recovery. Significant uncertainties also exist in particular within the EU, as required fiscal adjustments may result in weaker growth outcomes. Indeed, financial market players are likely to keep focusing on the feedback loop between sovereign risk and the financial system. These scenarios will likely influence the extent of the recovery in Malta, particularly in view of the country's strong dependence on external trade.

The improvement in macroeconomic conditions in Malta in 2010 was not reflected in better asset quality within the banks' loan portfolios. Indeed, credit risk increased during the year and posed the main threat to financial stability in Malta. It is expected to remain high during 2011. Notwithstanding the positive macroeconomic outlook and low unemployment rates, the economy is set to progress at a dual pace. Some sectors will probably maintain a strong momentum while others, where bank exposures are more significant, are likely to lag behind. Repayment difficulties by borrowers, which have already been manifested throughout 2010, may thus become even more pronounced during 2011, particularly in sectors where NPLs are already high.

According to survey results and the disparity between supply and demand for property, the property market is not likely to rebound in the short term. The current global uncertainty regarding the evolution of property prices in a number of countries is likely to limit interest from foreign buyers. This may probably affect the feasibility of some large construction projects which target the high-end property segment. While a moderate but uncertain global economic recovery may provide some stimulus to the service and export sector, the structural weaknesses present in the domestic economy, including loss of competitiveness, may also result in increased pressure on the repayment capacity of the corporate sector. Prolonged geopolitical risks in North Africa, particularly in view of material business links with Libya, are likely to exacerbate cash flow difficulties for a number of companies. In some cases a reversal in the interest rate cycle may aggravate repayment difficulties as thinned cash buffers prove insufficient. The end to historically low interest rates will add pressures on households and corporates alike. At the same time, relatively high inflation (which is particularly sensitive to possible spikes in international oil prices) is expected to further erode households' discretionary buffers, particularly since average incomes are not envisaged to regain a strong momentum.

Close monitoring and timely action are needed by banks in order to minimise potential losses which may arise from the continued high credit risk. As the impact from credit risk may result in unexpected losses, it is necessary for banks to adopt a proactive approach to provisioning. Although recorded losses on defaults have been contained, current international experience shows that concentration risk and pro-cyclicality can result in unsustainable losses. Indeed, further changes to the IFRS / IASs and to regulatory rules are envisaged to ensure that banks are able to have adequate provisioning buffers. As has been repeatedly advocated by the Bank and by international institutions, it is of utmost importance that possible under-provisioning in the banking sector in Malta be immediately addressed. The continuous upward trend in property prices for more than a decade has resulted in "disaster myopia" - an illusion that property prices never fall - with banks using a conservative valuation of collateral as a prime mitigating factor. However, as evident in a number of countries, a conservative estimate of the value of collateral should also take into account market concentration.

Banks channel a significant proportion of funds into domestic Government securities. This is also the case with the insurance and investment funds sectors. In view of the high concentration of MGS in the banks' investment portfolio, it is of utmost importance that public debt dynamics are kept under check. Strong public finances are a precondition for financial stability in view of high interconnectedness between the fiscal and

financial sectors. Similarly, counterparty exposures, mainly intragroup, must be adequately managed to reduce the risk of contagion.

The international financial crisis has highlighted the importance for banks to have strong loss-absorbing capital buffers in order to ensure their resilience under stressed conditions. Banks in Malta currently maintain high quality loss absorbing capital and the overall ratio of Tier 1 capital, which rose to over 10 percent at end-2009, is largely at par with that of the global banking system. In view of forthcoming changes to regulatory conditions calling for the maintenance of additional capital, it is imperative that even Maltese banks ensure that their Tier 1 capital covers all risks and that there is a greater buffer against future losses. This would strengthen banks' resilience, particularly as the environment is likely to remain challenging for the next few years. Going forward, the ability to boost solvency ratios may be constrained in view of greater competition for available funds, mainly due to significant refinancing needs by Government. Boosting capital via retained earnings may prove a better option than fully funding additional capital via the market. Institutions are therefore encouraged to adopt more conservative dividend policies.

From a liquidity perspective, banks' traditional reliance on customer deposits, in excess of customer loans, offers reasonable safeguards. However, even in this case there is no room for complacency since a significant proportion is in the form of retail deposits with very short-term maturity. Though in general retail depositors have not moved their funds across banks, increasing competition for retail deposits is likely to reduce this stickiness. Hence, there is scope for banks to rebalance their deposits and lengthen their maturity, thereby gaining more stability. On a more positive note, however, since funding from the ECB is a marginal source of financing for banks, the latter would be relatively unaffected by an eventual withdrawal of these exceptional support measures.

Current univariate stress tests support the assessment that banks in general are resilient to extreme shocks. Still the outlook remains challenging as legacy problems of credit risk and under-provisioning remain.

Throughout 2010, the challenges were probably more severe than anticipated, particularly in view of the escalation of the EU sovereign debt crisis. Likewise, the outlook for 2011 is uncertain and the severity of the challenges ahead depends on the extent and sustainability of the global economic recovery, on the duration of the EU sovereign debt crisis, as well as on the geopolitical risks in North Africa. These will likely shape the extent to which the economy embarks on a balanced growth path and on the possible feedback loop between the fiscal and financial sectors. Overall, the risk outlook is that financial stability conditions will remain challenging and suggests that strong vigilance is required, supported by robust risk mitigation practices.

The introduction of Solvency II may result in some asset reallocation by the insurance industry. However, this is not expected to give rise to any particular systemic risk in the insurance and investments sector.

The following Table depicts the changes in vulnerabilities and risks as identified in the 2010 FSR.

Main vulnerabilities and risks for the finance system as identified in the 2010 FSR	ancial	Type of risk	Change since 2009 FSR	Risk Position at 2010	Risk Outlook for 2011
Vulnerabilities existing within the financial s	system				
Concentration in the banks' loan portfolio an collateral towards property-related sectors a assets	nd and	Credit			-
Deterioration in asset quality not matched by adequate provisions, valuation losses and lo trading profits	y ower	Profitability			
A high level of short term deposits contributi maturity mismatch	ing to a	Liquidity and/or profitability			
Risk to profitability arising from significant deterioration in property prices		Profitability			
High Risk Retention Ratio leading to p severe losses in case of catastrophic events	oossible s	Profitability of the insurance sector and banks' collateral			
Risks emanating from outside the financial s	system				
A reversal in macroeconomic conditions and prolonged crisis in North Africa and Middle I impacting export industry and tourism secto	d/or East ors	Credit			
Protracted weaknesses in the construction a real estate related sector and propagation to economic sectors	and o other	Credit and profitability			1
Worsening of the sovereign debt crisis in the area	e euro	Profitability			
Inflationary pressures leading to an upward in interest rates	trend	Credit and profitability			
Lack of depth and limited liquidity in the don capital market	nestic	Infrastructure			
Contagion risk between the bank and non-b financial institutions	bank	Contagion			
Legend					
Increased somewhat	Elevated	l financial stabilit	ty risk		
Unchanged	Medium	financial stability	y risk		
	Moderate	e financial stabil	ity risk		

APPENDIX AND GLOSSARY

Appendix: Financial Soundness Indicators				U	COMPARA		ATORS 20	04 - 2010 -	ALL FIGU	RES IN %)				
Core FSIs	2004	2005	Dome 2006	stic Banks 2007	2008	2009	2010	2004	2005	2006	otal Banks 2007	2008	2009	2010
Regulatory capital to risk weighted assets	19.04	17.08	14.99	14.74	14.60	15.85	15.34	21.48	20.36	22.01	20.32	17.75	24.15	57.76
Regulatory Tier 1 capital to risk-weighted assets	15.41	15.56	13.49	12.69	12.55	12.98	12.35	18.35	18.99	20.80	18.98	15.66	21.34	55.31
Non-performing loans net of provisions to capital	41.61	33.62	29.85	26.29	26.53	31.28	44.43	29.87	20.10	12.48	10.58	10.80	12.66	6.58
Non-performing loans to total gross loans	10.32	7.38	5.98	5.19	4.90	5.60	7.27	6.45	3.92	2.80	1.82	1.70	2.58	3.01
Sectoral distribution of loans to total loans	00 0	00.0	00.0	ac o	20.0	00.0	000	00.0	14.0	67.0	000	00.0		070
Agricuiture	0.32	0.28	67.0	0.28	GZ-0	0.30	U5.U	0.20	0.15	0.13	60.0	0.08	11.0	01.0
Fishing	0.07	0.03	60.0 9	60.0	0.07	0.14	0.11	0.04	0.02	0.02	0.01	0.02	90.0	0.04
Mining and quartying	0.18	0.18	0.16	0.17	0.16	0.08	0.11	0.11	0.10	0.07	0.06	0.05	0.03	0.04
Manufacturing Floatisity and Strom and Air Conditioning Crumbs	6.00	4.88	3.91	4.22	4.23	3.47	3.17	3.69	2.52	1.77	1.42	1.31	1.32	1.13
Licuruty, gas, organi and Air Containuming outphy Water Sumply: Severane waste management and remediation activities	20.7	to:-	1.72 7 2 0	98.0	0.72	00.4	020	-00	80.0 87 U	0.0 ac 0		0.22	00-1 0	1.10
Construction	9.33	9.37	9.80	10.75	10.21	9.65	12.47	5.74	4.84	4.48	3.61	3.15	3.64	4.45
Wholesale and retail trade; Repair of motor vehicles and motor cycles	11.24	10.97	10.39	10.23	9.37	9.02	9.25	6.97	5.70	4.75	3.46	2.91	3.43	3.30
Transportation and storage	4.96	4.58	4.99	4.54	5.35	5.68	4.39	3.05	2.37	2.26	1.52	1.65	2.14	1.58
Accomodation and food service activities	7.18	6.23	5.92	5.46	4.61	4.77	5.04	4.41	3.22	2.68	1.83	1.42	1.80	1.78
Information and communication	0.09	0.09	0.13	0.11	0.28	0.27	1.31	0.06	0.05	0.06	0.04	0.09	0.10	0.47
Financial and insurance activities	2.46	2.32	0.73	0.62	0.45	0.38	2.02	2.00	1.71	0.64	0.35	0.21	0.17	0.72
Real estate activities [includes inputed rents of owner-occupied dwellings]	3.73	5.81	7.39	8.47	8.85	8.68	4.43	2.29	3.00	3.35	2.84	2.73	3.30	1.57
Professional, scientific and technical activities	1.43	1.06	1.32	1.46	2.29	2.97	0.78	0.88	0.55	0.60	0.49	0.71	1.13	0.27
Administrative and support service activities	0.13	0.13	0.13	0.16	0.16	0.21	1.11	0.08	0.07	0.06	0.05	0.05	0.08	0.39
Public administration and defence; Compulsory social security	0.20	0.86	1.46	1.32	0.88	1.31	1.34	0.12	0.44	0.66	0.44	0.27	0.49	0.47
Education	0.30	0.53	0.58	0.70	0.78	0.26	0.28	0.19	0.27	0.26	0.23	0.24	0.10	0.10
Human health and social work activities	0.58	0.52	0.46	0.50	0.48	0.44	0.42	0.36	0.27	0.21	0.17	0.15	0.17	0.15
Arts, entertainment and recreation	1.16	1.10	1.16	0.97	0.84	0.75	0.51	0.72	0.57	0.53	0.33	0.26	0.28	0.18
Other Services activities	0.00	00.0	0.00	0.00	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.11
Households and individuals (excl. Sole Proprietors)	28.07	31.11	32.98	36.30	35.64	37.13	37.90	17.26	16.06	14.94	12.17	10.98	14.01	13.40
Activities of extraterritorial organisations and bodies	0.00	00.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	00.0
Non-resident	18.96	17.68	15.38	10.93	10.95	9.37	9.08	49.54	56.94	61.26	69.95	72.44	65.70	67.75
Keturn on assets	1.52	1.59	1.77	1.48	5.0 1.0	2.06	1.35	1.40	1.40	1.19	0.98	0.62	1.81	1.12
Keturn on equity	12.01	12.88	15.28	13.72	-3.45	20.23	12.80	11.82	13.18	12.17	11.81	4.62	11.94	4.77
Interest margin to gross income	07.18	00.04	CC:+0	0 <del>1</del> .70	10.401	51.33 27 07	17.60	45.35	48.03	900C	17.00	59.49	49.61	40.40
Non-interest expenses to gross income	46.31	46.01	44.14 25 45	43.57	106.11	37.67	47.01	47.23 E4 EE	41.36 51.27	44.44	53.78	60.41 40 E1	26.32	31.09
Northinetest income to gross income Linuid assets to total assets	20.22 20.91	23.07	21.76	24.34	20.34	40.07 20.86	23.10 23.10	24.25	10.10	19.73	91.87	17.43	50.19 16.46	33:40 15.09
Liquid assets to short-term liabilities	46.68	53.03	50.32	49.03	45.09	43.66	44.55	53.43	55.72	52.54	52.67	49.26	47.53	47.80
Other FSIs														
Coverage ratio	24.69	27.10	29.67	26.18	24.15	21.80	19.20	25.88	28.83	31.82	28.86	30.19	31.82	30.68
Domestic Investment Securities to Total Assets	13.01	12.26	9.12	9.36	9.31	10.89	11.27	7.38	5.57	4.05	3.42	3.15	3.96	3.54
Foreign Investment Securities to Total Assets	18.42	19.18	17.93	16.17	14.83	13.94	12.78	29.16	31.62	32.18	23.83	18.24	23.19	24.78
Unsecured Loans to Total Lending	35.18	31.79	30.81	26.27	25.93	25.28	25.47	39.38	39.46	40.65	36.72	36.51	35.21	44.41
Assets to Total Capital and Reserves (*)	7.89	8.37	9.15	9.52	10.47	9.39	9.29	7.31	77.7	7.04	7.29	7.95	6.57	3.13
Large exposure to capital	92.08	125.27	133.09	126.92	131.55	130.80	129.76	88.06	128.93	120.24	122.02	99.15	79.44	23.40
Gross asset position in financial derivatives to capital	1.20	2.40	2.98	3.53	15.04	1.14	1.75	0.87	1.43	1.24	1.75	5.88	0.54	0.64
Gross liability position in financial derivatives to capital	3.70	2.99	3.33	2.36	8.30	3.89	6.07	2.66	1.87	1.41	1.13	5.07	1.64	0.94
Personnel expenses to non-interest expenses	59.17	54.03	53.84	55.86	56.79	56.05	55.47	38.84	40.86	36.79	25.65	26.37	40.06	47.42
Customer deposits to customer loans	137.19	135.79	130.36	141.18	126.07	125.58	132.77	102.45	101.93	78.43	69.32	61.60	79.94	102.33
Net open position in equities to capital	44.85	47.10	48.43	41.25	20.89	39.35	42.35	38.23	34.53	24.94	20.65	11.65	17.59	7.10
(*) expressed as a ratio.														

# GLOSSARY

**12-month average maturity mismatch:** calculated as the monthly average over a particular 12- month period of the difference between value assets and liabilities maturing within one month.

**Bid-to-cover:** A ratio that compares the number of bids received with the number of bids initially earmarked or accepted.

**Capital Adequacy Ratio (CAR):** A measure of the amount of a bank's regulatory capital expressed as a percentage of its risk-weighted assets.

**Compensation of employees:** Total remuneration in cash or in kind payable by an employer to an employee in return for work done by the latter.

**Core Capital Adequacy Ratio (CCAR):** Original own funds capital expressed as a percentage of risk-weighted assets.

**Corporate sector – deposit-to-loan ratio:** Deposits of public and private non-financial companies resident of Malta to their borrowing.

**Coverage ratio:** Specific and general provisions expressed as a proportion of non-performing loans.

**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.

**Credit-to-GDP ratio:** Credit-to-GDP is defined as lending to household, private and public corporations (excluding interbank and government loans) as a proportion of GDP.

**Customer deposit-to-loan ratio:** The proportion of customer deposits to customer loans. The ratio includes all currency deposits and loans of: (i) money market funds (ii) central government (iii) other general government and (iv) other remaining economic sectors, excluding the financial intermediation sector.

**Deposit guarantee scheme:** The Depositor Compensation Scheme is a rescue fund for depositors of failed banks which are licensed by the Malta Financial Services Authority (MFSA).

**Funding gap:** The difference between the amount of customer loans and the amount of customer deposits expressed as a percentage of the outstanding loans. A positive ratio indicates reliance on wholesale/interbank funding.

**General provisions:** Provision charges on the lending portfolio which may carry potential losses but have not yet been unidentified as such.

Gross Problematic Assets: Defined as the sum of non-performing loans and rescheduled facilities.

**Housing affordability:** The ratio of median household income to the income needed to qualify for a mortgage on a median-priced home.

Interest payment burden: The interest payments related to a debt but excluding principal repayment.

Interquartile range: This reflects the difference between the upper and the lower quarter.

Leverage ratio (assets to capital and reserves/shareholders' funds): Assets are equivalent to total assets. Capital and reserves/shareholders' funds include ordinary shares, share premium, perpetual preference shares and reserves and capital contributions. This indicates the extent to which assets are funded by other than capital and reserves. A high ratio indicates a high degree of reliance on external debt financing.

Liquid assets-to-short-term liabilities: In terms of Banking Rule BR/05/2007 issued by the MFSA, credit institutions are required to hold a minimum liquid-asset proportion of 30% of the total deposit liabilities net of deductions (specified in the Rule). For the purpose of this ratio, liquid assets held are deemed to be the total assets as specified in the Rule and include 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 investments in Collective Investment Schemes. Short-term liabilities are also specified in the Rule and include the amounts owed to banks and customers, which amounts are withdrawable on demand or short notice; which have a remaining time to maturity of three months or less; which can be withdrawn at any time against a penalty; and any other borrowing which is repayable either on demand or with a remaining term to maturity of seven days or less but excluding intragroup borrowings.

**Liquid assets-to-total assets ratio:** Liquid assets as specified in Banking Rule BR/05 issued by the MFSA as a proportion of total assets.

**Liquid coverage ratio:** The ratio is calculated as "pre-defined" liquid assets as a percentage of total net cash outflows over the next 30 calendar days subject to a stress scenario. The standard requires that the value of the ratio be no lower than 100%.

**Living wills:** This is a tool for crisis management, as they stipulate recovery and resolution plans which the bank is required to have in place should it fall under extreme stress. The recovery plan is about financial continuity, the measures the bank would take to maintain adequate capital and liquidity levels in times of financial stress.

Loan-to-Deposit ratio: The value of loans expressed as a proportion of the value of deposits.

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

**Net open position of equities to capital:** The sum of on-balance-sheet holdings of equities excluding shares issued by a subsidiary or parent Monetary Financial Institution. Capital is equivalent to regulatory capital.

**Net open position in equity of banks to total own funds:** The sum of on-balance-sheet holdings of equities excluding shares issued by a subsidiary or parent Monetary Financial Institution. Capital is equivalent to regulatory capital.

**Net stable funding ratio:** The amount of available amount of stable funding to the amount of required stable funding. This ratio must be greater than 100%.

**Non-performing loans:** Credit facilities with payments of interest and/or capital overdue by 90 days or more as well as those facilities 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.

**One month maturity mismatch:** The difference between the value of loans and deposits maturing within one month.

Operating surplus: Income obtained from production activities as measured in the national accounts.

**Other remaining economic sectors:** These include: (i) insurance companies and pension funds; (ii) other financial intermediaries and financial auxiliaries; (iii) non-financial companies (public and private); and (iv) households and non-profit institutions serving households.

**Price Discovery:** The determination of the price for a specific security through basic supply and demand factors related to the market.

**Price-earning ratio:** A valuation ratio of a company or industry current share price compared with its pershare earnings.

**Probability of default:** Likelihood that a debt will not be paid on time. As per Basle II definition a loan falls into default when its repayment is 90-days past due.

**Pro-cyclicality:** Mechanisms through which financial sector activities can amplify natural fluctuations in the economic cycle, and which may be particularly disruptive during an economic downturn or when the financial system is under strain.

**Re-pricing gap:** Useful indicator to measure the sensitivity to interest rate risk. The larger the gap between the re-pricing of assets and liabilities the greater the interest rate risk.

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

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

**Risk-reward ratio:** Compares the expected returns of an investment with the amount of risk undertaken to capture these returns.

**Risk-weighted assets:** These are computed in accordance with the Capital Requirements Directive (CRD) which specifies weighting according to the degree of risk attached to the particular asset.

**Securities market programme:** Interventions by the Eurosystem in public and private debt securities markets in the euro area to ensure depth and liquidity in those market segments that are dysfunctional. The objective is to restore an appropriate monetary policy transmission mechanism, and thus the effective conduct of monetary policy oriented towards price stability in the medium term. The impact of these interventions is sterilised through specific operations to re-absorb the liquidity injected and thereby ensure that the monetary policy stance is not affected.

**Specific provisions:** Provisions set aside for doubtful/loss facilities. Specific provisions should at least be equal to the loss not covered by collateral in the event of default.

Solvency II: A set of regulatory requirements for insurance firms that operate in the European Union.

**TARGET2:** The real-time gross settlement system (RTGS) system for the euro, offered by the Eurosystem. It is used for the settlement of central bank operations, large-value euro interbank transfers as well as for other euro payments. It provides real-time processing, settlement in central bank money and immediate finality.

Tier 1 Capital: The bank's core capital mainly composed of equity capital and disclosed reserves.

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

**Tier 3 Capital:** Capital held by banks at the discretion of the national supervisor for the sole purpose of meeting a proportion of the capital requirements for market risks. It is generally considered of lower quality compared with Tier 1 and Tier 2 capital.

UCITS: Undertakings for Collective Investment in Transferable Securities.

**Unencumbered liquid assets:** Undertakings for Collective Investment in Transferable Securities.

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