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COMMISSION STAFF WORKING PAPER

EUROPEAN FINANCIAL STABILITY AND INTEGRATION REPORT 2010

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EXECUTIVE SUMMARY

The most severe global economic and financial crisis since World War II continued sending shock waves through the financial markets, entering a new stage in 2010. The European Union has responded to this situation with an ambitious and intensive programme of regulatory reform in the sector of financial services. A significant part of the measures to provide a stable and integrated framework for financial services in Europe have already been proposed or will be tabled in the near future.

Member States' measures to avoid a meltdown of their financial sector and limit the impact of the crisis on the real economy succeeded in stopping the downward spiral of the crisis during the period 2007-2009, but at the same time these measures placed a heavy burden on the fiscal position of many economies. As a result, investors reassessed sovereign risk in several euro area countries and rattled sovereign bond markets.

The **2010 European Financial Stability and Integration Report** looks into the close links between stability and integration of the financial sector that have become apparent in this new phase of the crisis. Chapters 1 and 2 provide an **account of market developments in the financial sector** and the EU **policy response** during 2010. In addition, the report takes a forward-looking approach in an attempt to cast a glimpse into the future shape of the European financial sector once the crisis is overcome.

Financial integration has been and remains a major policy objective of the European Union in order to enhance economic efficiency, stability and growth. A more integrated and innovative financial sector reduces financial intermediation costs and provides financial instruments that better meet the demands of investors and borrowers. By providing better opportunities for risk diversification and better access to funding, financial integration can also contribute to financial stability. However, while the expected efficiency gains have largely materialised, the process of financial integration of the past decade was also associated with an unprecedented accumulation of risks. Unsustainable credit growth ensued and part of it was quite clearly linked to better opportunities for cross-border activities and competitive pressure to seek higher yields in riskier market segments. At the same time, EU financial regulation and supervisory practices lagged behind the highly integrated, fast expanding and sophisticated financial sector. **The report shows how the ensuing crisis has not only undermined economic and financial stability, but also led to cross-border financial disintermediation during the crisis and diverging trends unfolding in certain market segments.**

The analysis of developments in the financial markets during 2010 reveals some reassuring facts alongside new issues for policy attention. Chapter 1 of the report shows that **the resilience of the financial sector and market stability improved**, although large parts of the necessary process of restructuring in the banking sector are yet to come. Also, while systemic risk affecting the entire EU financial sector receded over the past year, distinct **vulnerabilities remain**: credit risk has become more country- and institution-specific, the outlook for continued strong bank earnings remains uncertain, roll-over risk remains present in the sovereign debt market and the risk of crowding-out of private debt by sovereign debt issuance will increase in the recovery.

Low interest rates and government support favoured bank profitability and recapitalisation, but **limited lending to the non-financial sector and in particular to SMEs remains a concern**, even if in 2010 this was mostly due to subdued demand for bank credit. Larger non-financial companies were able to reorient themselves towards tapping domestic or cross-border corporate bond markets. This may signal a change in the structure of financial

intermediation in Europe, which has so far been mostly reliant on the banking channel. At the same time, further reorganisation in the banking sector might occur in a number of countries when normal market conditions are restored.

The deleveraging process in the banking sector that accompanied the crisis has affected more prominently the cross-border flow of capital, not only in Europe but also on a global scale. The reassessment of risk led to a sudden deterioration in access to foreign finance for banks in some countries, followed by strong disintermediation across borders. A retrenchment of cross-border lending can be detected in terms of both flows and diverging prices in 2010. Nevertheless, the main cross-border market integration channels remain in place, as illustrated by the resilience of cross-border branches and subsidiaries, cross-border membership of trading and post-trading platforms and further progress achieved in migrating to a Single Euro Payments Area. Therefore, **financial integration is likely to deepen further at a more sustainable pace when financial stability is restored.**

Disruptions in the functioning of the inter-bank and wholesale money markets also suggest that integration in these markets was not as solid and advanced as often assumed before the crisis. These markets receded along national lines as risk assessment became more country-specific. The trend was mainly driven by the perceived vulnerability of some banking sectors interlinked with the fiscal weaknesses of the respective sovereigns. This is an example of how financial stability problems can have a direct impact on the process of financial integration. It shows the importance of continuing policy measures at both EU and national level for ensuring stability and adequate interconnection of European financial market infrastructures. It also points to the need for full implementation of fiscal consolidation programmes in order to restore market confidence.

Thus, the financial turmoil has put the integration of EU financial markets to the test. **The policy response has consequently relied on further measures fostering both stability and integration.** Learning from the lessons of the crisis, the EU has embarked on an ambitious process of strengthening the regulatory and supervisory framework to prevent future crises. These policy developments are covered in Chapter 2.

In this policy process, **the year 2010 marked decisive progress in moving from short-term crisis responses to implementing a policy agenda oriented towards re-building a sounder financial sector able to foster sustainable growth.**

The main building blocks of the regulatory reform aim to reinforce the bed-rock foundations of the financial system: appropriate levels of high quality capital in the banking sector and good supervision of financial institutions. Thus the **EU policy agenda in 2010 primarily focused on developing a new institutional framework, while enhancing crisis prevention, resolution and efficiency.**

- The crisis made apparent the mismatch between the highly integrated EU financial markets and predominantly national *supervisory* structures. The creation of a new architecture of financial supervision in Europe, consisting of three new European Supervisory Authorities for the banking, securities markets and insurance and occupational pensions sectors, is a key moment in the Commission's reforms. These agencies have started operating in January 2011. The European Systemic Risk Board, which started operating also in January 2011, is charged with monitoring and issuing recommendations regarding the potential threats to the stability of the European financial system.
- Enhanced *capital* requirements will contribute to *crisis prevention* as strengthening micro-prudential regulation is the first line of defence. The Commission contributed to the new Basel agreement on bank regulation (Basel III) in 2010, to be introduced

in an upcoming amendment of the Capital Requirements Directive (CRD IV). The crisis has shown that crisis prevention is not enough. Hence work progressed towards ensuring an adequate framework for the orderly resolution of failing financial institutions, in particular in a cross-border setting.

- In addition, the European Financial Stabilisation Mechanism (EFSM) and the European Financial Stability Facility (EFSF) were established in 2010 to provide up to EUR 500 bn to Member State governments and reduce tensions in euro area sovereign debt markets. In December, the European Council agreed to establish the permanent European Stability Mechanism (ESM) that will come into existence in mid-2013. The ESM complements the new framework of reinforced economic governance which aims to ensure effective and rigorous economic surveillance in the EU.

While efforts are focused on reinforcing stability and furthering integration, **more attention is paid now to improving the efficiency of the financial sector for the benefit of its users.** A series of policy measures were advanced with the Single European Payments Area as the flagship. **Policy developments are also benefiting from increased attention towards qualitative aspects.** Enhanced focus on structural issues related to the organisation and corporate governance of financial institutions, more integrated and comprehensive impact assessments and greater emphasis on the benefits accruing to consumers are likely to improve the quality of policy making in this area.

Finally, in parallel to the EU policy response to the financial crisis, the financial sector has itself started to adjust to the recent crisis experiences and emerging regulatory requirements. Among many other issues, the crisis has reopened the discussions around the advantages and disadvantages of various bank business models for cross-border banks. The report's special feature is based on the replies of eight large pan-European banks to a questionnaire on issues related to their funding functions and risk management. The crisis has challenged different arrangements and models adopted by EU cross-border banks and triggered internal restructuring. The various newly adjusted forms of funding, liquidity and risk management seem to be independent of the legal form selected for entry (i.e. branch or subsidiary). A clear conclusion emerges from this study: the risk management function has become more centralised, and most of the banks are moving in this direction, which is more compatible with safer and more integrated financial intermediation.

CHAPTER 1: FINANCIAL STABILITY AND INTEGRATION — MARKET DEVELOPMENTS

1.1 MAIN MESSAGES

The crisis has negatively impacted both the stability and degree of integration of the European financial sector. Early in the crisis, the stability of the banking sector was severely tested. More recently, and particularly since spring 2010, developments in the broader EU financial sector have been shaped by the events on sovereign debt markets, as investors reassessed sovereign risk in several peripheral EU and euro area Member States. This has triggered a new negative feedback loop between public finances and the banking sector, complicating the process of banks' balance sheet repair in the EU. However, the resilience in the financial sector and market stability improved in 2010, although the process of reorganisation in the banking sector is far from over and distinct vulnerabilities remain.

In this context, the integration of financial markets seems to have reached a standstill and has in some cases, such as sovereign, money and credit markets, been reversed, as measured by cross-border financial flows and price differences. Since the beginning of the crisis, diverging trends across some national financial markets and cross-border financial disintermediation have been visible, indicating that the rapid convergence prevailing in the pre-crisis period was partly a by-product of the credit boom and credit-risk misperception. However, the main cross-border market channels have remained in place, as illustrated by the resilience of cross-border subsidiaries and branches, cross-border membership of trading and post-trading platforms and further progress achieved in migrating to a Single Euro Payments Area. Once financial services providers recover and economic activity strengthens, the financial integration process is likely to resume at a more sustainable pace, supported by improvements in the regulatory and supervision framework, as reported in the next chapter.

This chapter illustrates in Section 2 the main developments in the major segments of financial markets over the year 2010. Section 3 focuses on the recovery of the banking sector, in particular as regards the banks' funding conditions (liquidity), their balance sheet repair (solvency) as well as more structural changes (including capacity reduction and mergers and acquisitions). It also studies the functioning of the banking sector's financial intermediation role. Section 4 presents the major developments within the insurance sector, including its main differences vis-à-vis the banking sector and the remaining challenges. The analysis presented in the above-mentioned sections covers both stability and integration aspects. Section 5 focuses on developments in the markets' infrastructures. The chapter concludes (Section 6) with an overall assessment of the major macro-financial stability risks and challenges for the financial system in the foreseeable future.

1.2 FINANCIAL MARKET DEVELOPMENTS

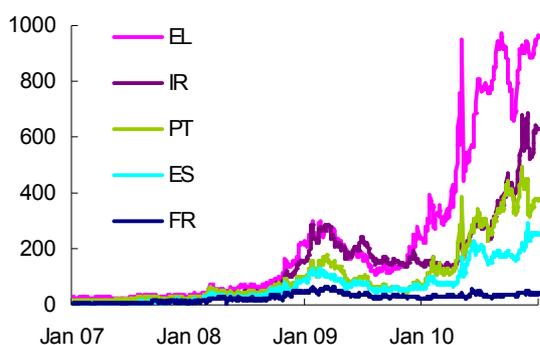
In 2010, financial markets were shaped by two very divergent developments. On the one hand, the ongoing economic recovery — although partial and uneven across countries — as evidenced by positive growth figures in the EU as a whole and robust corporate earnings, and sustained accommodative monetary policies supported risk-taking in financial markets. On the other hand, financial-market sentiment was adversely affected by mounting concern about sovereign risk, in particular in the euro area. In two euro area Member States, tensions in sovereign bond markets reached a critical point, prompting the need for financial assistance from the EU and the IMF. The sovereign debt market tensions also spilled over to

other market segments, such as money and inter-bank markets, as investors feared spill-over effects to the wider financial sector and the real economy. At EU level, nevertheless, stability in the financial system as a whole improved, supported by the still accommodative monetary policy stance and continued public sector support for the financial sector.

Bond markets

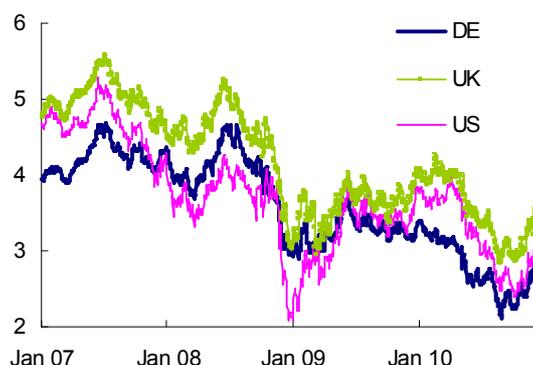
In 2010, EU sovereign bond markets experienced extreme tensions, with spreads rising dramatically on Greek, Irish and Portuguese sovereign bonds on the back of markets' concern about credit risk (due to high public debt and publicly guaranteed contingent liabilities) and funding risk (Chart 1.2.1). In early May, Greek spreads reached peak levels amid the market perception of an acute roll-over risk, fuelled also by successive downgrades by credit rating agencies in April. As the dramatic rise in yields in Greece spilled over to some other peripheral euro area Member States, firm policy initiatives had to be taken. This prompted the European Council in May to extend financial assistance to Greece in the form of bilateral loans, while the EFSF and EFSM were set up to assist troubled euro area Member States (see Box 2.1 on 'Policy measures to stabilise euro area sovereign bond markets' in Chapter 2). However, investors remained concerned that fiscal consolidation, which was set as a condition for activation of the EFSM and the EFSF, would prove difficult to deliver. As a consequence, spreads in Greece, Ireland and Portugal resumed their upward trend from June. In the autumn, Irish spreads continued to move higher, on worries about the higher than expected costs of the bail-out of the banking sector and a ballooning government deficit, and Portuguese spreads followed on government deficit worries. As markets started to focus on what would happen when the EFSF expires in 2013, the European Council agreed on 29 October to set up a permanent crisis resolution mechanism. However, the inclusion of a provision for private sector involvement was badly received by already nervous bond markets and led to a renewed widening of peripheral bond spreads. Sovereign bond spreads in other Member States, so far unaffected, such as Italy and Spain, widened as well, signalling that the crisis was stretching beyond its original boundaries. After the agreement by the Eurogroup on 29 November on financial assistance for Ireland and the outlining of the ESM, peripheral sovereign bond spreads started to narrow. After some further hikes towards the end of the year, spreads started to narrow again as of early January.

Chart 1.2.1: **Sovereign bond spreads to German bund, selected Member States (in basis points)**



Source: Reuters Ecowin

Chart 1.2.2: **Benchmark 10-year government bonds in selected countries (in %)**



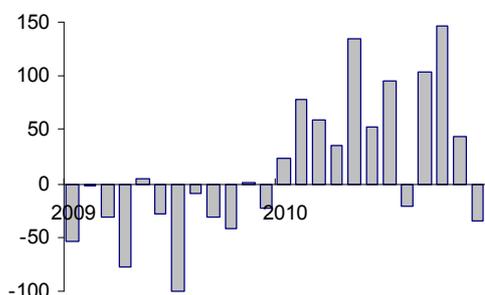
Source: Reuters Ecowin

In the context of market tensions, benchmark sovereign bonds enjoyed the role of safe haven. In the first part of the year, US and euro area benchmark yields were mostly on a downward path, driven by renewed concerns about global growth and stability and the Greek sovereign debt crisis in spring (Chart 1.2.2). The 10-year German Bund yield reached its lowest level ever (1.11%) at the end of August. In autumn, however, benchmark yields rose quite

significantly, with the 10-year German bund yield closing the end of the year 85 bps above its trough in summer. This rise of benchmark yields was driven by abating risks to the global economic recovery and increasing inflation expectations.

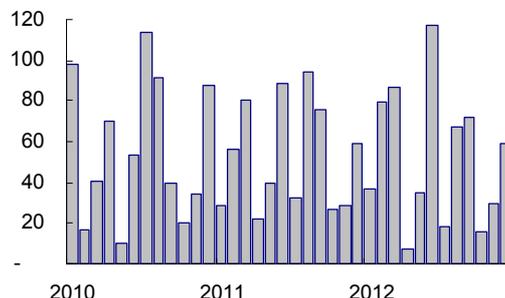
In spite of tensions in the euro-area sovereign bond markets, sovereign bond issuance — within and outside the euro area — was successfully placed although at higher costs for some Member States. Chart 1.2.3 shows that net issuance of euro-denominated sovereign bonds in 2010 (i.e. ‘par value of issued bonds’ minus ‘par value of maturing bonds’) was high relative to previous years. Due to the combination of high deficits and maturing sovereign debt, the EU public sector’s financing needs are expected to have peaked in 2010 but will remain at elevated levels over the coming years. In general, the high supply of sovereign bonds caused only some temporary difficulties with placing them on the market, although an increasing amount of maturing bonds may continue putting pressure on the primary markets (Charts 1.2.4 and 1.2.5). Further, the re-evaluation of some government bonds as risky and volatile assets induced in several cases structural adjustments in the investment strategy of institutional investors facing restrictions, either of a regulatory nature or from internal codes of practice.

Chart 1.2.3: Net issuance of sovereign bonds (in EUR billion)



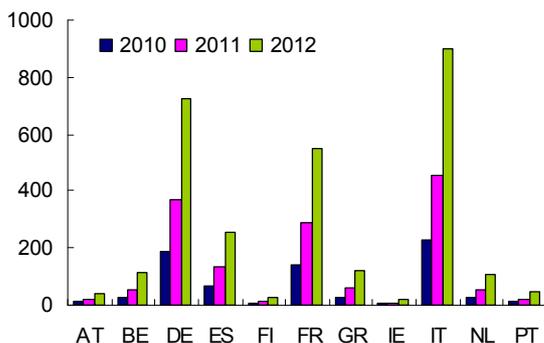
Source: Bloomberg

Chart 1.2.4: Redemptions of sovereign bonds (in EUR billion)



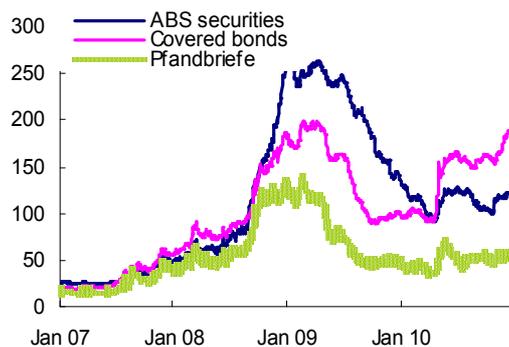
Source: Bloomberg

Chart 1.2.5: Government’s refinancing needs, selected countries (in EUR billion)



Source: Bloomberg

Chart 1.2.6: Euro area covered bonds, spread to the corresponding swap rate (in basis points)



Source: Reuters Ecowin

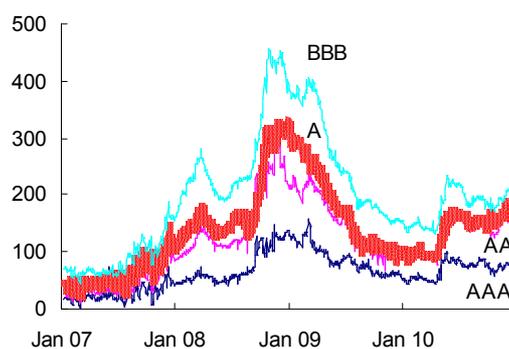
Overall, however, the worsening situation on sovereign debt markets together with improving corporate balance sheets led to a reversal in the usual risk premium of corporate credit to sovereign credit, which is reflected by the index of European sovereign credit

default swaps (SovX WE CDSs¹) trading well over its corporate equivalent (iTraxx Europe) since spring 2010. The sovereign debt crisis also triggered spill-over effects into the covered bond markets. While the functioning of the latter further improved, as illustrated by robust issuance volumes, the expiry of the ECB's covered bond purchase programme in June led to often higher funding costs, i.e. higher covered bond spreads (Chart 1.2.6). In the corporate bond market segment, yield spreads to the benchmark narrowed due to the economic recovery at the beginning of the year, but re-widened later on, in spring and autumn, on concerns about adverse spill-over effects from the sovereign bond crisis on the domestic economies (Chart 1.2.7). Spreads on investment-grade corporate bonds issued by non-financial corporations ended the year 20 to 80 bps higher than the start of the year, with the strongest widening in the lower grade segments. Spreads on bonds issued by financial corporations moved up proportionally more, reflecting, in particular, market concerns about banks' exposure to sovereign debt holdings.

Equity markets

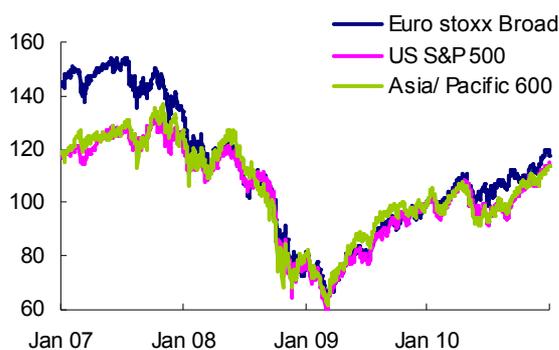
Over 2010 stock indices of both developed and emerging markets were supported by positive macroeconomic data, robust actual and expected corporate earnings results, and expectations of sustained low interest rates, despite periodic concern about the sustainability of the recovery and the impact of government's quantitative measures on the economy and markets. Stock prices in the US, as measured by the Standard & Poor's 50 index, ended the year with a positive overall return of 10.9% and the Asia Pacific 600 index, a broad index of emerging Asian stocks, gained 9.8% (Chart 1.2.8).

Chart 1.2.7: Euro area corporate bond spreads (in basis points)



Source: Reuters Ecowin

Chart 1.2.8: Global stock market performance (basis Jan 2010)



Source: Reuters Ecowin

Chart 1.2.9: EU stock market performance (basis Jan 2010)



Source: Reuters Ecowin

Meanwhile, in the EU, the equity market performance in several Member States was counterbalanced by concerns about contagion from the sovereign debt crisis. The Dow Jones Euro Stoxx 50 index closed 5.9% lower than the start of the year, while the German Dax

¹ Including Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden and the UK.

index gained 16%² (Chart 1.2.9). Amongst economic sectors, the euro area banking sector was adversely affected primarily by concerns about its exposure to sovereign debt holdings. The unknown impact of the regulatory overhaul under Basel III and proposals for the extra taxation of the financial sector also maintained some uncertainty in the markets. The overall performance of euro area banking stocks over the full year was a negative 16.4%, with banking shares being particularly hit in e.g. Greece and Ireland. As a comparison, US banking shares fared significantly better (+16% over 2010) supported by generally robust bank earnings announcements.

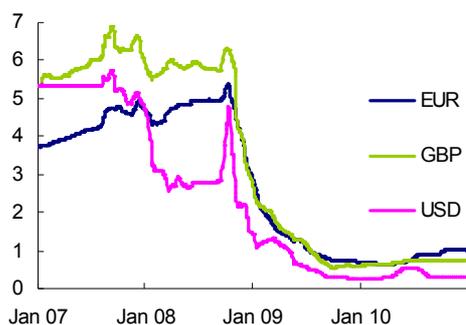
1.3 BANK SECTOR DEVELOPMENTS

1.3.1 Funding and inter-bank market developments

Following severe disruptions in the wholesale markets in autumn 2008, a range of policy measures have been taken to re-establish normal conditions in these markets, e.g. full allotment of liquidity in central bank operations and the provision of state guarantees for bond issuances. Since 2009, confidence in inter-bank markets has gradually returned, and in the first quarter of 2010 conditions stabilised further. However, between April and July money market rates began to rise slightly, both in the US and the EU (Chart 1.3.1). The US Libor increased more than the Euribor in spring, partly reflecting the shortage of dollars available to EU banks. Further, while the ECB was still offering ample liquidity via long-term refinancing operations (LTROs), the Federal Reserve had stopped its term auction facility (TAF) and some other liquidity providing mechanisms, putting upward pressure on the US Libor.

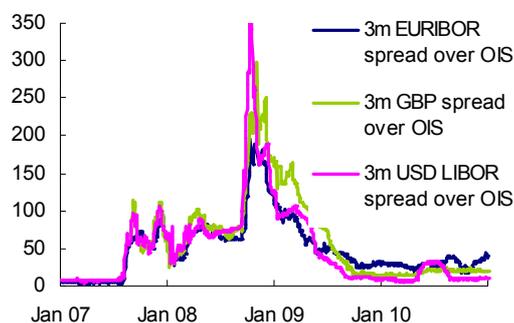
In late July and August, money market rates in the US and the euro area diverged, as US rates dropped (and stayed at these levels) amid reports that the Federal Reserve might loosen monetary policy in a more difficult US economic environment. In the euro area, the Euribor increased in the latter half of the year (but remained close to 1%) as the ECB continued its process of gradually phasing out unconventional measures, putting upward pressure on money market rates. The 3-month Euribor-OIS spreads, which are widely seen as the central gauge of counterparty risk on wholesale money markets, widened at times on concerns about European banks' exposure to sovereign debt of peripheral euro-area Member States (Chart 1.3.2). However, the interbank-OIS spreads remained contained, significantly below the levels prevailing in the months prior to the Lehman default in 2008, although substantially above the levels prior to the onset of the global financial crisis in August 2007.

Chart 1.3.1: Interbank rates, 3 month maturity, selected currency areas (in %)



Source: Reuters Ecowin

Chart 1.3.2: LIBOR spreads to overnight index swaps (OIS), selected currency areas (in basis points)



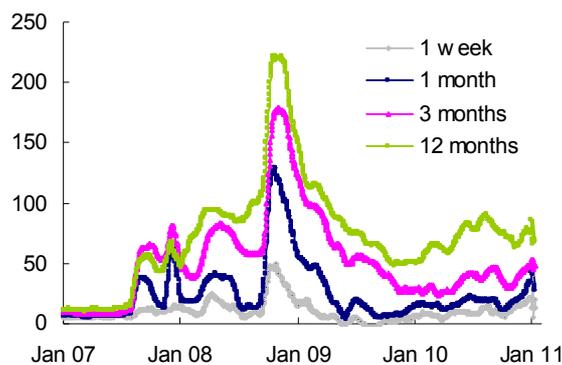
Source: Reuters Ecowin

² All returns are in local currencies.

Overall, money markets in the euro area as a whole have improved, as reflected in the — albeit so far limited — decline in recourse to the ECB’s deposit facility in the latter half of 2010. Nevertheless, market concerns about counterparty credit risk linger, as evidenced by the continued high spreads between the unsecured (deposit) and secured (repo) interbank lending rates (Chart 1.3.3), as well as the declining unsecured funding activity, in particular in the longer-term maturity segment.

Wholesale market tensions over 2010 defined a new set of vulnerable banks, in particular those more exposed to developments in ‘peripheral’ Member States where sovereign debt risk had risen. In parallel to challenging conditions on sovereign bond markets, several banks located in these Member States encountered difficulties in accessing wholesale finance on money markets. Since the ECB continued its full-allotment policy³, these banks were able to replace inter-bank funds with central bank funds.

Chart 1.3.3: Spreads between euro area interbank deposit rate and repo interest rate, selected maturities (in basis points)



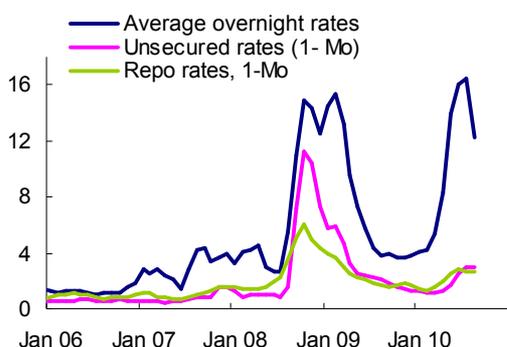
Source: Reuters Ecowin, Commission departmental calculations

The tensions on government bond markets had also a clear though temporary impact on banks’ capacity for, and costs of, tapping long-term debt security markets. In spring and autumn, when the sovereign debt crisis intensified, banks’ costs of issuing long-term debt securities surged. The annual growth rate of debt securities issued by the financial sector was slightly negative in Q3. However, the decline in debt securities issuance should be seen as a general trend since 2009, as banks have favoured the issuance of shares, reflecting their efforts to raise capital in order to strengthen their balance sheets. The annual growth rate of shares issued by the banking sector was strongly positive (about 6%), as was the case in 2009. The growth rate nevertheless declined during the year (from 8.2% in Q1 to 5% in Q3), amid the rising cost of equity financing, i.e. declining share prices (see Section 1.2). Looking forward, over half of the outstanding bank bonds will be maturing in the euro area (like in the UK and the US) in the period 2011-2013.

The disruptions in the functioning of the inter-bank and wholesale money markets across the euro area periphery are also reflected by some financial integration indicators. Both price- and volume-based indicators show increased volatility in 2010 and a retrenchment along national lines in some money market segments. Integration was not as advanced as suggested by indicators previously. Price-based indicators show that in the first and third quarters of 2010 the dispersion of funding rates across Member States converged to the low pre-Lehman levels. However, these improvements in integration did not last into the second and fourth quarters of 2010 when cross-border funding costs quickly diverged (Chart 1.3.4). The increase in dispersion expanded beyond the euro area to the EU Member States in general, as illustrated by the coefficient of variation of the 3-month money market rates (Chart 1.3.5).

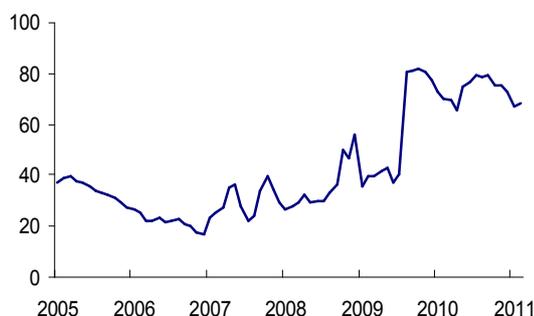
³ Against this background, the ECB announced on 2 September that it would maintain its fixed rate full-allotment policy for main refinancing operations as long as needed and at least until January 2011.

Chart 1.3.4: Cross-country standard deviation of euro-area interbank rates (in basis points)



Source: ECB, Financial Indicators

Chart 1.3.5: Divergence of 3-month money market rates in EU countries outside the euro area (coefficient of variation in %)



Source: Eurostat, Commission departmental calculations

As regards quantity-based indicators, the share of euro area counterparties in money market transactions has been on a declining trend since the beginning of the crisis. In 2010, the declining share of cross-border intra-euro area repo operations stabilised but the share of intra-euro area unsecured transactions continued to decline. These somewhat diverging trends illustrate the persistence of credit risk in certain segments of the market, which has only been alleviated by collateralised transactions. The difference between developments in the two segments⁴ is even more pronounced in respect of domestic counterparties. For the unsecured volumes, the increase in domestic transactions was reversed in 2010 and replaced by transactions outside the euro area, whereas for repo transactions the share of national counterparties continued to rise (Chart 1.3.6). These seemingly paradoxical movements in cross-border money market activity in the euro area can only be explained by the liquidity interventions of the ECB, which became the preferred counterparty for certain banks in peripheral Member States. While these liquidity injections are likely to have contained the increasing dispersion of inter-bank rates, they have also reduced the need of banks to search for domestic and cross-border funding sources. It is, however, safe to assume that without the ECB interventions, the overall picture of financial integration in the euro area money market would have looked much worse. In particular as the diverging trends in the market took place along some national fault lines — the euro area core versus the periphery. This illustrates how actions to improve stability have impacted cross-border integration in the crisis.

Chart 1.3.6: Geographical counterparty breakdown in unsecured and repo euro-area money markets (2006-2010; in %)

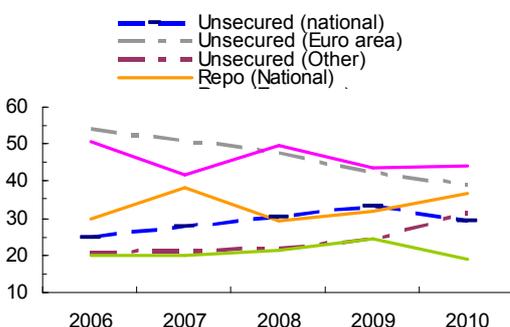
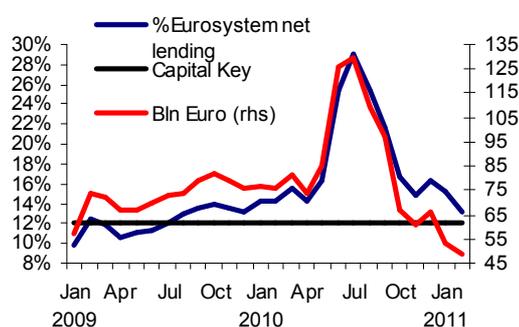


Chart 1.3.7: Spanish banks' reliance on ECB liquidity (in %)



⁴ For more detail, see the euro area money market survey of September 2010, the ECB euro money market study of December 2010 and the ICMA survey of September 2010.

In addition, certain disruptions of some cross-border infrastructure arrangements which worked well in the pre-crisis period proved an obstacle for the normal functioning of markets under conditions of stress. The case of the Spanish post-trade infrastructures, which lacked interoperability with the European ones, is quite illustrative of the evolution of the Spanish repo markets in the crisis. This is discussed in more detail in Box 1.1 below.

**Box 1.1: The integration of market infrastructure during the crisis:
the case of the Spanish repo market**

The case of the Spanish post-trade infrastructures illustrates the fact that market participants benefit from more integrated financial markets, also in times of market stress. The Spanish repo market lacked interoperability with the other European repo markets. Although this circumstance did not pose any difficulty in the past, during the Greek crisis, Spanish financial institutions suffered from limited possibilities to obtain refinancing through their traditional operations in the repo market and had to rely more heavily on Eurosystem liquidity. By the peak of the Irish crisis this dysfunctionality in the repo market was largely solved and reliance on ECB funding dropped significantly (Chart 1.3.7).

One of the reasons for the quick deterioration of the Spanish repo market in April and May was the lack of integration and interoperability of their post-trade infrastructures with European ones, such as international custodian securities depositories and, more importantly, any of the European central counterparties (CCPs). During the boom years the Spanish repo market worked smoothly using a domestic central securities depository (Iberclear) and local clearing and settlements platforms (MeffClear) that were known to be among the most efficient in Europe. But in April and May the lack of smooth and seamless integration in infrastructures was a big disadvantage. Without being a member of a European CCP there was no international pooling of collateral and therefore it was impossible to reduce the positive correlation risk between a counterparty and the collateral posted.

Since August, taking advantage of the stabilisation period that followed the stress test published EU-wide, two emergency steps were taken. Given the difficulties that Spanish financial institutions were facing in order to participate in a CCP as a group, some of them acted on an individual basis and became clearing members (more than 4) and dealers (more than 6) in the European CCPs, allowing the rest of the financial system to operate through them. Further, MeffClear improved the links with international financial institutions, thus increasing the volumes traded since August significantly (monthly growth of about 30% since July). The prompt measures taken by the Spanish market participants, both banks and central counterparties (CCPs), to improve cross-border access helped to reduce the reliance of Spanish banks on the Eurosystem facilities.

The positive development would not have been possible without clear improvements in the Spanish risk fundamentals. The integration of Spanish institutions into the global international clearing system is still an ongoing process, with new banks joining the ranks of participants in the CCPs, either as direct members or through a global custodian bank, thus contributing to the relief of the Spanish repo market.

1.3.2 Banking sector reorganisation: strengthening of capital ratios, consolidation and M&As

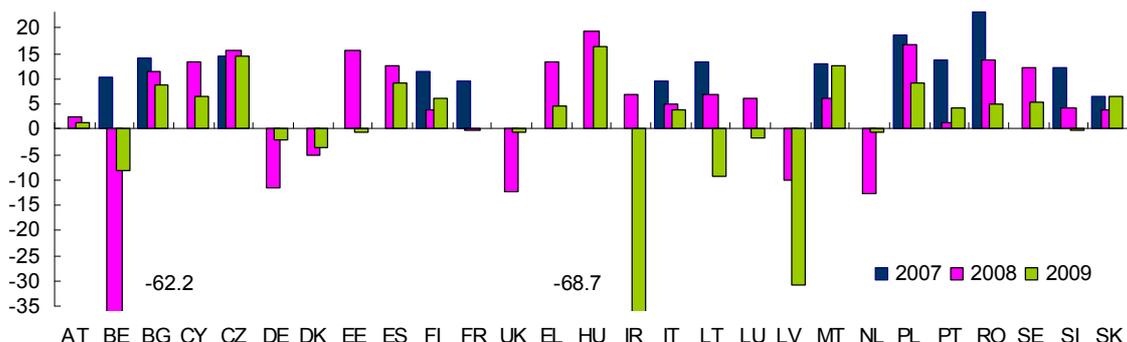
In 2010, banks' solvency as measured by capital ratios improved in an environment conducive to profit generation. Banks benefited from continuously strong net interest income, in general lower loan loss provisions and stable income streams from fees and commissions. However, despite improvement of the stability of the sector as a whole, some pockets of vulnerabilities in the banking sector remain. Reorganisation should improve

efficiency and resilience in the sector. Regulatory changes and the implementation of competition and internal market policies relating to the banking sector are expected to provide the right incentives for future performance and risk taking by the sector. These structural changes are particularly important from the internal market point of view since these restructuring processes can promote integration via cross-border mergers and acquisitions. This section first discusses how recovering profitability and fresh capital injections have supported banks' solvency ratios. It then goes on to analyse how the reorganisation process within the banking sector has been proceeding in a protracted way, including for the mergers and acquisitions activity. The section closes with a forward-looking part.

Strengthening capital ratios

Most major EU banks recorded strong profits in 2010, some of those with previously negative performance returning to profitability. Net interest income remained, as in 2009, the main driver behind improved performance, reflecting wider margins as short-term interest rates stayed at low levels, providing increased opportunities for maturity transformation⁵. Downward pressure on net interest income came from lower lending growth due to the weak real economy and reduced credit demand from the still highly leveraged household and non-financial corporate sectors. Non-interest revenues declined somewhat in many banks, reflecting difficult conditions on financial markets. However, profits were lifted by banks' provisioning of fewer loan losses than in 2009. This change is visible in almost all major banks for which data are available. The decline in estimated write-downs on residential mortgages and corporate loans has more than offset the increase in potential write-downs on consumer loans and commercial property loans. Also, potential write-downs on securities have been reduced.

Chart 1.3.8: Profitability of banks, measured by return on equity, EU (in %)



Source: ECB

The recovery in profitability was reflected in higher levels of return on shareholders' equity (average of 7.2% in the first half of 2010) and return on risk-weighted assets (average of 0.8% in the first half of 2010), compared to the extremely depressed levels of 2008 and, to a lesser degree, 2009 (see Chart 1.3.8). Nevertheless, both measures of profitability remain below the levels prevailing in the period up to 2007 (respectively 11.6% and 1.1% in 2007). Besides, profitability ratios seem to have declined somewhat as the year proceeded. This partly explains the negative performance of banks' share prices over 2010 (see Section 1.2), although the latter has also been reflecting concerns about the impact of sovereign credit risk

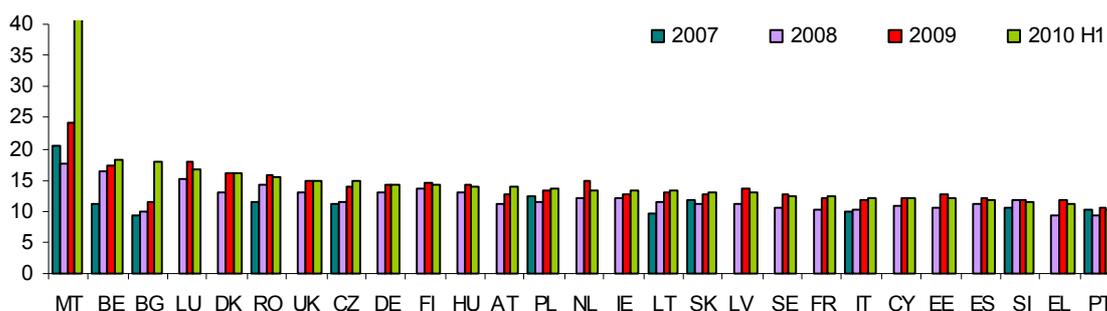
⁵ In certain countries where most loans carry a rate of interest that is either floating or fixed for a short period, lending margins came under pressure following the sharp decline in short-term market rates (see ECB's Financial Stability Review).

on banks' balance sheets and the large financing needs of euro area banks over the coming few years.

At the end of 2010, capital injected in the EU banking sector by public authorities amounted to a total of EUR 254.4 billion (EUR 164.9 billion in the euro area). The bulk of these injections occurred in the period 2008-2009, while capital injections in 2010 were limited to EUR 32.2 billion (EUR 24 billion in the euro area) and concentrated in a few Member States (DK, ES, EL, IE, NL, UK). Besides, banks in some other Member States paid back large amounts of public money previously injected (e.g. in BE, FR, HU, NL and LU) or benefited from private sector capital injections. In this context, the Commission took a series of measures related to State aid since the beginning of the crisis with the aim of preserving both financial stability and the functioning of the internal market (see Box 1.2).

Capital injections, retained earnings fuelled by recovering profitability and deleveraging efforts (reduction or stagnation of assets) all contributed to further improvement in banks' capital ratios, although at a much slower pace than in 2009 (Chart 1.3.9). An assessment based on Bloomberg data indicates that the overwhelming share of large EU banks have now a level of capital exceeding comfortably the new capital requirement rules, set by the Basel Committee on Banking Supervision in September 2010, i.e. a minimum Tier 1 capital ratio of 6% and a minimum total capital ratio of 8% from 2015 onwards (the quality of capital changes too). According to data from the ECB, large and complex banking groups in the euro area had a Tier 1 capital ratio of 10.40% on average in the first half of 2010, up 3 percentage points since 2007. The lowest Tier 1 ratio noted was still 8.2%. As regards the total capital ratio, the average was 13.90% in mid-2010, up 3.3 percentage points since 2007. The lowest ratio noted was 9.80%. Further, the stress test results presented by the Committee of European Bank Supervisors (CEBS) in July suggested that most banks should be able to withstand a severe deterioration in economic and financial-market conditions (see Box 2.2 in Chapter 2).

Chart 1.3.9: Capitalisation of banks, capital ratio, EU (in %)



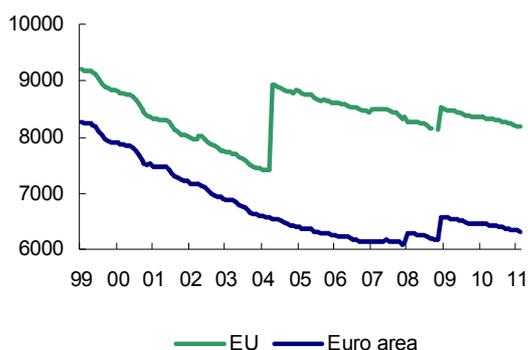
Source: ECB

Reorganisation, including changes in ownership and M&As

Typically, the resolution of banking crises involves a reorganisation of the sector, followed by a consolidation phase. This includes a reduction in capacity and the exit from the market of the weakest firms. Banking and financial services, however, are in many ways different to other economic sectors and this is also reflected by the recent evolution of these sectors during the crisis. Chart 1.3.10 shows that the number of credit institutions in the EU has been

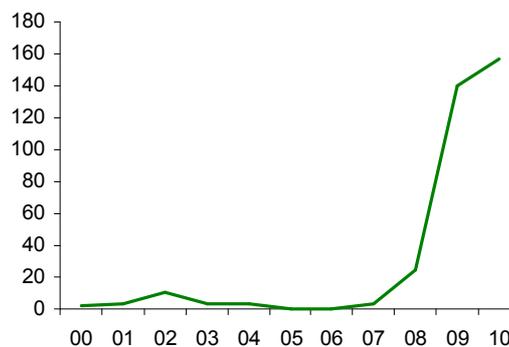
declining over the years, despite the fact that concentration in the sector was fairly high⁶; however, the total number of monetary financial institutions (MFIs) declined at a lower rate during the crisis than in the period before the crisis.

Chart 1.3.10: Number of MFIs in the EU and euro area⁷



Source: ECB

Chart 1.3.11: Number of failed institutions in the US



Source: FDIC

The relatively slow pace of reorganisation in the banking sector is confirmed when we look at the data on monthly entries into and exits from the EU markets. The number of exits and entries only changed significantly at the end of 2007 and early in 2008, but these balance each other out. During the most difficult weeks of the crisis for EU banks (late summer and autumn 2008) the matrix of entries and exits shows no significant difference with regard to the previous period. At least in terms of small banks, this has not been the case for the US banking market, where the number of failed banks increased significantly during the crisis (Chart 1.3.11).

The reasons behind this stability in the number of banks can be found in the systemic nature of the banking crisis, which required government intervention. When the crisis intensified following the collapse of Lehman Brothers, most Member States did not have an adequate crisis management mechanism for the resolution of credit institutions and, where some arrangements were in place, they were not consistently implemented. The sizeable government interventions which allowed the stabilisation of financial markets and the banking sector during 2008-2010 also partially replaced private M&A activity in the sector (see below). Nevertheless, the current high levels of public ownership in some banking sectors will need to be dealt with in the aftermath of the crisis.

The crisis has also impacted on the number of mergers and acquisitions (M&As) in the financial sector. The total number of M&As declined steadily since the beginning of the crisis in 2007. Public-sector driven operations were relatively less important in 2010 with respect to 2008 and 2009 but remained significant. Privately driven M&As — and in particular cross-border operations — declined significantly from 2007 to 2009, but cross border deals picked up in 2010 (Charts 1.3.12 and 1.3.13).

Among the different financial sectors, banking activity is a clear laggard in terms of M&As as compared to, for instance, insurance and asset management. Banking M&As collapsed in 2009 (excluding government activity) to the lowest level in seven years. Insurance deals remained at a comparable level to 2008 and were strongly up in 2010. Asset management deals also held up relatively well, although boosted by one very large transaction of close to

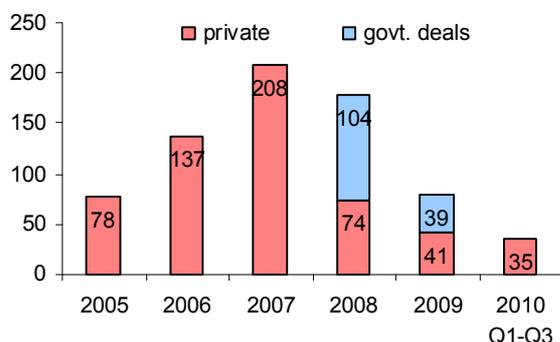
⁶ In most countries, the share of the top five credit institutions is over 50% and the Herfindahl index is over 0.1. Moreover, concentration in the banking sector increased somewhat in 2008 and 2009.

⁷ The two spikes in the EU trend are due to enlargement.

EUR 10 billion in 2009. When compared to other regions, M&A activity in Europe's financial services has lagged behind more dynamic regions, such as Asia-Pacific.

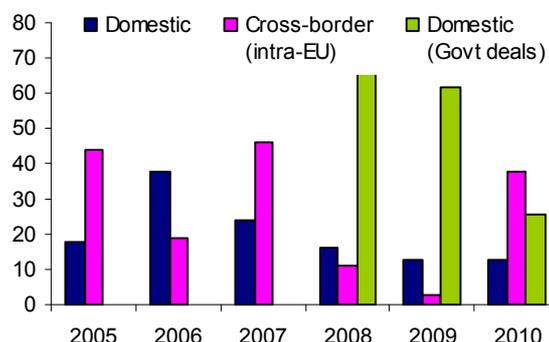
The re-assessment of risk, which became more country-specific and led to dysfunctional money and wholesale markets, together with the fact that most of the bank recapitalisation was accomplished via domestic capital injections and takeovers by governments, caused a decline in the overall volume of private sector M&A financial deals and especially of their cross-border segment. Since 2009, an improvement was noted in terms of cross-border presence, although the level of financial M&A activity remained subdued in general. Its level is below the levels of other economic sectors and below what a market-based restructuring of the banking sector would have implied. A very recent pick-up in banking M&A activity improves the short-term prospects for a private sector-led recovery. The current regulatory shake-up⁸ is further likely to reinforce **cross-border** M&A activity in the banking sector in Europe, subject to market uncertainty and access to finance.

Chart 1.3.12: European financial services M&As, volumes



Source: PWC

Chart 1.3.13: Breakdown by type of top 20 European financial services M&As: domestic vs. cross-border (in % of total, excl. extra-EU cross-border)

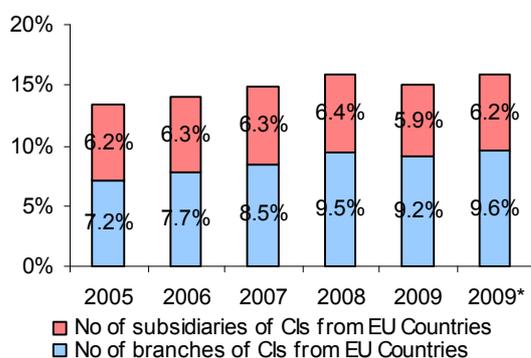


Source: PWC. Data refers to the top 20 European deals announced for each year.

Nevertheless, despite the slow pace of private sector market restructuring, the cross-border banking presence remained resilient to the effects of the crisis. Although there was a slight decline in the number of credit institutions operating on a cross-border basis, the percentage of cross-border institutions remained similar to the 2007 level (Chart 1.3.14). There is just a small reduction in the market share of these cross-border operators, which falls slightly below the 20% mark in 2008 and 2009 (Chart 1.3.15). Foreign banks continued to be prevalent in the EU-12 Member States, although their aggregate share dropped slightly from 72% to 69% in 2009. By contrast, in the more established Member States, over 70% of the banking sector was domestically owned. More than 60% of bank foreign assets were held by foreign subsidiaries, of which more than 90% came from the EU.

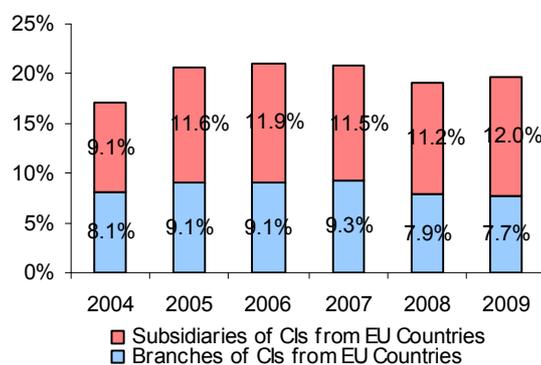
⁸ Including the possible introduction of a Single Rule Book.

Chart 1.3.14: **Number of EU cross-border institutions (as a share of total number of CIs)**



Source: ECB, *excluding the effect of a reclassification in Ireland

Chart 1.3.15: **Market share of credit institutions from other EU Member States**



Source: ECB

The above indicators of cross-border banking penetration are reassuring in the context of the single market and integration seems to have withstood the impact of the crisis in this respect, even though private sector M&A activity and especially its cross-border segment declined significantly with only some recent signs of revival.

Box 1.2: **Measures related to State aid taken by the European Commission**

Since the beginning of the crisis, the Commission's objectives in applying the competition rules have been twofold: (1) supporting financial stability by giving, as quickly as possible, legal certainty to rescue measures taken by Member States and (2) maintaining a level playing field in Europe and ensuring that national measures do not export problems to other Member States.

The Commission responded with specific and structural action based on Article 107(3)(b) of the Treaty on the Functioning of the European Union (TFEU) and adopted five communications⁹ indicating how State aid rules would be applied to government measures to support the financial sector in the crisis. They covered several issues relating to the application of State aid rules, the recapitalisation of financial institutions and limitations of distortions of competition, the treatment of impaired assets in the banking sector, the assessment of restructuring measures for financial institutions and the application, from 1 January 2011, of State aid rules to support measures in favour of banks. As companies began to experience difficulties in accessing credit due to the deleveraging process, the Commission introduced a Temporary Framework in January 2009 (originally applicable until the end of 2010), offering Member States additional possibilities for addressing the effects of the credit squeeze on the real economy.

As of 2010, discussions began on how to progressively reduce banks' reliance on government support. The Ecofin Council welcomed the Commission's intention to introduce specific pre-requisites regarding the renewed provision of guarantees after 30 June 2010, which included increased guarantee fees based on banks' creditworthiness. Those measures paved the way for bringing funding costs closer to market conditions and requiring a viability review for banks still heavily reliant on government guarantees. Reacting to those policy lines, on 30 April 2010 the Commission released a staff working paper on the application of State aid rules to government guarantee schemes covering bank debt to be issued after 30 June 2010¹⁰.

⁹ For specific information see the Commission's 'Report on Competition Policy 2009' at: http://ec.europa.eu/competition/publications/annual_report/index.html

¹⁰ The document can be consulted at: http://ec.europa.eu/competition/state_aid/studies_reports/phase_out_bank_guarantees.pdf

As regards the general trends in State aid granted to the financial sector, the Commission took approximately 200 decisions in the financial services sector based on Article 107(3)(b) TFEU in the period between 1 October 2008 and 1 October 2010. The financial crisis called for wide-ranging action, with the Commission authorising financial crisis measures in the field of State aid in 22 Member States, i.e. all Member States except Bulgaria, the Czech Republic, Estonia, Malta and Romania. The maximum volume of Commission-approved measures, including schemes and *ad hoc* interventions, amounts to EUR 4588.9 billion for the period between October 2008 and October 2010. For 2009 maximum approved aid accounted for 39% of EU-27 GDP for 2009. The large amounts of support approved under schemes can be explained by the fact that some Member States adopted blanket guarantee schemes which covered all their banks' debt. Member States relied mainly on guarantee measures. EUR 546.08 billion (4.5% of GDP) was approved¹¹ as recapitalisation measures, of which Member States actually used about EUR 141.5 billion in 2009. Application of State aid rules to support measures in favour of banks in the context of the financial crisis has been extended until 31 December 2011.¹²

Reorganisation going forward

Looking ahead, further industry-wide reorganisation is expected in the EU financial sector, in particular in banking, in compliance with EU State aid rules.

- Consolidation of the Spanish *Cajas* is expected to speed up, taking into account the new solvency requirements announced by the Spanish Government¹³. Their number is likely to come down significantly from around 45 to 17 in 2011 according to the Spanish Central Bank. Some of the German *Landesbanken* are being restructured and viability plans are being formulated. In Ireland, some delay in restructuring has occurred, also due to its high potential fiscal costs.
- The exit from government recapitalisation measures may spur a new wave of M&As. The trend set by some leading European banks in 2010 in terms of EU banking acquisitions looks promising, but extra-EU bidders may also come in strongly. For example, in both 2009 and 2010, US financial institutions have been very active in M&A activity in Europe, covering about 20% of the deals.
- The current regulatory shake-up is also likely to reinforce M&A activity and cross-border consolidation. In the same way that CRD IV is likely to put pressure on banks to improve their capitalisation and cost-effectiveness, Solvency II and UCITS IV¹⁴, AIFMD¹⁵ and RDR¹⁶ are driving a restructuring and rationalisation process in the insurance and asset management industries.
- The evolution of banking markets will depend on additional factors, such as the removal of exceptional measures, uncertainty regarding the macroeconomic situation and the regulatory environment and Member States' decisions regarding those banks where the

¹¹ Commission Staff Working Document 'Facts and figures on State aid in the Member States' SEC(2010)1462 from 1.12.2010, p. 47, can be found at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SEC:2010:1462:FIN:EN:PDF>

¹² Communication from the Commission on the application, from 1 January 2011, of State aid rules to support measures in favour of banks in the context of the financial crisis (2010/C 329/07). The document can be found: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2010:329:0007:0010:EN:PDF>

¹³ Information regarding the Spanish Plan can be found at:
<http://www.thespainseconomy.com/SiteCollectionDocuments/en-gb/Finacial%20Sector/11.01.24%20Spanish%20Finacial%20sector%20strengthening.pdf>
http://www.bde.es/webbde/es/secciones/prensa/reestructura_sane/ficheros/Notareformacajas20110217_IVI_en.pdf

¹⁴ Undertakings for Collective Investments in Transferable Securities (UCITS IV).

¹⁵ Alternative Investment Fund Managers Directive (AIFMD).

¹⁶ Retail Distribution Review (RDR).

public sector took a significant capital stake. Capitalisation requirements and the availability of capital to finance M&A operations will also be decisive factors influencing the timing and characteristics of an eventual reorganisation of the sector.

In these circumstances, the calls from the Commission for special aid measures in the financial sector to be removed aim to ensure that financial services markets evolve smoothly towards a more efficient, stable and properly regulated business environment with a level playing field.

1.3.3 Evolution and integration of financial intermediation

The evolution of financial intermediation and cross-border financial integration has been positively correlated both before and during the crisis. In the pre-crisis period, both advanced at high speed as the sustained expansion in credit in Europe was accompanied by large cross-border banking flows and underwent a parallel retrenchment afterwards. This illustrates another facet of the interlinkage between stability and the process of integration and the fact that the current policy measures addressing long-term stability are also favouring deeper and more sustainable financial integration (see Chapter 2). The moderate recovery and the ongoing albeit limited¹⁷ deleveraging of the private sector continued to weigh on bank lending to the private sector in 2010. On the one hand, bank lending to the private sector had weakened significantly during the crisis, with negative growth rates in 2009, followed by a slight recovery in 2010. This represents the correction of the credit boom prior to the crisis, which contributed to asset bubbles and misallocation of investments on a global level. On the other hand, the subsequent financial deleveraging process has hit both the domestic and cross-border segments of lending, with the latter most affected.

The retrenchment of cross-border inter-bank lending has been evident in the exposure of the core euro-area Member States to each other and to the periphery. In addition, the access of EU-12 Member States to international funding has been impaired by the crisis. Without the financial support offered jointly by the IMF and the EU, the flight to safety and capital outflows from some of these Member States would have probably been more marked.

General trends in financial intermediation

In 2010 private sector loan dynamics recovered, albeit at a gradual and differentiated pace across economic sectors (Chart 1.3.16). Actual bank lending to **households**, which was positive since mid-2009, remained modest over 2010, but increased slightly in the second half of the year, ending at an annual growth of 3.0% in December. This positive growth rate was entirely on account of lending for house purchase (+3.7%) as growth in consumer credit, accounting for 15% of household loans, remained negative over the entire period (-0.9% in December). The overall positive, although moderate, growth rate of loans to the household sector should be seen against a background of sluggish disposable income growth, impaired labour markets, falling house prices in some Member States, and still high levels of household indebtedness.

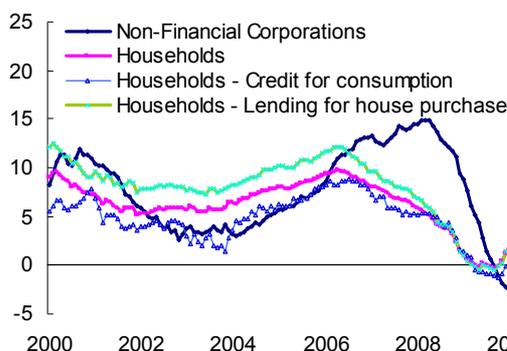
In the **non-financial corporate sector** the growth rate of bank loans was still negative (-0.2% at the end of the year) although the momentum had picked up since spring. Corporate

¹⁷ Historical evidence suggests that financial crises are most often followed by a protracted period of sizeable balance sheet adjustments by the most heavily indebted economic actors. In the years prior to the financial crisis, the household and the non-financial corporate sectors in some EU Member States had accumulated high volumes of debt. The actual deleveraging in both sectors has started only tentatively so far, compared to historical precedents. This may be partly explained by low interest rates and the related decline in debt servicing burden, as well as by government support to the financial sector in general and the provision of liquidity in particular.

credit growth usually recovers with a lag to economic activity, with companies first accessing internally generated funds to finance investments, before relying on bank loans. Net demand for loans turned positive in the third quarter, after more than two years of negative growth. Net demand for bank loans has been higher for small and medium-sized enterprises (SMEs) than for large companies since mid-2009, as large firms have substituted market financing for bank lending (see Box 1.3 on ‘Access to finance of small and medium-sized enterprises’). On the supply side, the net percentage of banks reporting a tightening of credit standards on loans to companies was still positive over most of 2010 but became neutral in the last quarter of the year, at least for large companies¹⁸. For SMEs, banks still held a slight tightening stance. The decline in net tightening of bank credit standards in 2010 compared to 2009 was primarily due to improved access to market financing, reduced financing cost and an improved industry or firm-specific outlook.

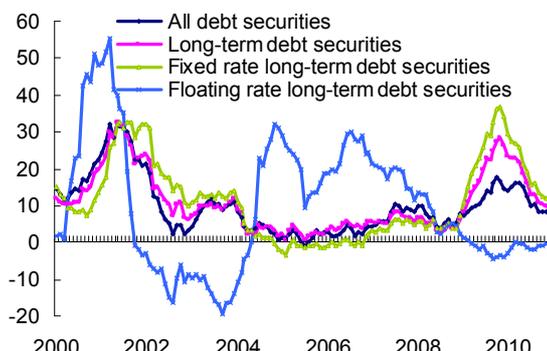
While the growth of bank loans to the non-financial corporate sector remained negative in 2010, large and investment-grade companies with strong balance sheets¹⁹ made ample use of alternative sources of financing, i.e. debt securities and equity issuance. In this regard, while external financing of non-financial corporations remains strongly bank-based in the EU, the trend of diversifying funding sources through greater issuance of market instruments continued in 2010. The issuance of debt securities remained buoyant in 2010 after a strong 2009, even if in recent months the growth rate has declined somewhat, as sovereign debt concerns have hampered the corporate bond markets (Chart 1.3.17).

Chart 1.3.16: **Bank lending to the private sector, euro area (annual growth, in %)**



Source: ECB

Chart 1.3.17: **Debt securities issued by non-financial corporations, euro area (annual growth, in %)**



Source: ECB

The proceeds from bond issuance were primarily used to refinance or restructure existing debt or bank loans rather than for new investment or expansion. Net new borrowing through bond issuance remained fairly limited. Debt issuance remained particularly strong in the long-term segment at fixed rates, at the expense of short-term debt securities issuance. Volatile equity markets prompted investors to purchase corporate bonds, reflected in the growth in the absolute number of unrated bond issues²⁰. In addition, the upward trend encompassed also the international component of corporate bond issuances, thus supporting the cross-border flow of capital in Europe. This development may signal structural changes

¹⁸ See ECB Euro area bank lending survey, January 2011.

¹⁹ Smaller and high-yield firms have, in contrast, continued to rely on bank borrowing. Moreover, with the Basel rules making bank lending to speculative grade companies more expensive, this segment faces a significant refinancing risk challenge in 2012-2014.

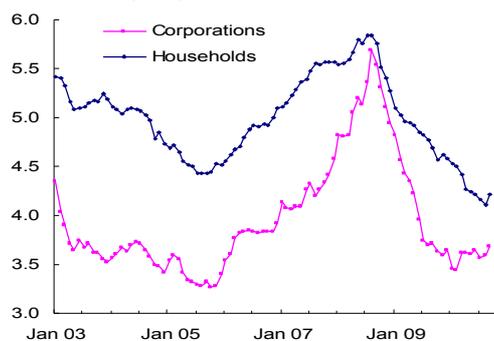
²⁰ Fitch reports that ‘[while] by volume of issuance, unrated issuers comprised less than 1% of issuance in each of the quarters of 2008 and the first half of 2009, in Q3/2009 this figure rose to 6%, peaking in Q4/2009 at 13%, before declining to a still significant 7% (or USD 7.5 billion) in Q1/2010’, ‘Europe’s Unrated Bond Issuers’, FitchRatings, EMEA Corporates Special Report, 30 July 2010.

in Europe's credit markets following the crisis. To the extent that the current trend continues, the EU corporate sector may rely more on capital markets in the future, ensuring a more optimal allocation of risk in credit intermediation²¹. Contrary to debt issuance, equity financing slowed down for quoted shares, reflecting the pick-up in the cost of equity financing.

Higher volumes of sovereign issuance can lead to crowding-out of private sector financing, although the extent of this development is difficult to assess. A coincidence of moderate growth of bank credit to the private sector and high rates of growth of credit to the public sector (including debt security holdings), which could be a sign of crowding-out, occurred on a widespread basis in the euro area. At the same time, banks continued to tighten their standards for lending to the private sector in 2010 while increasing their purchases of government securities. Banks may have perceived this favourable carry trade — low-cost deposits and central bank financing invested in higher yielding government securities — as a profitable and less risky way to recapitalise to the detriment of financing private investment.

As the recovery picks up together with the demand for lending in the private sector, this indirect crowding-out process may hamper growth.

Chart 1.3.18: **Non-financial corporations' and households' financing costs, euro area (in %)**



Source: ECB, Commission departmental calculations

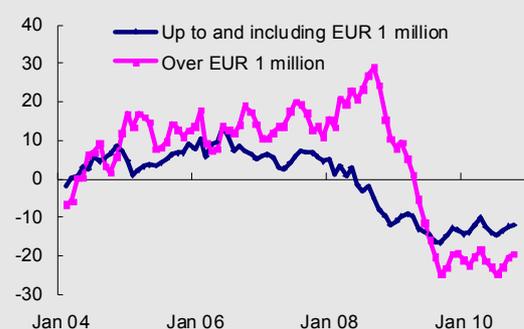
Box 1.3: Access to finance of small and medium-sized enterprises

Since the onset of the crisis, particular attention has been given to access to finance for non-financial corporations (NFCs) as the banks' capacity to provide credit to the economy was identified as a major transmission channel of the financial crisis to the real economy. The reduction of banks' lending activity, triggered by funding problems and the need to increase own capital, reduced the flow of credit to the corporate sector. This was particularly the case for SMEs, which generally rely heavily on bank loans and have little possibility to draw on alternative sources of external financing.

Based on data provided by the ECB, we analyse the evolution of new loans to NFCs by size category, i.e. below and above EUR 1 million. This division is assumed as being an acceptable proxy for loans to SMEs and large firms. The growth of smaller loans became negative in mid-2008, further decelerated in autumn 2008 and did not return to positive growth (Chart 1). Moreover, small loans had their lowest share in total new loans in August 2008 at 20%, down from 30% in 2004, and seem to be recovering only slowly. Currently, the share of small loans is back to 25%.

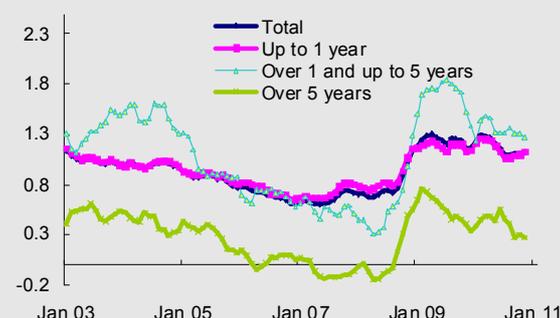
²¹ Notwithstanding the differences that may exist in terms of monitoring of outstanding loans between banks and bond holders.

Chart 1: **Change in low loans to NFCs, euro area, year-on-year, 3-months moving average**



Source: ECB

Chart 2: **Spread between loan rates on small (up to EUR 1 million) and large loans (above EUR 1 million), euro area**



Source: ECB

Chart 2 plots the spread between small and large loans for different loan maturities. Interest rates are generally higher for small loans than large ones. They increased sharply during the crisis, suggesting that SMEs had to pay an even higher price for credit, particularly for loans in the mid-range of maturities. The largest spreads, however, were observed for loans with short maturities at the onset of the crisis when banks faced liquidity constraints.

As regards the cost of financing, the private sector benefited in 2010 from quite favourable conditions. The nominal cost of external financing for non-financial corporations, as measured by the composite financing cost indicator (CFCI)²², bottomed out in 2010 at very low levels, slightly above the 2005 low (Chart 1.3.18). This is on account of the low cost of bank loans and market debt, supported by the ECB's accommodative monetary policy. The cost of equity financing, on the contrary, was higher than in 2005 due to the fall back in equity prices. The CFCI for households continued to decline in 2010 to levels below those recorded in 2005.

Cross-border financial intermediation

Flows

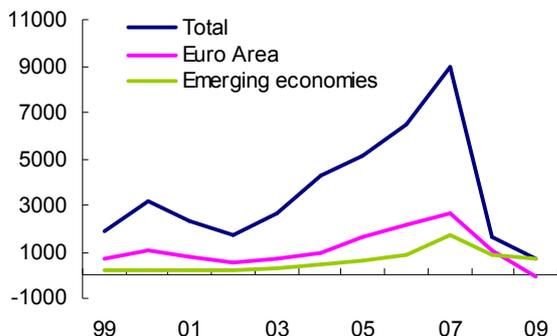
The share of cross-border financial flows, in the form of either lending, holdings of securities or banking sector exposures, declined relative to domestic flows since 2009. In essence, financial integration in Europe followed the international pattern of strongly growing cross-border capital flows during the boom years followed by subsequent sharp retrenchment since 2008 (Chart 1.3.19). For example, cross-border inter-bank loans between euro area banks increased from 22% of total inter-bank loans in 2000 to 34% in 2008, while holdings of securities issued in other euro area countries grew from a quarter to half of the total²³. Similar developments took place for short-term inter-bank and money market funding. During the crisis, there was a dramatic decline in international capital flows and the greatest contraction was in cross-border banking flows²⁴.

²² The CFCI is a composite measure of the nominal external financing costs for the euro area corporate sector and households constructed by Commission departments.

²³ See also OECD Economics Department Working Paper No 828 'Minimising Risks from Imbalances in European Banking'.

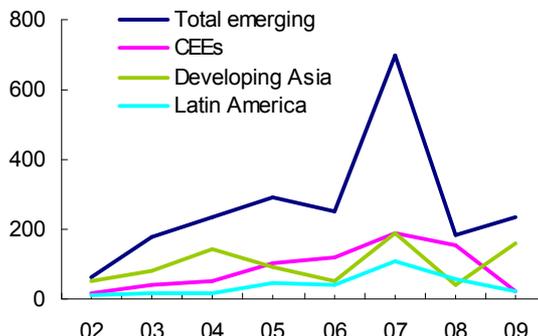
²⁴ See above paper quoting from Milles-Ferretti and Tille, 2010.

Chart 1.3.19: International capital flows (in USD billion)



Source: IMF, WEO database, October 2010 — The total figures include the US, Japan, the UK, the euro area and the emerging and developing economies.

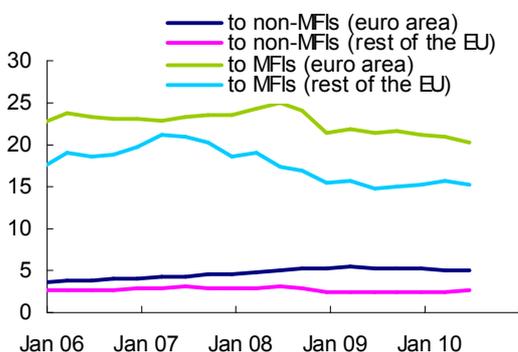
Chart 1.3.20: International capital inflows to emerging economies (in USD billion)



Source: IMF, World Economic Outlook database, October 2010

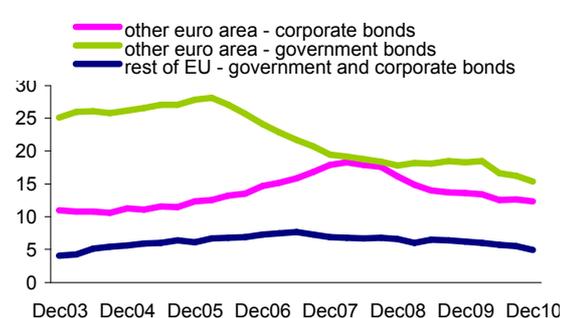
The difference between some of the EU-12 countries and other non-European emerging markets from Asia or Latin America is that international capital inflows rebounded strongly as of the second half of 2009 in the latter (Chart 1.3.20).

Chart 1.3.21: Euro area MFI cross-border loans (in % of total)



Source: ECB data

Chart 1.3.22: Share of MFI cross-border holdings of debt securities issued by EU non-MFIs (in %)



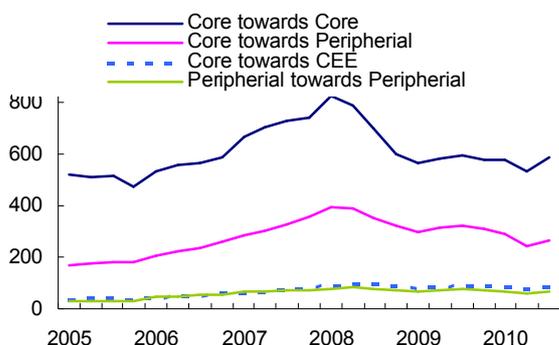
Source: ECB data

These diverging trends can be largely explained by the still depressed growth prospects and fiscal problems of sovereigns in some EU Member States.

The cross-border loans of monetary financial institutions (MFIs) to their euro area or EU counterparts declined somewhat in the aftermath of the crisis both in nominal terms and as a share of total loans, and have not recovered since (Chart 1.3.21). The same holds also for cross-border loans of MFIs to the euro area or EU non-MFIs, except that their share was already rather small even before the crisis. At the same time, the share of cross-border holdings of debt securities, government and corporate bonds, declined markedly, in particular for euro area holdings after the sovereign debt crisis from May 2010 (Chart 1.3.22).

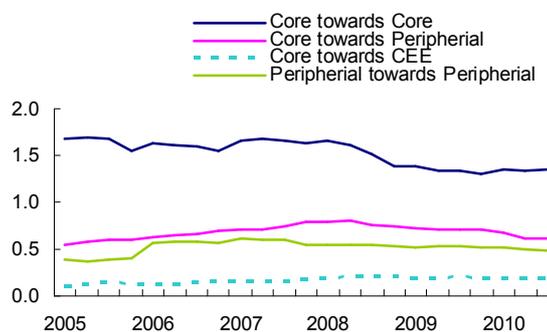
EU cross-border banking sector exposures were stable on annual basis. Nevertheless in the first part of the year it followed a pattern of gradual decline but it has reversed in the last quarter. This general development was even more marked in the case of exposure towards the periphery of the euro area (Charts 1.3.23 and 1.3.24).

Chart 1.3.23: Average exposures of EU subgroup banks towards EU subgroups, Member States (in USD billion)



Source: BIS, Commission departmental calculations

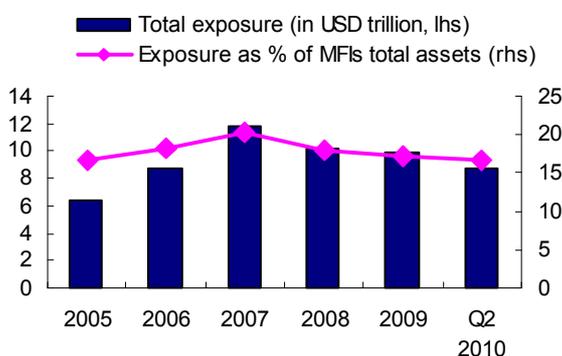
Chart 1.3.24: Average exposures of EU subgroup banks towards EU subgroups, Member States (in % of MFIs assets)



Source: BIS, ECB, Commission departmental calculations

According to BIS data, total cross-border exposures of EU banks towards EU Member States peaked in the year of the crisis to about USD 12 trillion and declined by around a quarter until June 2010 (Chart 1.3.25). Relative to banks' assets the decline was smaller and reached the levels of 2005 (on average about 17% of bank assets are in other EU Member States). Moreover, the BIS reported that the recent international recovery of growth in cross-border lending by banks came to a halt in the second quarter of 2010. The contraction in lending to banks in the euro area to the tune of about USD 100 bn was a main contributor. Bank cross-border lending continued to favour faster-growing emerging economies and shun mature economies in Europe. For economies which are more reliant on foreign lenders, such as Greece, Ireland, Portugal and Spain, lending fell most for the public sector and the banks, and less so for non-banks.

Chart 1.3.25: Total EU bank exposures to EU Member States (in USD trillion and % of MFI assets)



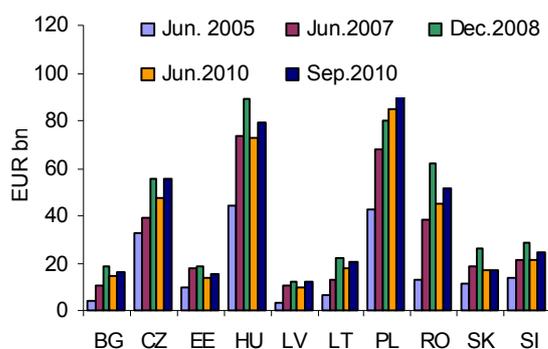
Source: BIS, ECB, Commission departmental calculations

Prior to the crisis, the integration of the EU-12 Member States into the EU financial system occurred at a very fast pace, via two main channels — the growth of EU cross-border claims and the expanding role of local branches or subsidiaries set up by the old Member States' banking groups. The process unfolded against the background of buoyant market sentiment triggered by EU accession and record-low monetary interest rates. In both segments, the crisis triggered a sharp reduction of exposures (Charts 1.3.26 and 1.3.27), affecting domestic credit dynamics and growth in the Central and Eastern European Member States²⁵. In contrast to other emerging market regions, many of those Member States continued to witness cross-border outflows during the first half of 2010, as some EU-15 Member State parent banks continued to shed exposures to the region but the situation seems to have been reverted in the third quarter of 2010. The real sector adjustments which are underway in many of these economies together with other financial and fiscal stability concerns seem to

²⁵ See also Chapter 1C in the IMF's Global Financial Stability Report, October 2010.

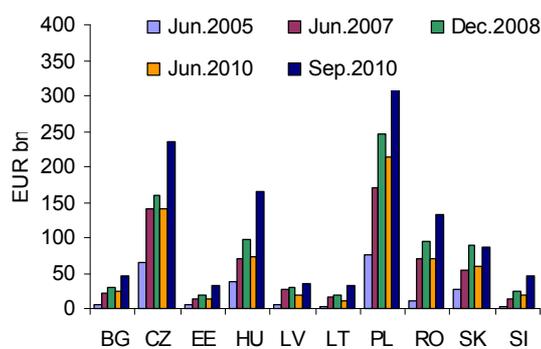
be at play. In other emerging economies²⁶ (see Chart 1.3.20), cross-border capital inflows entered positive territory as of the second half of 2009. Nevertheless, cross-border flows to Eastern Europe had been more stable than in peer emerging markets during the first stages of the crisis²⁷.

Chart 1.3.26: EU cross-border claims on CEEs²⁸ (in EUR billion)



Source: BIS

Chart 1.3.27: Local claims of domestic affiliates of foreign banks in CEEs (in EUR billion)



Source: BIS

Prices

In terms of prices, increased dispersion of national retail interest rates has been recorded since the beginning of the crisis. The pre-crisis convergence process and the subsequent divergence can be illustrated by three euro-area retail interest rates²⁹ — loans for consumption over one and up to five years maturity, lending for house purchase over five years and up to ten years (Chart 1.3.28) and loans to corporates over five years maturity, which exhibit a relatively similar pattern.

By calculating the coefficient of variation³⁰ (Chart 1.3.29) we note that two years after the start of the crisis the dispersion of national housing loan interest rates is four times higher than before the crisis and consumer rates began to diverge after October 2008. Corporate interest rates exhibit a similar behaviour. In October 2010 the dispersion for this corporate rate is still about three times higher than before the crisis. For consumer loans, the picture is more mixed. Even before the crisis the convergence of interest rates across national lines was quite slow and cross-country differences have increased again during the crisis. This may reflect the wide diversity of credit risks among euro area Member States for less collateralised business and mirrors also developments in money markets.

²⁶ As calculated by the IMF for Emerging Asia: China, Hong Kong SAR, India, Indonesia, Korea, Malaysia, Philippines, Singapore, Taiwan province of China, and Thailand and for Latin America: Brazil, Chile, Colombia, Mexico and Peru.

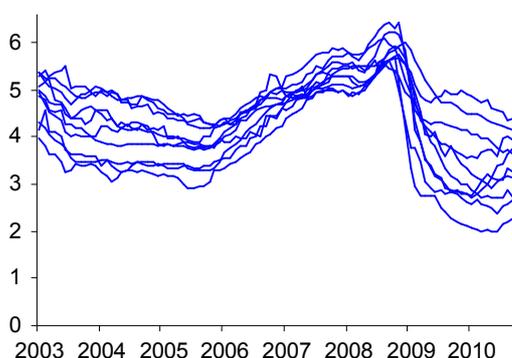
²⁷ See also S. Herrmann and D. Mihaljek, 'The determinants of cross-border bank flows to emerging markets: new empirical evidence on the spread of financial crises' and U. Vogel and A. Winkler, 'Cross-border flows and foreign banks in the global financial crisis — has Eastern Europe been different?' in DG ECFIN Occasional Papers, No 75, 2011.

²⁸ The share of EU banks in total foreign banks calculated according to their share in total foreign claims.

²⁹ In general, when assessing differences in retail interest rates it is important to take into account the remarkable product heterogeneity across EU that may partly explain some of the cross-country dispersion.

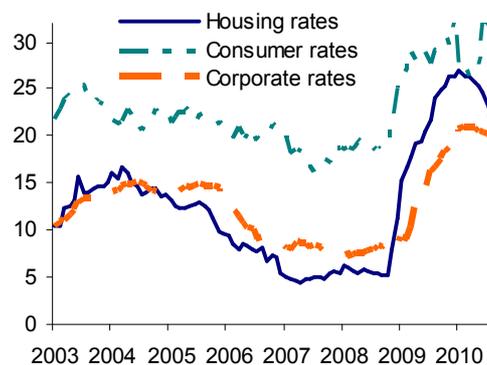
³⁰ The coefficient of variation is the ratio of the standard deviation to the mean and is expressed as a percentage. It describes the dispersion of a variable in a way that does not depend on the variable's measurement unit. The higher the coefficient of variation, the greater the dispersion in the variable. The coefficient of variation is useful because the standard deviation of data must always be understood in the context of the mean of the data.

Chart 1.3.28: Euro area households' house purchase interest rates, EU12 (in %)



Source: ECB

Chart 1.3.29: Coefficient of variation of euro area, EUR 12 (in %)



Source: ECB

1.4 DEVELOPMENTS IN THE INSURANCE SECTOR

On average, EU insurers have weathered the crisis relatively well compared with the EU banking industry³¹, mainly because of the specific characteristics of the insurance business³² and the business strategies adopted. However, the financial turmoil has had a sharp impact on several risks that insurers face and on market and credit risks in particular. Moreover, deep economic recession and uneven recovery remain huge challenges for the whole industry. Financial integration in the insurance retail sector has progressed further but remains limited in terms of cross-border activity. At the same time, access to a Single Market helps insurers diversify their risks while providing an important source of long-term savings to the real economy. It is worth noting that, as a reaction to the crisis, both insurance companies and pension funds are investing a larger share of their portfolios in less risky assets.

1.4.1 Market developments and stability

Although the crisis continued to affect the performance and profitability of the insurance sector in 2009 (Charts 1.4.1 and 1.4.2), the situation stabilised in 2010³³. According to EIOPA data, gross written premia declined in EU27 in 2009, although not as steeply as in 2008. Nevertheless, this general trend to some extent masks different performances for life and non-life markets. In contrast to 2009, the downturn in the real economy has severely affected many lines of non-life business, leading to more negative growth rates than in the case of life premia. The negative impact of the crisis appears to have been felt earlier in the life industry, which is more sensitive to financial variables, whereas non-life business has borne the brunt of the crisis a bit later on. In the first three quarters of 2010, underwriting and investment income stabilised after improvements in the previous two quarters. Losses declined after they had pushed combined ratios³⁴ above 100% for many insurers in the first quarter on account of losses caused by natural calamities. The return on equity also stabilised at a high level (around 10%). The reinsurance segment recorded a similar recovery of

³¹ Based on aggregated data from Bloomberg, as of January 2010, European insurers have reported write-downs and credit losses of USD 69 billion, compared with USD 189 billion in the banking sector.

³² To a large extent this reflects conservative investment strategies, regulatory requirements such as diversification rules and limitations on investments in alternative investment vehicles and high capitalisation levels.

³³ See also the ECB Financial Stability Review, December 2010.

³⁴ A combined ratio exceeding 100% indicates an underwriting loss for an insurer.

financial performance in the first nine months of 2010, achieving an average return on equity of about 12%.

Chart 1.4.1: Gross premia written (annual growth rate in %)

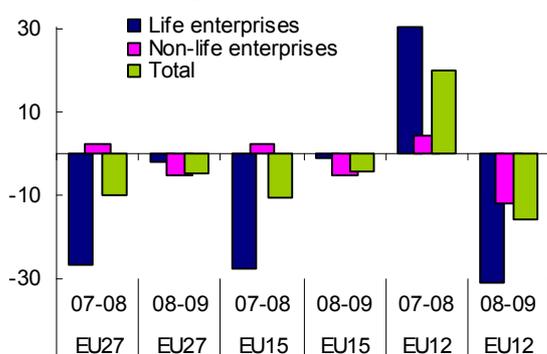
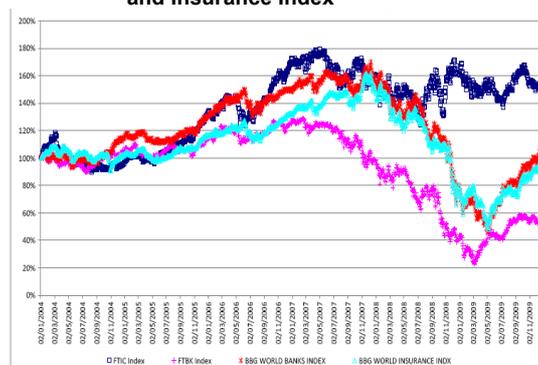
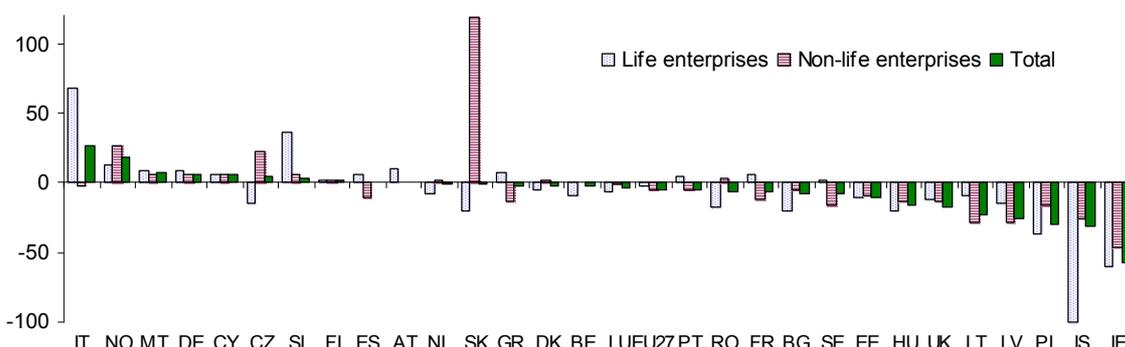


Chart 1.4.2: FTIC Index, FTBK Index, BBG World Banks and Insurance Index



An analysis of individual country performances in 2009 (Chart 1.4.3), clearly shows that premia fell in the majority of countries of the EEA/EU. Premia remained broadly stable in three countries (Austria, Finland and Spain), and a steady increase was reported in eight countries. Profitability has made a significant recovery from the sharp fall suffered in 2008, as shown by the increased return on equity, which has been higher for life insurers than for non-life insurers³⁵ and different from one Member State to another.

Chart 1.4.3: Insurance: gross written premia. 2008-2009 growth (in %)



Source: EIOPA and Commission departmental calculations

The sharp fall in *life* premia in most Central and Eastern European Member States is especially noticeable. Poland, Latvia and Lithuania are amongst the most affected. Most of the EU-15 Member States have stabilised life markets and in some (France, Germany, Spain, Greece, Austria and, on the whole, Italy), there is moderate growth due to the increasing popularity of ‘traditional’ life insurance products with guaranteed returns, as customers consider them to be safer products in the current financial environment.³⁶ The non-life segment presents a much bleaker demand performance, with lower premia in most EU countries and worldwide. The recession is reducing the demand for commercial insurance, while competition for clients has sharpened among insurers.

Looking ahead, the main challenges relate to increased market and credit risks in the context of a gradual and uneven recovery and to low interest rates. Low interest rates depress investment yields, which is a particular challenge for life insurers holding life products with a guaranteed income. In the past, faced with negative interest spreads in a prolonged

³⁵ EIOPA (2010b): Financial Stability Report 2010-Second half-yearly report, December 2010.

³⁶ EIOPA (2010): Spring Financial Stability Report 2010.

environment of low domestic interest rates, insurers have shifted a large part of their portfolios³⁷ into foreign-currency-denominated assets in a search for higher returns. Such a strategy is less efficient today in a general context of low interest rates in developed economies. Searching for yield in faster growing, emerging markets would generally translate into a higher investment risk.

Box 1.4: Turmoil in the Greek insurance sector

In 2009 Greece had to deal with an unprecedented course of events in the insurance market. On 21 September 2009 the licences of five insurance companies belonging to one of the largest group of companies (ASPIS GROUP as well as SKOURTIS Insurance) were permanently suspended. On 26 February another member of the ASPIS GROUP also had its licence permanently suspended. These companies were deprived of their licences because they were unable to meet their financial obligations. These measures were necessary because of a lack of government supervision over the years (the independent insurance supervisory authority, E.P.E.I.A., was established only two years ago), in particular of insurance companies' reserves. This collapse can also be attributed to the fact that the Greek market is driven by vehicle insurance, a less profitable field, and that life insurance has suffered a decline in the last two years. The consequences of this licence suspension are significant for the Greek economy and insurance market. Hundreds of employees have lost their jobs and most insured parties have lost the premia paid for policies held, given that only those parties holding life insurance policies were secured with a 'policy adoption' by another insurance company.

As the insurance sector has been more resilient than the banking sector since the beginning of the crisis, there is a general consensus that the former is less prone to systemic risk. Above all, because the insurance sector does not play the same kind of role as the banking sector does in the credit multiplication process, it is less vulnerable to sudden deleveraging pressures. This means that the liabilities side of its balance sheet is much more stable and the maturity mismatch between assets and liabilities is largely contained. This also makes the insurance sector an important provider of long-term savings in the economy. While systemic risk remains lower in the insurance sector than in the banking sector, it is not negligible and has grown in recent years, partly as a consequence of insurers' increasing links with banks and their focus on non-traditional insurance activities, including structured finance. The importance of the prevailing business model for determining the degree of insurance exposure to systemic risk is illustrated by comparing insurers' performance in the UK with 'continental' Europe, the former having fared better than the rest of Europe as a result of following a more independent path from banking. Fortunately, in most OECD countries³⁸ exposure to sub-prime mortgages and related 'toxic' assets does not appear to have been significant during the crisis. The greatest financial turmoil surrounding the insurance sector in Europe occurred in Greece, revealing serious weaknesses in risk management as well as in supervision (Box 1.4 above).

The main lesson to be learned from the crisis is the need to provide *incentives for sound risk and capital management* and strengthen *macroprudential surveillance*. The crisis has highlighted the importance of monitoring risks beyond the level of the individual firm and has brought to the fore the complexities inherent in capturing and making sense of risks that evolve rapidly in time and cut across geographical boundaries and financial sectors³⁹. In that regard, Solvency II encompasses regulatory and supervisory measures taken to prevent

³⁷ around 13 % of their total assets as of Q1 2010.

³⁸ OECD (2010): The Impact of the Financial Crisis on the Insurance Sector and Policy Responses, April 2010.

³⁹ For empirical findings on macro prudential surveillance practices among insurance supervisors see the survey conducted in the first half 2010 Macro prudential Surveillance in Insurance *IAIS Global Reinsurance Market Report (GRMR), mid-year edition 2010 (international Association of Insurance Supervisors)*.

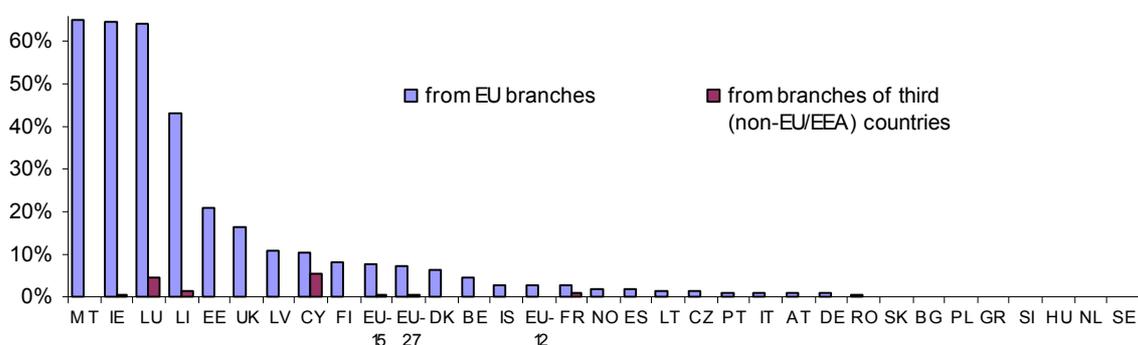
and/or mitigate the identified risks, and in so doing, it contributes to the soundness of the financial system. It introduces an *economic risk-based approach* that will reward good risk management and enhance policyholder protection (see Box 2.3 on ‘Risk management in Solvency II’ in Chapter 2).

Finally, the new framework will **strengthen the role of the group supervisor**, who will have specific responsibilities to be exercised in close cooperation with solo supervisors.

1.4.2 Market integration and the role of insurers as providers of long-term capital

The competitiveness of the European insurance industry in the global markets depends, on the one hand, on the stability and resilience of the sector and, on the other hand, on its ability to take advantage of business opportunities in the enlarged Single Market, as well as the pro-competitive boost driven by market integration. Thus, suppliers benefit from improved regional diversification of insured risks, the realisation of economies of scale and a wider area for investing assets. Consumers benefit from a larger choice among insurance companies and products and a higher degree of competition. At the same time, the real economy benefits from the provision of long-term savings by insurance companies and pension funds. In this regard, one of the objectives of Solvency II is to deepen the Single Market among insurers by introducing maximum harmonisation requirements and encouraging enhanced supervisory cooperation.

Chart 1.4.4: **Openness of national demand to foreign insurers: Share of total Gross Written Premia (GWP) subscribed in the country from other EU/EEA and non-EU/EEA insurers 2009 (in %)**



Source: EIOPA and Commission departmental calculations

Since, for the time being, price convergence is not a reliable gauge of market integration, given data constraints and the huge geographical heterogeneity among products and national regulations, ‘quantity’ indicators are used instead. The *market share* (premium based) of foreign (EU and non EU/EEA) branches *in domestic markets* (Chart 1.4.4) shows that while integration has in fact progressed it remains rather limited. The EU27 average market share of premia subscribed from other EU/EEA branches was 7% in 2009, up from 4% in 2008. There are significant differences among Member States, with only a few having an EU cross-border share higher than 10% (Malta, Ireland, Luxembourg, Lichtenstein, Estonia, the United Kingdom, Latvia and Cyprus). This increase suggests an upward trend in integration. In reality, however, most of the EU/EEA countries are well below this share, as the value most often reported lies between 1% and 2% of market penetration by foreign branches. The largest shares of EU/EEA branches are recorded in Malta, Luxembourg and Ireland. Among the big countries, only the UK stands out. Moreover, it is still extremely rare for consumers from EU countries to shop around for the best insurance contracts based on a pan-European comparison, as shown by the low volumes of direct cross-border business (blue column, reflecting transactions under the Free Provision of Services Directive — FPS).

Nevertheless, although integration is still weak in the case of retail insurance markets, the same does not hold for reinsurance and the market for industrial risks, where the degree of integration has undoubtedly been high since the nineties⁴⁰. Moreover, from the asset side, the industry is profiting increasingly from market integration, as access to external markets allows for risk diversification and the search for higher investment yields. Insurers are large institutional investors. They back future claims with large amounts of investments - normally much greater than annual premia. What is more, their investment horizon is generally long-term and quite stable over time. Insurance contracts are mostly long term and claims outflows are relatively predictable. Thus, together with pension funds, they are in a very strong position to provide long-term investments for financing the real economy. In Europe, there are some differences among countries in terms of the size of the combined assets of pension and life insurance funds (generally the most important long-term savings vehicles). They exceed 100% of GDP in countries like the United Kingdom and the Netherlands, but in the majority of countries they are usually below 30% of GDP⁴¹. Unlike PAYG pension systems, funded pension systems are able to mobilise sizeable amounts of long-term savings for the economy. While not advocating a specific pension scheme model, the European Commission has recently launched a debate⁴² on how to improve pension systems in Europe and, in particular, how to establish an internal market for funded occupational schemes and ensure the cross-border coordination of pension schemes in order to facilitate the free movement of workers. This should help Member States to meet the aging challenge and ensure an increased flow of long-term savings for productive investment in Europe.

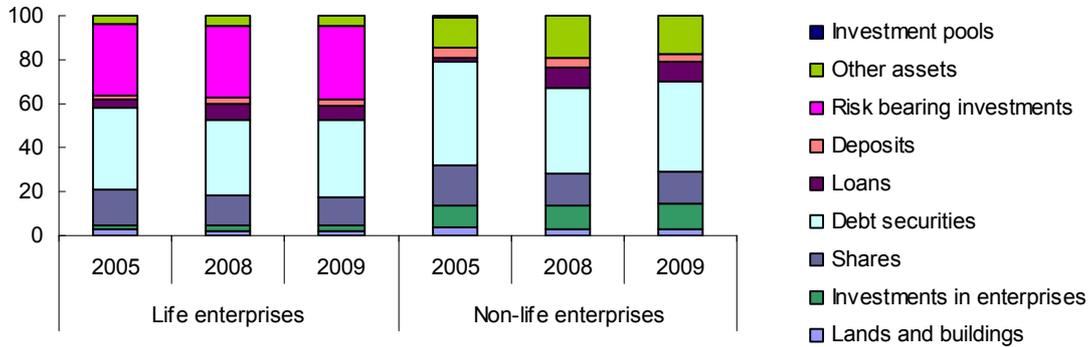
There has been a change in the allocation of assets by insurers and pension funds in reaction to the financial crisis. *A general trend towards portfolio de-risking* (Chart 1.4.5) is evident: a) fixed-income securities represent the most important investment allocations for EU insurers and their share in most portfolios has increased since the crisis; b) the share of variable-yield securities in the portfolio of life insurance investors has decreased, having been severely hit by the turmoil in the equity markets at the beginning of the crisis. Moreover, in order to compensate for long-term prospects of low interest and the subdued performance of more traditional investments such as bonds and shares, large EU insurers are searching for alternative higher-yield investment placements (eg. private equity, and infrastructure, such as renewable energy assets). Moreover, in life insurance, the share of investments on behalf of policyholders is clearly increasing, which could reflect a shift towards products where the investment risk is borne by policyholders, in parallel with the shift in the pension funds from defined-benefit (DB) towards defined-contribution (DC) systems.

⁴⁰ Beckmann, Eppendorfer, C. and Neimke, M. (2002) Financial integration within the European Union: Towards a single market for insurance, Ruhr-University Bochum, January 2002.

⁴¹ See the BME Consulting Study: 'The EU Market for Consumer Long-Term Retail Savings Vehicles', November 2007.

⁴² EC Green Paper — towards adequate, sustainable and safe European pension systems, July 2010.

Chart 1.4.5: EU/EEA insurers' asset allocation 2005/2009 (share of total assets in %)

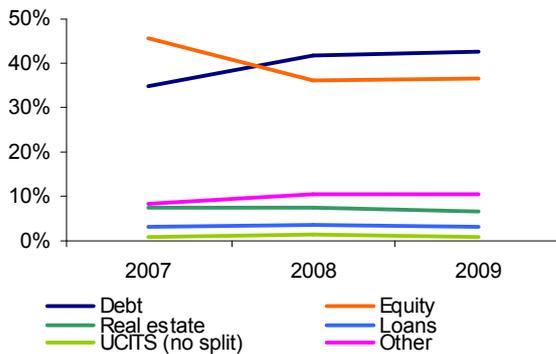


Source: EIOPA and Commission departmental calculations

It is interesting to note that there is a significant difference between EU-15 and EU-12 Member States in the way assets are allocated in insurance. The weight of debt and deposits is much bigger in the latter, reflecting a lesser degree of sophistication in these emerging markets. Finally, recent OECD data (April 2010) suggest that, although insurers in some countries are concentrating their investments on public sector bonds (Hungary and Greece for instance), in many other countries (France, Portugal and Spain) investments play a major role in financing the private sector via corporate bonds. Germany is the prime example, where private sector bonds account for 95% of total bonds in insurers' portfolios.

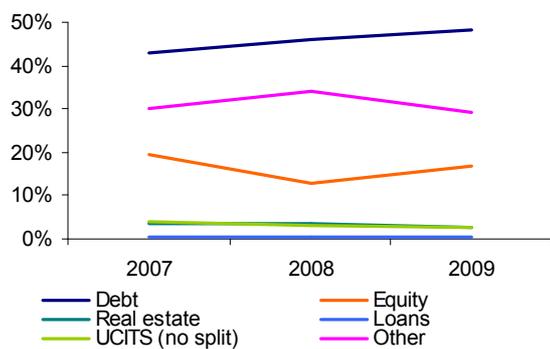
Whatever the starting point, the financial turmoil has led to a clear and symmetric trend involving an increase in the debt weight and a reduction in the equity share of both defined-benefit (DB) and defined-contribution (DC) pension fund investments (Charts 1.4.6 and 1.4.7, respectively). In just two years (2006-2008), the average equity share in total assets dropped from 22% to 13% in defined-contribution (DC) countries, although has slightly recovered in 2009 (16.7%). Most of them were Eastern Countries with less sophisticated financial markets. The share also dropped (from 49% to 36%) in the most equity-oriented ones (DB countries), and has stabilised in 2009. Investments in debt and fixed income assets, however, followed a sustained upward trend everywhere.

Chart 1.4.6: EU Pension funds asset allocation 2007-2009. D B countries (% share of total assets)



Source: EIOPA and Commission departmental calculations

Chart 1.4.7: EU Pension funds asset allocation 2007-2009. D C countries (% share of total assets)



Source: EIOPA and Commission departmental calculations

1.5 DEVELOPMENTS IN MARKET INFRASTRUCTURE

Developments in payment, clearing and settlement systems in 2009-2010 as well as policy measures at EU level demonstrate further progress towards more integrated financial markets in Europe, despite the fall-out of the crisis.

SEPA

The vision of a Single Euro Payments Area (SEPA) is geared towards the creation of an integrated market for cashless payments in euros throughout the European Union. Two crucial milestones⁴³ have already been reached on the way towards the realisation of SEPA through pan-European schemes. Actual migration from national legacy payment instruments to these core SEPA payment instruments is, however, lagging behind. It is mainly limited to cross-border transactions using the SEPA Credit Transfer. Migration rates for the SEPA Direct Debit are not yet available but are estimated to be off to an even slower start. In October 2010, less than 10% of all credit transfers in the euro area were executed using a pan-European payment instrument.

One way of overcoming the current inertia and unlocking the long-term economic potential of an integrated payments market would be to establish a cut-off date for SEPA migration. Legacy payment instruments would have to be phased out by that date and replaced by SEPA products. This view is shared by the European Parliament, Council and the Eurosystem. The Commission therefore made a proposal in December 2010⁴⁴ for a regulated migration cut-off date for SEPA credit transfers and direct debits.

Over-the-counter (OTC) derivatives

Financial derivatives facilitate trading but they can also cause market disruption, because of their complexity and the fact that they are often traded over-the-counter (OTC), i.e. not through a listing on an exchange. This means they are subject to fewer clearing and transparency requirements. According to estimates by the Bank for International Settlements, by 2007 the value of global OTC derivatives had reached between six and seven times the value of derivatives traded on an exchange⁴⁵. The European Commission estimates that between 10% and 30% of OTC derivatives are currently cleared centrally⁴⁶. In order to address the issue the European Commission put forward a proposal for a regulation⁴⁷ in 2010. It aims to bring more safety and transparency to the OTC derivatives market by requiring highly liquid OTC derivatives to be cleared through central counterparties (CCPs) and information on all OTC derivatives to be reported to Trade Repositories.

Integration of market infrastructure

The recent Oxera report commissioned by the European Commission⁴⁸ which analysed costs from 18 financial centres in Europe⁴⁹ concludes that markets are becoming more integrated.

⁴³ Namely the launch of the SEPA Credit Transfer on 28 January 2008 and the launch of the SEPA Direct Debit on 2 November 2009. The latter represents a true innovation at European level, as for the first time it enables direct debits to take place on a cross-border basis.

⁴⁴ COM(2010)775 Final 16th December 2010.

⁴⁵ Impact Assessment accompanying the Proposal for a Regulation of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories, COM(2010)484 final.

⁴⁶ Ibid.

⁴⁷ Proposal for a Regulation of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories COM(2010)484/5.

⁴⁸ Oxera (2009), Monitoring prices, costs and volumes of trading and post-trading services, http://ec.europa.eu/internal_market/financial-markets/docs/clearing/2009_07_ec_report_oxera_en.pdf.

For instance, the tables below show that the proportion of cross-border members of trading platforms and CCPs is relatively significant and is steadily increasing. In the case of CCPs, this reflects the entry of new pan-European CCPs since a large proportion of the members of these CCPs are located outside the domicile of the CCP's head office. Between 2006 and 2009 the cross-border proportion of members of trading platforms in Austria, Belgium, Denmark, France, Ireland, the Netherlands, Portugal and the UK rose by 13% to 31%, while Greece and Luxembourg saw their cross-border memberships approximately doubling, with increases of 80% and 115% respectively. The same proportion is much smaller for settlement services, i.e. for CSDs, but it is nevertheless also increasing.

Table 1.5: Trading platforms, CCPs and CSDs - % of cross-border members⁵⁰

	2006	2008	2009
Trading platforms			
By number of members	35%	39%	39%
CCPs			
By number of members	30%	32%	[59%] ⁵¹
By number of clearing transactions in equities	16%	20%	[37%] ⁵²
CSDs			
By number of members	2%	3%	3%
By value of securities held	12%	14%	15%

This rise in the proportion of cross-border members is consistent with the increase in the direct use of CCPs and CSDs reported by brokers; for instance 86% of brokers reported to use a CCP directly in 2009, compared to 71% in 2006.

However, cross-border post-trading costs (for custody, clearing and settlement) continue remain higher than domestic costs, partly reflecting the fragmented nature of existing channels for cross-border transactions in Europe, but also the relatively lower volumes of cross-border transactions. There are many ways to measure this difference, but to take an example, the cross-border settlement fees charged by custodians to brokers are on average around 4 times the domestic costs (based on 2009 data). The gap between cross-border and domestic costs appears to have widened since 2006.

1.6 OVERALL ASSESSMENT

Financial market concern about public debt sustainability in several Member States and the adverse impact of increased sovereign credit risk on the balance sheets of EU financial institutions have heightened macro-financial risks in the EU. However, these risks have become increasingly divergent across the Member States and among individual financial institutions. While the policy responses of the EU/euro area, the IMF and the ECB have had a positive impact on reducing the risk of contagion across the euro area and EU as a whole, it is a source of concern that those Member States most affected by the worsening fiscal situation also belong to the group suffering from subdued growth, ongoing housing price corrections and adverse labour market developments, thereby putting a particular stress on the resident banking sector.

⁴⁹ These are classified as *major* financial centres (France, Germany, Italy, Spain, Switzerland and the UK), *secondary* financial centres (Belgium, Luxembourg, the Netherlands, Norway, Poland and Sweden) and *other* financial centres (Austria, Czech Republic, Denmark, Greece, Ireland and Portugal).

⁵⁰ In all three tables cross-border members are members domiciled outside the domicile of the infrastructure provider.

⁵¹ The significant change between 2008 and 2009 can be attributed to the inclusion of two new CCPs in the 2009 survey.

⁵² As above.

While the solvency of the EU banking sector as a whole seems fairly robust, pockets of vulnerability remain. The most important pillar of the banking sector's recent recovery has been strong profitability, boosted by buoyant net interest income. However, the outlook for continued strong net interest earnings has become more uncertain. In addition, funding costs have risen due to increased sovereign credit risk. Moreover, while credit risk has declined in aggregate, it has become more country- and institution-specific, driven by divergent growth patterns of the local economy, different exposure to distressed sovereign debt holdings, non-performing residential and commercial real estate mortgages, etc. The risk is that these pockets of weakness create renewed episodes of stress.

Full implementation of fiscal consolidation programmes will be essential to contain sovereign bond spreads. Financial markets will closely monitor the implementation of the Member States' fiscal consolidation programmes. If Member States were to deviate significantly from their commitments under the excessive deficit procedures, confidence would again be eroded, causing renewed stress in sovereign bond markets and triggering several spill-over effects (including higher borrowing costs for private economic actors). While it is reasonable to believe that over the medium term risk premia for several Member States will remain high — in parallel with conditions in broader financial markets —, strict application of fiscal commitment should in turn bring down the borrowing costs of those governments most affected. The risk of a crowding out of private debt by sovereign debt issuance will increase when the recovery picks up. Generally speaking, both public and private debt issuance have proceeded without any major difficulties so far, but the fact that lending standards for the private sector are still tight suggests an indirect unfavourable impact on bank behaviour.

The real cost of (re)financing for economic actors is becoming increasingly divergent across Member States due to a reassessment of credit risk, and of sovereign debt in particular, as well as differing economic developments. Since the onset of the crisis, the cost of servicing record debt levels has fallen quite substantially across all economic sectors, helped by low interest rates. This has stabilised the quality of financial institutions' credit portfolios, due to fewer debt defaults. At present, the rise of risk premia in some Member States often coincides with highly indebted economic sectors (e.g. the Spanish corporate sector). While the debt-service burden associated with such high levels of debt has been contained until recently, higher risk premia will gradually increase the real burden on debtors when debt stock is rolled over. This may lead to another adverse feedback loop from real sectors to the still fragile financial sector, which again points to the need for a credible fiscal consolidation process and an acceleration of structural reforms in these economies.

While the overall macroeconomic environment improved in 2010, the economic outlook remains quite uncertain. An economic slowdown would pose a major risk for the sovereign bond market, as it would put more stress on governments' budgets and would again raise investors' concerns about the ability to repay/service debt. Investors are indeed likely to look increasingly not only at fiscal policy but also at economic growth prospects and progress in structural reform. Another risk could be posed by a more general rise in risk aversion in financial markets that could depress prices for most euro-area sovereign issuers and increase their borrowing costs. Rollover risk remains in sovereign bond markets. The amounts still to be raised from the market in 2011 are broadly the same as in 2010, taking into account the amounts already sold and, possibly, a high level of new borrowing needs. The situation will very much depend on economic prospects and the space left in investment portfolios.

Recent market developments show that cross-border financial market integration was not as deep as indicators led us to believe before the crisis, because credit expanded at an unsustainably high pace and also boosted cross-border flows. When the tide reversed, some cross-border financial institutions became vulnerable, exacerbating the decline. The crisis

also revealed several weaknesses in Europe's institutional, regulatory and supervisory frameworks, which are being addressed by an array of policy actions. At the same time, the financial institutions largely maintained their cross-border presence (see also the special feature) and the integration of market infrastructures progressed further. It should be possible to support further market integration at a more sustainable speed when stability returns, with the help of the EU's policy initiatives (see Chapter 2).

CHAPTER 2: POLICY DEVELOPMENTS

2.1 MAIN MESSAGES

The exceptional depth of the crisis justifies the far-reaching and radical reforms underway to set the right incentives and infrastructures for a resilient European financial system in the future. The objectives of EU policy in this area target markets and market actors to improve the performance of European financial markets. First, European financial institutions should become more efficient and stable, avoiding excessive risk taking and improving their governance. Policy actions are also aiming at enhancing consumer protection and inclusion thereby restoring consumer confidence, an indispensable element for the good functioning of stable financial markets. EU policy will make markets more efficient and transparent, with better infrastructures and preserving the liquidity and solvency levels that stability requires. New instruments will also be proposed to improve our capacity to manage financial crises.

Two major policy developments will provide the foundations for a new and more stable macroeconomic and financial environment:

- the introduction of the European Systemic Risk Board (ESRB), the European Financial Stabilisation Mechanism (EFSM) and the European Financial Stability Facility (EFSF). The latter were set up to provide up to EUR 500 bn to Member State governments⁵³ (see Box 2.1). They will all become useful instruments for macroprudential supervision and macroeconomic stabilisation in the Eurozone.
- The creation of the three European Supervisory Authorities (ESAs) will upgrade microprudential supervision capacity. **The introduction of this comprehensive European financial supervision architecture marks decisive progress in ensuring the financial sector will be more stable and better integrated in future.**

2.2 INTRODUCTION

Financial stability is of crucial importance to enable a market economy to function well. The impact of instability was demonstrated in the deterioration the EU economy experienced in 2009 in the wake of the financial crisis. In addition, as explained in the previous chapter, such instability harms the process of financial market integration. Reflecting this experience, EU policy makers have been pressed to put the financial sector on a sounder footing.

The financial crisis, which had its origin in the US subprime crisis and macroeconomic imbalances, revealed a number of failures in financial regulation and supervision at global level, but also within the EU. Reflecting this, the EU, working with G20 and Basel Committee on Banking Supervision (BCBS) members, agreed to re-engineer the EU regulatory and supervisory framework to ensure future financial stability and EU financial integration.

The Commission launched a programme of reforms which implements the decisions taken by the G20. The programme aims to tackle structural weaknesses in the financial sector, with four main objectives.

⁵³ In addition, the ECB initiated its Securities Markets Programme, to undertake outright purchases of euro area public and private debt — see http://www.ecb.int/ecb/legal/pdf/1_12420100520en00080009.pdf. Components of risk management process that are accomplished locally or at the headquarters (HQ) for different risks types as a function of banks' responses in percent.

- First, **better regulation of the financial sector**, to strengthen and extend the financial services rulebook and ensure that markets and institutions function appropriately.
- Secondly, **better supervision**, creating a consistent and effective supervisory and control structure for financial operators and markets in Europe.
- Thirdly, better **consumer and investor protection**, to restore confidence in the financial sector.
- Fourthly, the setting of appropriate mechanisms for **crisis management** to ensure that failing banks can be wound up in an orderly way without costs for taxpayers or disruptions for the financial system and the economy as a whole.

The reform agenda also seeks to foster and deepen the **single market for financial services**, reflecting the contribution that efficient, integrated financial markets can make to economic recovery in Europe (see Chapter 1).

This chapter considers:

- (i) the rationale for current EU regulatory and supervisory reform;
- (ii) the way in which EU work in 2010 contributed to it;
- (iii) how its effectiveness can be evaluated;
- (iv) next steps.

2.3 RATIONALE FOR EU INITIATIVES

During the 2007-2009 crisis, EU attention focused mainly on urgent issues and exceptional circumstances. A number of substantive measures at national, EU and international (notably G20) level, were undertaken to prevent the crisis spreading and to limit its extent and impact. Central banks channelled liquidity into the banking system in response to severe disruptions in the interbank market.

In addition, national authorities injected capital into banks, and guaranteed specified liabilities/assets of banks⁵⁴ facing temporary liquidity pressure, to prevent financial collapse on a massive scale⁵⁵. The Commission introduced crisis-specific state aid rules to limit distortions to competition in the Single Market to which such aid gave rise (see Box 1.2 in Chapter 1), while taking into account the exceptional threat to financial stability. These activities helped to avert a much worse crisis.

The interplay between problems in the banking sector in certain countries and pressures on their governments' public finances became a mounting source of concern in 2010, highlighting the urgent need to strengthen the EU financial system via better regulation and supervision.

The policy agenda thus sought to address the fundamental problems experienced in the crisis, as well as other potential systemic issues. These problems relate to:

⁵⁴ The bulk (76%) of approved support was in the form of State loans or guarantees to maintain interbank financing, with recapitalisation constituting 12% and impaired asset relief 9%. See Press Release <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/1635&format=HTML&aged=0&language=EN&guiLanguage=en>.

⁵⁵ Measures approved by the Commission's competition authorities were equivalent to some 39% of the EU GDP for 2009.

- Historically low levels of high-quality capital (and thus excessive leverage) and insufficient liquidity in key firms, notably banks, partly reflecting inadequate and pro-cyclical prudential requirements — which led to intense pressure on such firms when the value of their assets deteriorated.
- Weak corporate governance and risk management, together with an incentive structure for managers and creditors, distorted by implicit government support.
- Insufficient market transparency and inadequate disclosure of information to the authorities, including supervisors, which hindered management of the crisis.
- Supervisory shortcomings, including inadequate supervision of individual institutions, especially those operating in more than one Member State.
- Insufficient surveillance of the sector as a whole, on the erroneous assumption that effective regulation and supervision of individual financial institutions directly led to the stability of the whole system, together with insufficient attention to the unregulated financial sector.
- The general absence of national frameworks to facilitate the orderly wind-down of systemically important financial firms (especially banks), as well as the absence of the harmonised national frameworks necessary to deal smoothly with failing cross-border banks. During the crisis, governments responded to these gaps by using public money to shore up failing firms.

The EU approach to these problems was based on the need for global solutions, with a heavy focus on systemic risk and enhanced EU integration.

Global solutions

The EU has generally opted for a global approach to financial reform, reflecting the experience of events outside the EU contributing to an EU financial crisis. The crisis also demonstrated the interdependence of financial institutions and markets, and the need for uniformly robust, global regulation and supervision.

Moreover, global regulatory convergence can significantly reduce overall compliance costs, resulting in efficiency savings. The EU has therefore continued to champion internationally-agreed reforms (mostly at G20/FSB and international standard-setter level, but also in the European Commission's regulatory dialogues with third countries such as the US and China). This is especially true for areas such as capital requirements and remuneration, in which the EU's ability to achieve its objectives could be undermined if its approach is not taken up in other key jurisdictions. However, even in these areas, international agreements have had to be implemented so as to reflect EU specificities regarding the distribution of competences between EU and national authorities and the high level of financial integration already attained.

Systemic responses

The crisis proved that the prudential supervision of financial services requires not just provisions to ensure the individual soundness of financial institutions, but also macroprudential regulation and supervision to prevent systemic failures. The way in which the crisis developed in late 2009 and 2010 further demonstrated that sound, resilient financial markets are necessary for macroeconomic stability. Moreover, the morphing of the crisis into a sovereign debt crisis and the close link between sovereign and banking problems have shown the importance of ensuring integrated economic governance and sovereign crisis management arrangements in the euro area. Against this background, the EU authorities adopted a comprehensive approach to financial services supervision, in particular by creating

a new institutional mechanism to monitor and respond to the development of systemic risk — the European Systemic Risk Board.

Progress towards more integration

The crisis has tested Europe's commitment to progress towards more integration. The importance and scale of the challenge posed to European integration during this crisis were unprecedented. However, the EU's response to the crisis, based on wide-ranging reforms of both the regulatory framework for financial services and economic governance, are clear, definite steps towards stronger, closer EU integration. New regulation has been introduced in a manner which provides stronger coordination at EU level, to prevent damaging regulatory arbitrage. There is much more focus on applying the new regulation consistently, and including cross-border firms within its scope. An alternative to this integrated approach would have been to focus purely on strengthening national frameworks, leaving the roles of existing EU institutions unchanged.

Box 2.1: Policy measures to stabilise euro-area sovereign debt markets to end – 2010⁵⁶

In response to mounting tensions in euro-area sovereign debt markets in the spring of 2010, a series of policy measures were undertaken, including the following:

- **Financial assistance to Greece:** On 2 May 2010, the Euro area Member States agreed to provide stability support to Greece via bilateral loans for up to EUR 80 billion. The Euro-area financial assistance is part of a joint package with the IMF, totalling EUR 110 billion. This package fully covers government financing needs related to the deficit and maturing medium- and long-term securities until end-2011. Greece is expected to gradually return to markets for long-term funding in the course of 2012.
- **The ECB Securities Markets Programme:** On 10 May 2010, the European Central Bank (ECB) initiated the Securities Markets Programme, enabling it to conduct interventions in the euro area public and private debt securities markets so as to ensure depth and liquidity in market segments which were dysfunctional. In order to sterilise the impact of these interventions, specific operations are conducted to re-absorb the liquidity injected through the Securities Markets Programme. By 28 December 2010, the overall amount of euro-area government bonds purchased under the ECB's Securities Market Programme reached EUR 73.5 billion.
- **Establishment of the EFSM and EFSF:** On 8 May 2010, the ECOFIN Council decided to establish a European Financial Stabilisation Mechanism (EFSM), based on Art. 122.2 Treaty on the Functioning of the European Union (TFEU)⁵⁷. The activation of the EFSM or the EFSF is subject to strong conditionality, in the context of a joint EU/IMF macroeconomic adjustment programme. Loans provided via the EFSM and EFSF are on terms and conditions similar to those of IMF loans. The EFSM and the EFSF are rated AAA by the three major credit rating agencies, Fitch, Moody's and Standard & Poor's. Both the EFSM and EFSF are temporary facilities. The EFSM is subject to six-monthly reviews and EFSF lending will end by mid-2013. The EFSM is guaranteed by the EU budget, so its volumes depend on the margin available between the legal ceiling of 1.23% of EU GNI and the actual budget of the EU. EFSM volume is estimated to be about EUR 60 billion. In addition, an intergovernmental agreement of euro-area Member States supports the European Financial Stability Facility (EFSF). The EFSF is guaranteed on a pro rata basis by participating Member States and has a nominal funding capacity of up to EUR 440 billion.

⁵⁶ For more recent information, see eg March 2011 ECOFIN and European Council Conclusions.

⁵⁷ See EU Official Journal of 17 December 2007.

- **Following the request made by Ireland in November 2010**, the EFSM and EFSF were activated for the first time. The Eurogroup and the ECOFIN Council, in agreement with the IMF; decided to grant financial stability support to Ireland up to EUR 85 billion. The EU will provide up to EUR 45 billion, the IMF up to EUR 22.5 billion, and the Irish government up to EUR 17.5 billion. The EU contribution is provided by the EFSM and an ‘enlarged’ EFSF, including the UK, Denmark and Sweden, which voluntarily committed themselves to supporting the programme, though they are not members of the euro area. These countries will provide bilateral loans under the same conditions as those of euro area participants.
- The December European Council agreed on the text of the draft decision amending the Treaty on the Functioning of the European Union⁵⁸, in order to establish the future European Stability Mechanism (ESM). The March European Council adopted this Decision. The ESM will be a permanent mechanism and will come into existence in mid-2013. The ESM will complement the new framework of reinforced economic governance, intended to provide effective and rigorous economic surveillance that will focus on prevention and will substantially reduce the probability of a crisis arising in future. Private sector creditors may be involved in future ESM operations.

2.4 NEW INSTITUTIONAL FRAMEWORK

The crisis made apparent the mismatch between highly-integrated EU financial markets and predominantly national supervisory structures. Despite coordination by colleges of supervisors, national supervision did not always facilitate the effective supervision of cross-border financial institutions. Moreover, crisis management arrangements during the crisis, based on Memoranda of Understandings between central banks, treasuries and supervisors, proved to be inadequate in the face of the serious problems experienced in the 2007-2009 period.

A new structure for EU financial supervision (including surveillance) was agreed in 2010, following the adoption of the de Larosière report in November 2008, and the subsequent implementation of its blueprint from 2009. The new institutions proposed as part of it, namely the three European Supervisory Authorities (ESAs) and the European Systemic Risk Board (ESRB), were subsequently established at the start of 2011. The purpose of the new structure is to ensure effective surveillance of the EU financial sector, as well as appropriate supervision of its main components (notably institutions, infrastructures and markets). Partly reflecting this, **EU policy implementation progressed decisively in 2010 away from short-term crisis responses towards longer-term measures to prevent future, large-scale crises.**

2.4.1 Macro-prudential surveillance

The crisis showed that the health of individual financial institutions and infrastructures does not necessarily guarantee the health of the financial system as a whole. To secure financial stability, systemic risk needs to be identified, monitored, and dealt with through appropriate policy measures. The European Systemic Risk Board (ESRB) was established in 2011 to lead EU efforts to do so.

The ESRB is responsible for monitoring and assessing potential threats to the stability of the financial system. It can issue risk warnings when necessary, and can make recommendations for remedial action, whose implementation it will monitor. In fulfilling its role, it will face a number of challenges, eg how to monitor systemic risk generated in unregulated institutions

⁵⁸ See EU Official Journal of 17 December 2007.

and markets, how to measure the systemic importance of key institutions and infrastructures, how to prevent adverse interaction between the financial sector and macroeconomic policy developments, and what remedies to recommend if a dangerous build-up of systemic risk is detected.

2.4.2 A new framework for micro-prudential supervision

Better supervision and cooperation between supervisors will be a consequence of the changes to the European supervisory architecture mentioned above. The new **European Supervisory Authorities (ESAs)** will coordinate the work of national supervisors, ensuring agreement and coherent supervision through the use of decisions to national supervisors if necessary. The new authorities will be able to mediate and arbitrate in disagreements between national supervisors, and prevent them from implementing EU rules in an incorrect or inappropriate way. They will also facilitate the work of colleges of supervisors, a vital aspect of policy for cross-border groups.

In certain specific cases, where EU-level supervision is justified, the ESAs can be called on to exercise this function: for example, from 1 July 2011, the European Securities and Markets Authority (ESMA) will have exclusive supervisory powers over credit rating agencies and may also be granted supervisory power over trade repositories under the proposed Regulation on OTC derivative markets.

The ESAs will have a vital role to play in advising the Commission on implementing legislation, and in drafting technical standards, to harmonise many technical areas where rules currently diverge among Member States. This will contribute to the development of a Single European Rulebook for the financial sector. Moreover, the new rules will facilitate cooperation and coordination among national supervisory authorities, so as to have an efficient network structure in place across the EU. EU-wide bank stress tests (see Box 2.2) are one example of such cooperation.

The interplay between the macro- and micro-perspective will enable better supervision of individual firms, as well as taking better account of issues such as interconnectedness and systemic risks. To this end, good cooperation between the ESAs and the ESRB will be crucial; they will exchange information, and be represented on each other's decision-making bodies.

Box 2.2: EU-wide bank stress tests

The Committee of European Bank Supervisors (CEBS) published the outcome of stress tests covering credit and market risks for a sample of 91 banks in July 2010. The objective was to assess the resilience of the sector and identify possible capital shortfalls. The tests examined a benchmark scenario based on the Commission's forecast (i.e. the Autumn 2009 European Economic Forecast) and an adverse scenario simulating the impact of both a severe macroeconomic shock and a sovereign risk shock on banks' tier 1 capital ratios⁵⁹. The tests did not assume sovereign default, consistent with the recent establishment of the EFSF and EFSM to provide finance to Member State governments. However, all participating banks published their sovereign exposures. The results suggested that most banks would be able to withstand a severe deterioration in economic and financial market conditions. Thus, under the severe adverse macroeconomic and financial shocks scenario used in the test, 51 of the 91 banks would still maintain a tier 1 capital ratio of more than 8%, i.e. double the current regulatory

⁵⁹ The sovereign risk shock covered a common shift in the yield curve (at end-2011, the three-month rates were 125 basis points and the 10-year rates 75 basis points higher) supplemented with country-specific upward shocks to long-term government bond yields (overall amounting to 70 basis points at end-2011 for the euro area). See <http://stress-test.c-eps.org/documents/Summaryreport.pdf>.

requirement. 33 banks passed the stress test with a tier 1 ratio between 6 and 8% and 7 banks had a capital ratio below 6%.

The 2011 EU-wide stress tests, coordinated by the EBA, will be published in June. Reflecting the experience of the first tests, the 2011 tests will be based on a more severe macroeconomic stress scenario, enhanced quality control and more disclosure.

2.5 FINANCIAL INSTITUTIONS' STABILITY AND GOVERNANCE

2.5.1 Micro regulation of individual financial institutions

Banks

During 2010, important steps were taken to raise prudential requirements for key categories of financial firms. A number of these initiatives concerned banks, reflecting their function as the dominant providers of credit to the EU non-financial sector. Related to this, the initiatives reflected experience of the crisis, during which large systemically-important banks and groups of smaller banks, acting as a bloc, were important actors. First, amendments to the Capital Requirements Directive (CRD) were adopted to address gaps in existing regulation exposed by the crisis. CRD III will ensure that trading book exposures attract much higher capital buffers than before, consistent with the volatility they demonstrated in the crisis. The same will apply to re-securitisations, given their complexity and loss potential. The effect of these changes will be to increase the buffer that banks hold against losses on such exposures.

Second, new remuneration rules were agreed to incentivise managers to curb excessive, short-term risk-taking, thus helping to ensure the continued viability of their banks. The new rules build in constraints on the ratio of fixed to variable compensation, when it can be paid out, and the form it may take. They apply from 2011.

The Commission has contributed to the development of a new Basel agreement on bank regulation, and has made a commitment to introducing it in the EU as CRD IV. The proposed new rules seek to ensure that banks will be more resilient to adverse shocks. The rules state that:

- Banks are required to hold better-quality regulatory capital, in particular capital which can absorb losses while a bank remains a going concern.
- Banks should post much higher levels of regulatory capital, thus providing them with increased buffers against losses which might otherwise make them no longer viable.
- Banks' regulatory capital requirements should be made countercyclical, not procyclical, so that they increase in an upturn, dampening the boom and providing banks with increased buffers against losses in the ensuing downturn.
- Banks' leverage ratios should come down to sustainable, shock-resistant levels.
- Following an observation period, banks will have to meet new liquidity standards, in the form of a liquidity coverage ratio (to ensure that they have enough liquid assets to survive 30 days, should the wholesale funding market close) and a net stable funding ratio (which limits the mismatch between its assets and liabilities, and thus its associated liquidity risk).

It is envisaged that the component measures will be phased in between 2013 and 2019, taking account of their potential impact on economic activity.

The banking sector has already anticipated and reacted to the introduction of the package. Certain banks have begun to improve the quantity and quality of their capital (see Chapter 1).

Adjustments to bank business models and cross-border strategies are also under way in partial response to these reforms (see the special feature). Banks as well as the authorities have also sought to forecast the macroeconomic impact of these and other reforms, partly with a view to influencing their evolution.

Corporate governance in financial institutions

The Commission has also issued a Green Paper on corporate governance in the financial sector generally, with a view to proposing legislation in 2011 which will apply to banks as well as to other financial institutions. This reflects the failings revealed in the crisis in corporate governance at some financial institutions. The aim of this initiative is to set standards which address some of these failings. The consultation raised the issue of how to ensure more effective board oversight of management by e.g. limiting the number of mandates board members have, and improving the ‘fit and proper test’ to ensure there is more risk management expertise at board level.

Insurance companies

Insurance companies provide essential services to the wider economy and play an important part in the overall functioning of the financial system. However, the sector, which has so far weathered the crisis better than banks, faces challenges different to those in the banking sector. To enhance its regulation and supervision, the EU adopted Solvency II in 2009, and this will enter into force at the end of 2012 (see Box 2.3).

Box 2.3: Risk management in Solvency II

Solvency II will introduce economic risk-based solvency requirements across all EU Member States for the first time. These requirements will be more risk-sensitive and sophisticated than in the past, thus enabling better coverage of the real risks run by any particular insurer. The new regime will be a ‘total balance sheet’ type regime in which all the risks and their interactions are considered.

In particular, insurers will now be required to hold capital against market risk (i.e. fall in the value of insurers’ investments), credit risk (e.g. when third parties cannot repay their debts) and operational risk. The new regime emphasises that capital is not the only (or the best) mitigant against failures, and stresses the importance of risk identification, measurement and proactive management.

Under the ‘prudent person’ principle, insurers will have to diversify their investments appropriately and to limit these investments to risks they can truly understand and control.

Together with more focus on risks and their management, the new solvency system will also adopt a more forward-looking focus. Insurers will be required to think about future developments, such as new business plans or the possibility of catastrophic events, which might affect their financial soundness via the introduction of the so-called ‘Own Risk and Solvency Assessment’ (ORSA).

Hedge funds and private equity funds

The Directive on managers of alternative investment funds, including hedge funds (AIFM Directive) was approved in November 2010. It will require previously opaque market players, such as hedge funds, to provide comprehensive data which will help supervisors to detect potentially systemic risks wherever they arise in the financial system, and to respond as necessary, for example, by limiting the use of leverage.

2.5.2 Enforcing prudential and other regulatory requirements

To ensure that regulatory reform succeeds in its goal of ensuring a more resilient and efficient financial sector, it is vital that regulations are implemented properly and enforced consistently, on the basis of dissuasive and harmonised sanctions across the EU. National authorities responsible for the supervision of individual financial institutions must have the powers to exercise that supervision, and national legislation must provide for appropriate sanctions applicable to violations of EU rules. To this end, the Commission adopted a communication in 2010 to promote the convergence and effectiveness of sanctions that national authorities deploy to ensure compliance with EU financial services regulation⁶⁰. This followed the G20's acknowledgement of the need for appropriate sanctioning regimes. This would help minimise the scope for regulatory arbitrage and competitive distortions. The Commission envisages establishing minimum common standards that Member States should respect in designing and applying administrative sanctions. The Commission will also assess whether and in which areas the introduction of criminal sanctions and the establishment of minimum rules on the definition of criminal offences and sanctions may prove to be essential in order to ensure the effective implementation of EU financial services

The new supervisory framework (see Section 2.4) and work on enhancing national supervisors' powers as part of the Commission's crisis management initiative (see below) will also strengthen the enforcement of EU financial services regulation and compliance with it.

2.6 CRISIS MANAGEMENT

2.6.1 EU framework for bank recovery and resolution

At the end of 2010, the Commission launched a consultation on the establishment of a crisis management framework in the EU, with a view to a legislative proposal in 2011. The aim is to enlarge the toolkit to enable the authorities to deal with financial institutions in difficulty. This toolkit is intended among other things to require the preparation of recovery and resolution plans; grant supervisors expanded early intervention powers, including the power to replace a bank's Board; and grant resolution authorities the powers to effect a failing bank's sale and transfer its core business to a bridge bank. The Commission is also considering, as a possible further tool for resolution authorities, the power to write down the debt of a failing bank.

2.6.2 Deposit guarantee schemes (DGS)

The crisis demonstrated the need for effective, comprehensive and adequately financed DGS to prevent bank runs, thus contributing to consumer protection and financial stability. Events in September and October 2008 made apparent the need for higher levels of harmonisation in the structure, conditions and implementation of DGS. Guarantee schemes are intended to guarantee that depositors can recover their money deposits. Urgent measures⁶¹ were therefore introduced in October 2008, and included measures to harmonise and raise the level of guaranteed deposits and to ensure speedier reimbursement.

⁶⁰ Text of the 'Strengthening sanctions for violations of EU financial services rules: the way forward' communication can be found:
<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/1678&format=HTML&aged=0&language=EN&guiLanguage=en>

⁶¹ Directive 2009/14/EC amending Directive 94/19/EC on deposit-guarantee schemes as regards the coverage level and the payout delay.

In 2010, the Commission proposed amendments to the existing EU regime, to consolidate the urgent measures adopted in 2008. These amendments aim to raise the maximum cover to EUR 100 000, without any co-financing, so that deposit holders are guaranteed the entirety of their deposits to this level. In addition, they seek to reduce the maximum pay-out period to seven working days, and to strengthen the financing of national schemes so as to ensure that there are sufficient funds to meet the guarantee. The changes would mean that around 95% of eligible bank accounts would be covered, 7% more than before the crisis.

As well as reducing the risk of bank runs, the proposal would also enhance the Single Market by allowing savers to choose the best savings product in any EU country without worrying about differences in protection. Equally, it would enable banks to offer competitive products throughout the EU without being hampered by differences between national schemes and it would avoid distortions of competition between banks in different Member States.

Investor compensation schemes protect retail investors and help to underpin investor confidence in investment firms. A proposal to amend the existing Investor Compensation Schemes Directive was adopted in July 2010, to strengthen the current EU framework and to address any competitive disadvantage arising from the increased minimum coverage of the DGS Directive.

2.7 EFFICIENCY AND MARKET INTEGRITY

2.7.1 Markets

Orderly, efficient financial markets facilitate financial stability and economic growth. However, market failures — relating to asymmetric information, collective action problems (e.g. in respect of the publication of consolidated equity price data) etc — mean that official intervention, for instance, to enhance price transparency, is required to enable markets to realise their full potential. Reflecting this, a number of initiatives are being developed to promote the efficiency, stability, integrity and transparency of financial markets. These will remove loopholes in existing legislation and adapt it to rapid innovation on markets.

Short selling

At the height of the financial crisis in September 2008, several Member States and third countries such as the US and Japan adopted emergency measures to restrict or ban short selling in some or all securities. They acted due to fears that at a time of considerable financial instability, short selling could aggravate the downward spiral in share prices, notably in financial institutions, in a way which could ultimately threaten their viability and create systemic risks. In March 2010, Germany, France and Greece expressed concerns about the possible role played by derivative transactions, notably credit default swaps (CDS), in relation to prices for Greek sovereign bonds. Member States adopted a range of different measures in response, in the absence of a common regulatory framework for dealing with short selling issues. The Commission then presented a proposal for a Regulation on short selling and CDS in September 2010, which included, among other measures:

- Measures to increase transparency to regulators and the market about short selling positions in equities and sovereign bonds, including those obtained through the use of derivatives.
- Measures to reduce settlement risks from uncovered or naked short selling.
- Powers for competent authorities to temporarily restrict or ban short selling and the use of credit default swaps in emergency situations (subject to coordination by

ESMA) and powers for ESMA in exceptional situations to restrict short selling and the use of credit default swaps.

2.7.2 Infrastructures

Robust financial market infrastructures (including CCPs) have a key role to play in ensuring market efficiency, as well as financial stability, and have accordingly also been a focus of official policy.

Central counterparties (CCPs)

The resilience of individual financial institutions depends not only on their own resources, including capital and liquidity, but also on the resilience of their counterparties, as well as financial infrastructures such as CCPs that they rely on in undertaking their business. CCPs provide a vital function in reducing the aggregate credit risk of market participants by interposing themselves between buyers and sellers and netting off transactions. Their role is set to expand to the OTC derivatives market (see below).

As such, their failure could have damaging knock-on effects on the markets as a whole. It is therefore vital that they are robust and subject to proper oversight. The proposed European Market Infrastructure Regulation (EMIR) includes provisions to this end, eg regarding the funds that they may draw on in the event of the failure of a clearing member.

Dealing with the interconnectedness of financial market participants

The interconnections between individual financial institutions meant that the failure of some institutions had a damaging impact on a large number of other institutions during the crisis. Given that individual failures will continue to occur notwithstanding higher regulatory standards — indeed, they should be permitted to occur if market discipline is to work effectively — it is necessary to minimise this wider impact. During the crisis, it was apparent that the failure of a participant in the OTC derivatives markets could have a major impact on other systemically important participants, on account of the potential cost of replacing their outstanding contracts, as well as possible losses on the outstanding contracts themselves. EMIR therefore mandates the central clearing of eligible OTC derivatives, and sets out conditions intended to minimise the systemic damage resulting from the failure of individual clearing members. In addition, the supervisors' ability to detect the accumulation of excessive risk will be enhanced by the proposed requirement for all OTC derivatives to be registered in trade repositories, with access for supervisors.

Credit rating agencies

An important gap in regulation has been plugged through the Regulation on credit rating agencies (CRAs), which introduces strict authorisation requirements and supervision. Rating agencies underestimated the credit risk of structured credit products and failed to reflect the worsening of market conditions early enough in their ratings, thereby sharing much responsibility for the crisis. The Regulation already in force might not be enough to overcome all risks related to the functioning of the rating business. That is why issues such as the 'issuer-pays' model, the overreliance on ratings, lack of competition in the sector and the specificities of sovereign debt ratings are being further explored.

2.8 CONSUMER PROTECTION

Much of the drive to reform the current regulatory and supervisory framework has come from the desire to prevent and minimise future financial crises. It has tended to focus on

banks, especially large banks and the wholesale markets, rather than retail consumers of financial services. Key elements of the reform package, including those regarding remuneration policy and deposit protection and investor compensation arrangements, will also benefit retail consumers, including investors. This is important, since consumer confidence in the financial sector and the single market is essential for an efficient and robust financial sector. A number of additional measures⁶² targeted at consumers have also been developed, to ensure their needs are better met.

Credit relating to residential property

A Directive on credit agreements relating to residential property was adopted at the end of March 2011 to create a single market for mortgage credit with a high level of consumer protection and to promote financial stability by ensuring that creditors, intermediaries and borrowers act in a responsible manner to prevent overindebtedness, defaults and foreclosures. The Directive regulates two main aspects. First, it introduces requirements for the responsible conduct of business in relation to advertising and marketing; pre-contractual information; creditworthiness assessments, and early repayment. Second, it establishes a legal framework to ensure that all actors involved in the origination and distribution of mortgage credit are appropriately regulated (e.g. credit intermediaries and non-banks) and introduces a passport for credit intermediaries. These requirements will help prevent consumers taking on unsustainable mortgages under pressure from sellers and boost consumer confidence by ensuring that consumers take out products that meet their needs.

Single European Payments Area (SEPA)

The Commission has just proposed a Regulation setting an end-date for the completion of the Single Euro Payments Area (SEPA) for direct debits and credit transfers. Once this Regulation is adopted by the Council and Parliament, there will be a clear date from which payments all over the Euro zone will be as easy and quick as domestic payments.

2.9 EVALUATING THE IMPACT OF REGULATORY AND SUPERVISORY REFORM

EU policy proposals are evidence-based. Impact assessments — in the form of published ex ante reviews of the costs and benefits of related proposals — play a key role here.

The impact of a package of separate measures may not equate to that of the sum of their individual impacts. This is a difficult exercise, as actual outcomes may reflect a range of causal factors, among them regulatory/supervisory reform (including the strategic response of market participants institutions to new regulations), other policy developments (eg on tax), technological change, etc.

There is already evidence of market participants adapting early to future regulatory and supervisory change. For example, certain banks issued stock shortly after the agreement reached on Basel III, to comply with the increased capital requirements from Basel III before the regulatory deadline. Moreover, some are adapting their business models and strategies, partly in reflection of the new regulatory and supervisory framework (see the special feature). Reflecting this, the reforms being introduced are helping to change the structure of the financial sector, in a way that should be conducive to financial stability and sustainable economic growth.

⁶² See Chapter 2 on the development of the Single European Payments Area (SEPA) for euro cashless payments in the EU.

To evaluate the overall impact of policy, it is vital to consider in advance the overall goals. Key components of success would include:

- Continued financial stability, such that overall economic performance is not impaired by problems generated in the financial sector, and potentially systemic crises are averted without the use of public funds.
- The disappearance of the implicit public subsidy granted to systemically important financial institutions⁶³ that gives them a funding advantage over their rivals and may lead to them taking on excessive risks.
- The increased reliance of smaller corporates on capital markets for finance, and their commensurately reduced reliance on banks (see Chapter 1). At present in the EU, these markets play a much smaller intermediation role than banks do, by contrast to e.g. the US.
- Reduced leverage by the financial sector and less volatile credit growth.
- Evidence that financial innovations serve to increase overall social welfare.
- The international competitiveness of EU financial institutions and markets.

2.10 NEXT STEPS

The Commission already indicated its intention to secure the adoption of most of its remaining proposals for regulatory and supervisory reform by the summer of 2011, and wants to ensure that reforms are in force by end-2012. However, the assessment of the crisis continues to yield new insights, some of which may require future policy action. In addition, it will be vital to monitor the evolution of institutions, infrastructures and markets closely, and to respond where necessary.

There are already a number of policy issues on the EU's future policy agenda. These include:

- The measurement of systemic importance across the whole of the financial sector, and ways of dealing with the problems raised by systemically important financial institutions, infrastructures and markets.
- The specification of practical macro prudential tools.
- The stress testing of key parts of the sector, including individual institutions, to enhance transparency regarding resilience in the face of possible shocks.
- More generally, achieving the right balance between regulation on the one hand and market discipline on the other.

European solutions will not be successful in the absence of global coordination. This is why international coordination, in the G20, the FSB and elsewhere, must continue to be pursued vigorously. Leading financial jurisdictions worldwide must introduce compatible and coherent reforms and they must converge not diverge, for example in the area of accounting rules. Without close coordination, the reform process may take different paths in different major jurisdictions, and this could undermine efforts to avoid or mitigate future financial stresses. All G20 members must implement their commitments rapidly, as the EU is doing. Ensuring this will be a priority for the Commission.

The overall objective of these reforms is to put in place the conditions to ensure that the financial sector fulfils its important function of supporting long-term job creation and the real

⁶³ Proxied using the difference between the ratings provided on the basis of no government support and those assuming what actual government support is likely to be. See <http://www.bankofengland.co.uk/publications/fsr/2010/fsrfull1012.pdf>.

economy in the EU. But this is not an open-ended regulatory agenda and should be concluded by 2013. Once this is achieved, it will be important to take stock of what has been accomplished, including the impact on the real economy.

SPECIAL FEATURE: BUSINESS MODELS, STABILITY AND INTEGRATION IN THE EUROPEAN BANKING SECTOR

3.1 MAIN MESSAGES

The findings of this chapter are based on the replies by eight large pan-European banks to a questionnaire on issues related to their funding functions and risk management. The crisis has challenged different arrangements and models used by EU cross-border banks and triggered internal restructuring.

The various newly adjusted forms of funding, liquidity and risk management seem to be independent of the legal form selected for entry (i.e. branch or subsidiary). In addition, expansion typically took different legal forms at different times in the last two decades. Subsidiaries were prevalent in the 1980s and late 2000s, while branches were more common in the late 1990s and early 2000s. The establishment of the EU passport at the beginning of the 1990s, which facilitated a branch structure, might have affected the legal form only in the beginning.

Respondents which funded themselves on a coordinated but decentralised basis in the crisis found that their funding was more stable than those which funded themselves centrally. Partly reflecting this, all respondents sought to increase their dependence on local funding, especially retail deposits and covered bonds. However, some noted that intra-group flows remain an important channel for funding their affiliates. Respondents also report that integrated risk management systems proved extremely beneficial during the crisis. This was true whether the banks funded themselves on a centralised basis or required their national affiliates to do so locally.

In practice a combination of decentralised funding and integrated risk management contributed substantially to resilience during the systemic crises. However, centralised funding can in principle play an important stabilising role when a crisis is confined to one Member State or region. This suggests that stability is best ensured by an array of institutions with diverse funding models.

3.2 INTRODUCTION

The complexities of financial integration are often underestimated. This is particularly the case with banking integration. In a simplistic view of integration in banking, the stylised assumption has been that segmented markets tend to involve local funding of the assets held by a cross-border EU bank within each individual subsidiary in different Member States also when it comes to obtaining wholesale funding from the money markets. In this scenario, decisions on funding and liquidity management would also be taken at national level. By contrast, in an integrated market a cross-border bank would be able to manage its funding and liquidity centrally, via what is termed the group 'internal capital market'. In this case, the headquarters of the bank raises funds across the EU hubs and then channels them to the bank's entities in different Member States in order to fund their various asset exposures. Empirical work on the integration of the EU banking sector has tended to focus on this simplified approach linking integration and stability issues just to banks' funding and liquidity models (see Box 3.1).

However, EU banking sector integration is a much more complex process involving issues reaching far beyond the way in which banks manage their funding and liquidity. From the

customers' perspective, for instance, the choice of financial services and products available in any Member State, irrespective of the legal status and geographic location of the banks, is the really relevant dimension of integration.

From a cross-border bank's perspective, internal market integration means inter alia:

- establishing an organisation with clear leadership and reporting lines to headquarters;
- freely transferring know-how from the headquarters to the bank's entities in different Member States and vice versa;
- building up bank-wide platforms to market products efficiently and consistently across the EU using different distribution channels to meet customer needs;
- applying common standards to its business and sales practices;
- maintaining effective risk management functions and addressing appropriate risk culture across all levels and entities within the bank's organisation;
- using technology to develop and implement a shared group language to communicate inter alia strategies, policies, risks and cost controls.

It is particularly useful and instructive at this point in the crisis to consider the integration of EU cross-border banking activities, in this broader sense. Following the crisis, authorities both in the EU and outside have focused their attention inter alia on the systemic risk that large, cross-border banks can generate and on ways of reducing this risk in order to make the financial system more robust to shocks. All the more so as large cross-border banks had substantially increased their role in cross-border credit flows prior to the crisis and have been important drivers for financial integration in Europe. While the balance sheets of EU banks grew by 40% from 2004 to 2007, the assets of foreign subsidiaries of euro area banks in other euro area countries grew by 84% (ECB, 2010). They also played an important role in fuelling the external imbalances between surplus and deficit countries⁶⁴.

The issue of possible structural measures to reform the banking system and promote financial stability, including the complex issue of separating retail and investment banking functions, has been the subject of policy discussions for instance in the UK and the US⁶⁵.

Authorities within and outside the EU are focusing attention on the benefits that integration in the broader sense provides, in terms of the efficient allocation of capital, increased competition, economies of scale, the provision of more sophisticated and targeted financial services and diversified liquidity. In addition, although risk management in large, cross-border banks is more complex than smaller, regional banks, their presence in national markets could contribute to the overall strengthening of risk management practices and corporate governance in different countries where they operate. Finally, since large cross-border banks face different degrees of business complexity and risk, their overall business models are heterogeneous to some extent. The resulting diversity could in principle be beneficial from a financial stability and efficiency standpoint.

This chapter draws on detailed written answers that eight banks provided to a Commission questionnaire and subsequent bilateral interviews with them. The banks covered in this survey are all large European cross-border universal banks, and they should therefore not be considered as representative of the whole EU banking sector — consisting of some 10 163 banks (end 2009), the bulk of which are purely national. There can also be significant

⁶⁴ See also OECD Economics Department Working Paper No 828 'Minimising Risks from Imbalances in European Banking'.

⁶⁵ For the UK see the work of the Independent Commission on Banking, chaired by Sir John Vickers. Recommendations for the UK banking sector to the Government will be made by the end of September 2011. For the US see Volker Rule, January 2010.

differences between these banks and other large cross-border banks not covered in this exercise.

The aim of this chapter is to present business models⁶⁶ that a sample of leading EU cross-border banks (referred to interchangeably as ‘respondents’ and ‘participants’ below) employ and why they have chosen to do so. In contrast with the relative standstill situation of EU banking market structures presented in Chapter 1, large cross-border EU banks are reacting to the crisis by adapting their internal structures and operations in order to become more resilient to market events. These changes and their impact on EU integration are difficult to assess from the outside. Accordingly, it is useful to learn more about these changes and the reasons behind them.

The focus is not only on funding and liquidity but also on risk management, which is crucial for the viability of business (see above bullets). In that sense, we also look at the interplay between business models, market entry considerations and crisis developments, including the new regulation of the sector. We also consider the degree of integration within the banks’ activities and the extent to which the evolution in progress can contribute to the stability and efficiency of the EU financial system.

In principle, the results presented in this chapter do not represent the Commission’s views but an interpretation of the answers provided by the banks in the sample to the questionnaire and during interviews.

The chapter is organised as follows. The first and second sections summarise the main sample features and the market entry variables providing the framework for the business models studied. The third and fourth sections analyse funding and liquidity models as well as the risk management of the banks in the sample, with their challenges during the crisis. The last section provides the link between the business models studied with the integration and stability of the EU financial system.

3.3 MAIN SAMPLE FEATURES

The sample consists of eight selected EU cross-border banks, with approximately 200 million customers and 400 000 employees across the EU. The total assets of each bank in the sample are well above the average total assets of European banks (EUR 4.2 billion). All together, the eight banks represent around 20% of the total assets of all European banks at the end of 2009. They are organised as universal banks. About six of them focus largely on traditional commercial activities, in contrast to investment banking. This is reflected in the fact that for two thirds of the respondents, the contribution of retail and commercial revenues to profits exceeded 60% of the total over the last five years.

A common feature of the banks in the sample is that they all have a substantial presence in more than five EU countries, other than the bank’s home Member State. A substantial presence is defined as holding more than a 10% share of each national market where the bank is active. The activities of banks in the sample cover all EU countries, but their business activities are mostly concentrated in the largest Member States and in Eastern Europe. Several respondents have a large global presence, especially in emerging countries. Another common feature of these banks is that they have a predominantly centralised approach to lending policies across most market segments, irrespective of the legal status of their EU affiliates (branches or subsidiaries).

⁶⁶ We focus on some key aspects of business models, such as organisational and legal structure, funding, liquidity and risk management.

All banks in the sample have both branches and subsidiaries in other EU countries, albeit in different proportions. However, the choice of the legal form of their EU affiliates is not the central variable that explains current differences across banks' business models. The major differences arise from the degree of integration of the risk management of the group as a whole and from the funding and liquidity models of their subsidiaries⁶⁷.

Respondents to the survey considered that their geographic and business diversity helped them fare better in the crisis than their local competitors and peers. This answer is consistent with the results presented in recent empirical papers⁶⁸. However, two banks had some kind of direct government support, mainly due to issues linked to significant exposures to US toxic assets and to other non-traditional banking business.

The financial crisis and the subsequent regulatory overhaul⁶⁹ have led banks to amend their business models, which is an ongoing process. From the information collected, we can identify a tendency to streamline organisations in an effort to attain a simpler and more effective geographic distribution pattern. This includes concentration on core business lines and more integrated risk management. Six of the respondents are in the process of designing living wills⁷⁰ for their organisations. In addition, two of the banks in the sample have stand-alone subsidiaries (SAS)⁷¹ that by their nature have built-in firewalls against contagion. This might facilitate the design and establishment of living wills within their organisations.

3.4 MARKET ENTRY

The study examined the circumstances under which banks entered each national market and how it affected their choices. Market entry determined to a large extent their funding and liquidity models and influenced their risk management. In this section we explore two different aspects of market entry: legal form and geographic expansion by business lines.

3.4.1 Market entry and legal form

A combination of variables linked to market entry determined the legal structures that surveyed banks chose when they expanded substantially⁷² their EU activities across borders.

In particular, their decisions as to whether to establish branches or subsidiaries outside their home Member State were affected by:

- entry type: greenfield investments or acquisitions;

⁶⁷ There are no major differences in the way that surveyed banks manage their funding and liquidity in their branches abroad.

⁶⁸ A study by the ECB (2010) analyses changes in the EU banking landscape by looking at the business models from the angle of diversified (often described as the 'universal banking model') vs specialised banks. It finds that the diversified model has been less affected by the crisis as it is built on strong customer relationships and more stable funding sources, such as deposits. In addition, diversified banks take advantage of the economies of scale that result from cost sharing across geographic areas and businesses.

⁶⁹ As stated in the IMF November 2010 paper: 'The new Basel package is not "business model neutral," and, as intended, it will have a higher direct impact on investment banking activities. ... Traditional commercial banks would be the least affected, with their simpler business focus, while banks with significant investment banking activities would experience larger reductions, owing particularly to higher market risk-weighted assets'.

⁷⁰ Living wills are recovery and resolution plans for large banks that map out how to safely wind down institutions in case of failure, encouraging, in effect, simpler and more streamlined corporate structures.

⁷¹ SAS require banking groups to be organised as constellations of self-sufficient national subsidiaries, with effective firewalls between the parent and the affiliates, each holding sufficient capital/liquidity to survive alone.

⁷² We consider only those market entries in the EU where the surveyed banks have established a substantial presence.

- macroeconomic and political environment in the host country;
- timing of entry and regulation in place;
- distance between the home Member State and the new market.

Entry type. Market entry was carried out through either greenfield investment or takeover. In general, greenfield investment was conducted using branches, while in the case of takeovers, full subsidiaries were established. The choice of entry type tends to reflect when and where they expanded and the country in question. Five banks from the sample used both means of entry, albeit to a different extent. The remaining banks entered new markets through acquisitions only. Two banks from this category converted their subsidiaries into SAS. However, the market entries of all banks in the sample taken together were dominated by takeovers.

Macroeconomic and political environment. When ranking the factors that affected expansion decisions, host market attractiveness in terms of growth prospects came first for all participants. Nevertheless, the macroeconomic business cycle of the host country also affected the choice of legal form. For instance, branch expansions were more common in the boom period, when the country of destination was growing strongly. By contrast, subsidiaries were frequent in downturns and during periods of consolidation. The degree of macroeconomic and political stability in the host country was also deemed a key factor when respondents chose subsidiaries.

In geographic terms, entries into emerging Central and Eastern European Countries were typically via subsidiaries, while entries into mature markets were primarily through branches.

Timing of entry. The evidence shows that typically different legal forms were used for expansion at different times in the last two decades. Subsidiaries were prevalent in the 1980s and late 2000s, while branches were more common in the late 1990s and early 2000s. The establishment of the EU passport at the beginning of the 1990s, which facilitated a branch structure, might have affected the legal form only at the beginning. The expansion by subsidiaries in the early 2000s indicates that the EU passport did not affect the choice of legal form later on.

Regulation. Participants noted that regulatory issues, especially the allocation of responsibilities between home and host authorities (including supervisors, central banks and treasuries) were always considered in the decision process for market entry. These influenced mostly the decision banks took on the choice of the legal form for their expansion, rather than the decisions to expand abroad. Respondents reported that initial capital costs and taxes were important factors for choosing branches rather than subsidiaries.

Distance between home and the new market. The physical distance from the home to the new host market also affected the legal form chosen. Respondents which expanded by subsidiaries reported that the host country market distance was an important factor in their choice.

During the crisis, a quarter of the banks in the sample reconverted some of their EU subsidiaries into branches using the facilities of the EU passport regime. They expressed their willingness to follow this trend in the near future, because they are confident that this will reinforce their reorganisation process, raise efficiency and support better integration of local risk management into the group's risk management structure. However, some respondents stated that the relative advantages of branches over subsidiaries are becoming less significant in the new regulatory context. For instance, the forthcoming regulations put almost the same requirements on branches and subsidiaries, making the transformation of subsidiaries into branches less attractive.

3.4.2 Market entry and business lines

There are two main ways to expand business lines abroad:

- replicate the core business lines;
- add new business lines to the core business.

Replicate the core business lines. Respondents reported that their decisions to enter new markets by replicating their core business lines were taken mainly for two different strategic reasons: first, to follow domestic clients abroad and second, to expand their existing business. The latter usually results in takeovers of local institutions with compatible structure, where there is scope for efficiency gains in operations and management.

Add new business lines to the core business. Another way to expand abroad is by establishing new business lines that complement the existing ones. Specialised traditional retail banks, for instance, have also chosen to go abroad in order to supplement their core business with investment banking activities (or vice versa). In this case, the aim of expansion into new business has been twofold: first, to diversify business activities and second, to provide customers with a broader range of services and products. Through complementary business, banks are able to offer better service to their more sophisticated commercial clients.

The host country environment also conditioned cross-border banks' business line expansion. Sometimes, the business line chosen had a direct link with competition conditions and/or the saving culture in the Member State of destination. For example, entering mature markets (e.g. Germany) was limited to non-retail business lines, such as consumer finance and investment bank activities. This was primarily because the competition in this type of market discourages the establishment of a mirror universal bank model. Also in Spain banks had to enter via new alternative banking channels in order to succeed.

Some respondents reported that there had been new market entries in EU Member States, despite the financial crisis. For example, during the crisis two of the participants expanded their business in retail activities, in both mature and non-mature economies. They either replicated their existing business activities or complemented their core businesses.

Some respondents stated that, in principle, they were willing to expand to other EU Member States in the future in order to spread even further their geographically diversified presence. But they foresaw major constraints holding them back from doing so in the near future due to global uncertainty over:

- market and macro developments in most Member States;
- regulatory developments concerning systemically important financial institutions (SIFIs), liquidity ratios and other issues;
- national regulations that may hamper the free cross-border movement of liquidity;
- current exceptional measures, which hinder market forces from operating and providing business opportunities.

3.5 FUNDING AND LIQUIDITY MODELS

The efficiency of cross-border banks' funding and liquidity management operations is vital for their ability to conduct and expand business activities, and for cross-border stability. Funding reflects the bank's choice to source its liabilities, while liquidity management includes cash flow management across the institution's balance sheet, counterparts and location. Funding and liquidity models in cross-border banks have both been the focus of an abundance of recent literature.

Box 3.1 Business models of cross-border banks and stability of lending

Several studies have investigated the performance of the various business models of cross-border banks, particularly in relation to the funding/lending function and less so in the risk-management area. In general Jones (1992) differentiates between international banks — that tend to finance their foreign assets through cross-border flows of funds, and multinational banks — setting up subsidiaries abroad that borrow locally to finance assets. McCauley et al (2010) identify Japanese, German and French banks as international, and US, Spanish and Swiss banks as multinational.

These empirical papers rely on BIS databases (for locational banking and international banking statistics). The performance of the different cross-border funding models is measured by the ability of the affiliates to provide stable lending in the host countries when there is an external shock. Decentralised multinational banks, which relied less on cross-currency funding and international wholesale markets, tend to perform better in a systemic crisis (BIS, 2010; McGuire and von Peter, 2009; McCauley et al, 2010) whereas centralised international banks tend to perform better when the shocks are idiosyncratic to a specific region. Reflecting parental support, international bank subsidiaries are not obliged to rein in their credit supply during an idiosyncratic crisis (in one country), whereas multinational banks need to do so. In that respect, the propagation of the global systemic credit crunch was significantly more muted in countries where most of the foreign banks' lending was channelled from domestic funding sources, as illustrated by Latin America's relative performance in Kamil and Rai (2010). Thus, the BIS (2010) concluded that cross-border claims and locally booked foreign currency claims (often funded cross-border) dropped more abruptly than local currency claims (funded by local sources) in the crisis.

In any case, as Baba and Packer (2009) and Goldberg et al (2010) highlighted, the extensive use of internal cross-border funding flows — 'internal capital markets' (ICM) in the literature — in centralised international banks has a significant impact on the correlation between the rates of growth of customer loans and deposits. In times of distress, this can have a positive effect on financial stability, as support is provided to distressed foreign subsidiaries (Haas and van Lelyveld, 2009). Along those lines, studies such as Mihaljek (2010) showed that the drop in cross-border funds flows from EU banks to Eastern Europe and Latin America was more limited compared to Asia, partly reflecting the relatively high degree of financial and monetary integration in Europe. In addition, the role of parent funding in helping Swedish subsidiaries that maintained credit supply in the Baltic States over 2007-2009 was highlighted by the BIS (2010). However, the use of ICM in centralised international banks can also increase instability, by funnelling resources away from affiliates, thus contributing to the amplification of shocks. Furthermore, the IMF (2011) recently explored the links between cross-border banks' flows with the legal forms of cross-border banks. The conclusion was that the stability and resilience of cross-border capital flows are more related to idiosyncratic factors in host countries than to the legal structure of foreign bank affiliates in these countries.

In practice, funding models of cross-border banks are diverse, spanning centralised and decentralised operations (BIS, 2010). The diversity of funding models (ECB, 2010) is also a source of systemic resilience.

Funding and liquidity practices of surveyed banks are diverse. In general terms, the decision to enter different Member States has influenced their funding model. Funding and liquidity practices depend on demand and the supply of savings, which differ between Member States. They depend on historical capital accumulation, saving culture and potential growth. For example, there are significant differences between Germany, Poland and Belgium, which are experiencing a structural liquidity surplus (i.e. more savings than assets), and Spain, Italy and Bulgaria, where structural liquidity gaps (i.e. less savings than assets) are typical. In addition, the specific features of instruments used to raise funds seem also to be closely linked to each

country's funding practices⁷³. For example, some retail funding rates such as for deposits and short- to medium-term bonds are floating in Spain, the Netherlands and Poland whereas they are fixed in Germany and Italy. Therefore the presence of the surveyed banks in those countries affects their funding.

3.5.1 Two main models

Notwithstanding the differences between respondents' funding and liquidity practices, they can all be categorised broadly into two main models, either coordinated centralised (CC), with 75% of respondents, or coordinated decentralised (CD), with 25% (see Annex 1 for more information on these concepts).

CC banks are defined by their high degree of centralised wholesale funding and coordinated liquidity management. Their wholesale funding is mostly raised through the parent bank in its home Member State, in one to four other EU hubs and in non-EU country centres. It is then transferred from the centre to its subsidiaries through the group's 'internal capital market' in the form of intra-group loans. These loans are subject to centralised transfer pricing, which represents the costs that the centre charges to its affiliates in the intra-group loan operations. The degree of centralisation differs between banks in the sample. It depends on cost efficiencies (e.g. advantages of hubs), risk appetite and management experience.

In contrast to the CC approach, in a CD model, banks have subsidiaries which mostly fund themselves and are largely autonomous in capital and liquidity management. For instance, a bank with a constellation of stand-alone subsidiaries (SAS) would fall into this category. The main characteristic of CD banks' subsidiaries is heavy reliance on local deposits for their funding, which is reflected in their relatively low loan to deposit ratios compared to the ratios of CC banks. On average, the loan to deposit ratio is 90% for CD and 120% for CC banks. In addition, each subsidiary accesses its local wholesale market, subject to central coordination and monitoring. The composition of subsidiaries' funding in those banks that follow a CD approach often reflects their market share or the country in which they operate. This evidence points to the same funding guidelines being established centrally and having to be implemented locally by all affiliates across the EU. However, structural liquidity gaps may still appear in funding of some specific business lines, such as consumer finance. In such cases, the parent bank may provide funding from its international hubs, also using the group's internal capital market. But these intra-group transactions in the CD bank are subject to strict limits and governance rules and are carried out at market prices.

Historically, there have been different factors that have influenced the choice of the funding model of a bank during its foreign expansion. The two most important ones are the physical distance from home to host market and the way banks expanded business lines abroad. Along these lines, CC funding was usually established in the case of market proximity and regional integration (e.g. in the Baltics for Scandinavian countries), and CD funding was chosen for more distant markets. Also CD funding was closely linked to replication of core business expansion.

CC participants reported the importance of economies of scale and scope as well as integrated single brand signalling as the main variables affecting the choice of funding. On the other hand, CD banks highlighted that self-sufficiency and local factors are paramount for their funding. Local factors include competition and the central bank operational framework. However, respondents altogether stressed that, irrespective of the funding model

⁷³ In any case, the general policy for all the participants is to translate funding raised at fixed rates into floating rates and foreign currency funding into local currency. This depends consequently on interest rate and currency risk on the one hand and funding and liquidity risk on the other, although the interplay is somehow managed separately.

chosen, diversification of funding sources, their stability and their cost differentials are crucial in determining funding practices. In contrast, taxes, informational costs and operational risk have a minor impact in funding decisions. These findings are consistent with the general theoretical framework⁷⁴.

3.5.2 Impact of the financial crisis on funding and liquidity management

The financial crisis has impacted the funding models of cross-border banks. Before the crisis, liquidity was usually taken for granted, and the composition of funding by instrument and maturity was a function of the bank's needs and risk appetite. As liquidity became a scarcer commodity, funding models became more sensitive to the availability of capital in terms of instruments, geographic diversification and currencies. Following the crisis, all respondents stressed the increasing importance of funding diversification, stability, self-sufficiency, trapped pools of liquidity⁷⁵ and the central bank operational frameworks. Half of the respondents considered that these factors have arisen not just because of the crisis, but also due to the regulatory response following the crisis.

In order to fulfil their increased funding needs, banks have in some cases placed their own bonds with retail customers. However, they affirmed that this is just a passing phase. There are other trends that will possibly remain in the long term:

- Most banks stated that the crisis has triggered a shift toward greater reliance on long-term funding and retail customer deposits. Over the period 2006-2009, the share of customer deposits in overall funding rose by 22%.
- Secondly, banks noted an increased investor appetite for covered bonds, which are collateralised to a significant extent by their subsidiaries' local loans. As a result, banks have become more closely bound to local markets. While some respondents are concerned that a herd-like shift to the same sources of funding could increase funding costs and volatility, others expect the shift to be gradual.
- Thirdly, all participants claimed that their reputation as large, diversified, EU cross-border banks gave them an advantage compared to their local peers in attracting more retail deposits. Most respondents have internally reorganised in order to increase subsidiaries' self-sufficiency and to enhance their access to local markets, for example for investors in covered bonds.

Currently, more attention is paid to the allocation and use of liquidity in a bank's overall financial planning process. Governance arrangements for treasury and asset liability management have been tightened up and subsidiaries have been subject to tighter constraints from the centre. In addition, CC banks admit that the crisis highlighted the need for more comprehensive monitoring and reporting of liquidity operations. This has led to different changes, such as additional liquidity risk stress scenarios and the development of internal early warning systems. These banks have also refined their internal pricing of liquidity and funding risk and have assumed greater restrictions on their ability to convert liquidity between 'hard' currency pairs. All these measures make intra-group transfer pricing in a CC approach similar to wholesale local funding costs, which is typical of a CD model. In this case, it could be said that the internal capital market of CC banks mirrors the local wholesale funding cost of CD banks and that both models are in this sense converging. This might be

⁷⁴ For a detailed explanation of these factors and their links to the different funding models, see BIS (2010), pp. 13-14.

⁷⁵ 'Trapped pools of liquidity' means that banks cannot freely move extra liquidity across their entities within the group. They appear when the host country authorities exercise greater control over the liquidity of subsidiaries.

an advantage in the case of a systemic crisis such as the current one, but it could diminish the stability features of the internal capital market in the event of an idiosyncratic shock (i.e. to one region) (see also Box 3.1).

Some of the surveyed banks are developing a framework for intra-group asset transferability through securitisation. Transferring assets from an affiliate with a structural liquidity deficit to an affiliate with a structural liquidity surplus through intra-group securitisation could facilitate liquidity and capital management within a group. This development could lead to an internal asset market within the group. But, for this framework to be efficient, the transfer of the assets through securitisation should be made at market prices and the asset risk should be effectively transferred.

During the crisis, funding of CD banks has not been affected as much as funding of CC banks. This was expected, since banks following the CD model did not have to rely heavily on wholesale markets, which have been hit particularly hard by the financial crisis. However, CD banks have paid even more attention to their liquidity management frameworks and to crisis contingency plans, because of reputational risk through possible funding problems in their subsidiaries.

Regardless of their funding model, all surveyed banks expressed their concerns about the possible negative impact of the Basel III liquidity framework. They stated that especially the definition of liquid assets in the Liquidity Coverage Ratio (LCR) and in the Net Stable Funding Ratio (NSFR) was too restrictive, limiting the room for liquidity management and increasing risk concentration in a few asset classes. Allegedly, this could have severe consequences for market liquidity and for banks' access to long-term funding. They claimed that the proposed NSFR means that some short-term assets will have to be financed with long-term liabilities, thus creating a positive liquidity gap and impairing the banking maturity transformation function. Some banks stated that the NSFR unfairly penalises retail commercial banks due to the differential treatment of retail credits versus wholesale clients.

Banks claim that, in addition to Basel⁷⁶, decisions by national regulators in some Member States hamper liquidity management of banks operating in these countries, increasing their operational and compliance costs as well as operational risks. Therefore, both the financial crisis and the subsequent regulatory changes are introducing modifications in the asset and liability management of most participants.

3.6 RISK MANAGEMENT

3.6.1 Integrated risk management and general framework

In addition to funding practices, effective risk management is central to safe and sound business activities. This is a particular challenge for cross-border banks, operating in large markets, with different cultures and exposed to diverse risks. It is generally agreed that an integrated risk management approach, with a strong risk culture in the organisation stemming from its leadership and encouraging constant communication, is the best practice for effective risk management⁷⁷. Integrated risk management requires a bank-wide approach that addresses risks across all levels and entities in the organisation, bank-wide risk policies and standardised concepts to facilitate effective implementation across the bank. It presumes that

⁷⁶ The Basel III framework sets new liquidity indicators, calibrated under stressed scenarios for both short-term and structural liquidity management. It therefore encourages diversification of funding sources (away from interbank funding, to avoid concentration risk in time and instruments), the creation of liquidity buffers, the maintenance of minimum cash levels and the adoption of calibrated going-concern structural liquidity ratios.

⁷⁷ See Booz&Co (2008).

risks across the bank are aggregated, monitored and managed in a comprehensive manner. In an integrated approach, risk management is incorporated into the overall business planning and decision-making process. This is achieved through a risk management framework, based on economic capital, measured using risk-adjusted performance metrics. It is then executed through operational limits that control the level of risks run by the group, business lines and regions.

Integrated risk management requires a high degree of know-how of the business across the group (headquarters and affiliates), as well as appropriate technology to facilitate the use of a common risk management framework, including a common language and definition of risk, and a pervasive risk culture. Such a framework requires the same concepts, definitions, IT systems, tools, templates and reporting formats to be used throughout the bank, whether in headquarters, subsidiaries or branches. An effective risk culture involves staff at different levels and locations being committed, competent and professional in their approach to risk management.

Integrated risk management does not imply neglecting the management of risks at local level. For all participants, the first line of defence is at the front office, where risks are taken. This is run locally, independently of geographic location or legal form. The second line of defence is the group risk management, which owns the risk management framework. The third line of defence is the group audit. Depending on the complexity of the business and the nature of the risk (credit, operational, liquidity or market risk), different parts of the risk management process operate locally or centrally, and in some cases they operate at both levels. The latter is especially the case for credit and operational risk (see Annex 1). At a broader level, there is a consensus among participants that overarching decisions regarding risk appetite, management strategy, policies, framework and limits should be set centrally, but the organisation should rely on the local knowledge of individual business and risk managers to implement them in day-to-day operations.

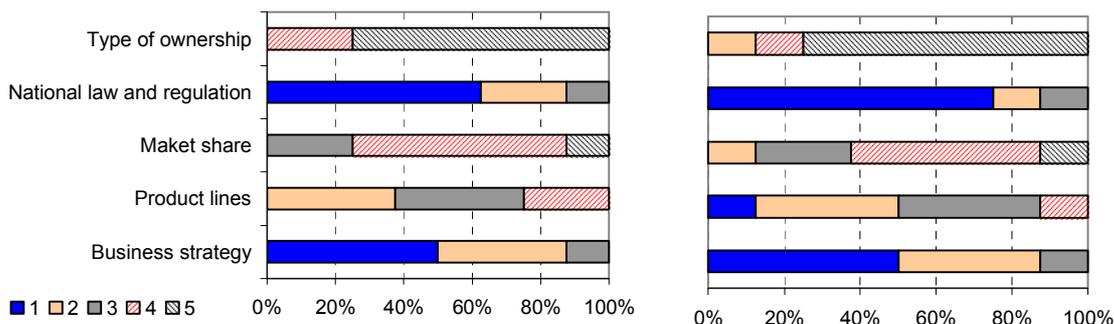
For the sample studied, the degree of integration in risk management was not independent of the degree of centralisation of the funding and liquidity model. Contrary to the common perception that decentralised funding would imply less integrated risk management, our understanding from the banks' responses is that those banks that apply CD funding models were among those with highly integrated risk management. This is due to their focus on replicating core business lines abroad and the resulting need to exploit some economies of scale and scope. Therefore subsidiaries get full support from the parent bank in terms of risk framework, group risk best practices and analytical IT risk systems. Enforcing integrated risk management is central for them in order to generate that added value for the whole group, which is greater than just attaching a new affiliate to the bank.

3.6.2 Impact of legal form and market entry on risk management

While respondents do not view the legal status of their affiliates as the driving force for the evolution of their risk management, it is obviously easier to integrate a branch into the group's risk management than a subsidiary. Banks in the sample stated that risk management models and functions were shaped by internal factors, such as business expansion strategies and product lines, as well as by external factors, including national law and regulation. This is the case for all risk categories, such as credit, operational and market risk. Thus for credit risk, two thirds of the banks in the sample stated that national law had been the most important factor, followed by business strategies and product lines (see Chart 3.6.1). All banks stated that the type of ownership was not a key variable in the way they manage risk in their subsidiaries.

In contrast to funding and liquidity characteristics, the banks' risk management models (acquisition or greenfield investment) are not influenced by the way in which they entered a market. Best practice in risk management upon market entry is to implement risk strategies based on local market parameters in alignment with the targeted strategy of the group for the market in question. This then feeds into the group-wide risk management framework. The challenge of the integration process is to implement the group's risk management standards and functions or harmonise the existing ones effectively and quickly.

Charts 3.6.1: Credit risk for the HQ (left) and for the affiliates (right)



Source: Own evaluation of banks' responses to the survey;

Legend: 1 stands for "very important" and 5 for "not important" with 2, 3 and 4 being in between these two extremes

In practice banks have faced this challenge differently, depending on their experience with acquisitions and the complexity of the acquired business. A longer track record of acquisitions helps a bank to improve and speed up the integration process. A good reputation helps to ensure acceptance of the cultural change in the acquired entity. Furthermore, integrating risk management is less complex for entities with similar business activities than for those with new business lines that complement the business activities of the group. In the former, significant human resources, know-how and technology can be quickly exchanged across bank departments. And similarities between business lines make for easier understanding and monitoring of the risks by the parent and accelerate cultural absorption. By contrast, integrating risk management functions after an acquisition of complementary business lines could be a daunting task. Complex acquisitions trigger significant changes in the group-wide risk decision processes, risk management policies and competence lines across the board. This type of market entry is fraught with difficulties (e.g. compatibility of risk management systems) and constraints, especially on data transfers to the headquarters, which makes it difficult to monitor group-wide exposures.

Some participants consider that if the group aims to maintain a high level of organisational flexibility, a more decentralised approach can work in specific circumstances. This is for example the case for risk identification and risk calculation for credit and operational risk that can be mainly carried out locally. In contrast, the risk management processes for market risk is more centralised. Nevertheless, there are activities which by their very nature must be carried out centrally for all banks. For example, the group's executive carries out the allocation of economic capital in accordance with the risk appetite of the board. The same applies to policies and risk limits at a high portfolio level.

3.6.3. Impact of the financial crisis on risk management

During the pre-crisis credit boom, the move towards more integrated risk management for cross-border banks was not seen as a top priority by some respondents. New subsidiaries were often viewed as investments, rather than integral parts of the group. They remained therefore largely autonomous and risk management activities were not fully integrated. In addition, raising funds was not a major constraint and profit seeking led to pressures on risk

departments, undermining the prominence of risk discipline. Thus, attention to risk management was well below the levels of the risk appetite of some banks.

The global financial crisis has rigorously tested cross-border banks' risk management. However, four participants claim that their risk management was effective and no major changes had been undertaken. These banks fared relatively well in the crisis compared to their peers. Nevertheless, the crisis revealed serious weaknesses in some participants' risk management due to poor technology and over-reliance on complex risk models. Some shortcomings have also been detected in the general control and decision-making process, including line management problems, the ability to generate timely relevant risk analysis and insufficient consideration of warning signals. The crisis has been a 'wake-up' call to overhaul the group risk management functions and thus strengthen risk awareness and controls at parent bank level.

After having received state aid (2008-2009), two participants began to make considerable changes to their risk management. They have moved from divisional lines or silos towards a consolidated and cross-divisional perspective, which is typical for a matrix organisation⁷⁸. While most of these banks have streamlined their business due to the crisis, they have greatly raised the profile and headcount of the risk function, especially at headquarters level.

Many respondents have improved their market risk management infrastructure to better capture the intersection between credit and market risk. In addition, substantial enhancements of liquidity management systems have been made, reflecting the challenge all banks have faced in managing their liquidity in the face of severe market stress.

The financial market meltdown led to a deteriorating economic environment in many European countries. Given the fact that most sample banks have significant commercial business in Europe and their risk profiles are dominated by credit risk (except for one respondent), they are facing serious challenges in managing the resulting risks. The increased level of non-performing loans and potential impairments at a number of banks have increased the respondents' use of more detailed portfolio analyses and group-level monitoring. It has also triggered additional limit-setting initiatives at some of the banks.

Different measures have been introduced to keep credit losses manageable, such as:

- early warning systems with stress scenarios and concrete decision processes implemented in all subsidiaries and monitored by the parent;
- corporate restructuring and recovery policies approved by the senior management and transposed to the whole group. Their implementation and monitoring involves continuous communication of risk management in the parent and the sales force. The outcomes have an impact on the performance of the sales units' remunerations.

Thus, since the onset of the financial crisis and partly due to current and expected re-regulation, some participants have rapidly moved towards a more integrated risk management approach than hitherto. Banks have established more comprehensive tools to monitor and manage risk at aggregate group level. These include the use of demanding stress-testing parameters and scenarios, more detailed portfolio analysis of group exposure, frequent monitoring of large exposures and early warning systems. They are better integrating their risk management, strengthening the reporting lines and the role of risk

⁷⁸ A matrix is an organisation structure with multiple responsibilities and reporting lines. It reflects the complexity of an organisation with different and sometimes competing priorities, which are driven by function, geography, business units and customer segments. The value of the matrix lies in the way people work together to resolve daily conflicts and trade-offs.

committees. All this underpins efforts to increase awareness of risks and improve risk communication within the banks.

3.7 CONCLUSIONS

Respondent banks are large universal cross-border banks, each having significant retail and commercial operations in at least five Member States. The extent to which they do their business out of branches or subsidiaries in host Member States varies considerably.

Respondents reported that their choice between the two types of affiliates tends to reflect the way that they originally built up their business in other Member States (with e.g. greenfield investments being mostly branches and acquisitions being primarily subsidiaries), as well as other factors (such as whether there were capital flow constraints when they expanded abroad, perceptions of central bank support, and tax).

They emphasised that the manner in which they carry out key functions such as funding and risk management is not determined by the legal structure of their EU business.

Respondents which funded themselves on a coordinated but decentralised basis in the crisis found that their funding was more stable than those which funded themselves centrally. Partly reflecting this, all respondents have sought to increase their dependence on local funding, especially retail deposits and covered bonds. However, some noted that intra-group flows remain an important channel for funding their affiliates.

Respondents report that integrated risk management systems proved extremely beneficial during the crisis. This was true whether the banks funded themselves on a centralised basis or by requiring their national affiliates to do so locally.

However, the degree of integration in risk management has been different among the respondents, depending in part on the manner in which they grew their EU business. Where they replicate their existing business in a new Member State, risk management integration tends to be easier and faster than when they had developed entirely new business lines. Those banks that were in the middle of integrating a new business, and whose risk management was accordingly still largely decentralised, have been particularly vulnerable during the crisis.

Reflecting their experience in the crisis, surveyed banks have made and are continuing to make significant investments in risk management infrastructure, tools and controls. Thus their risk management has become more centralised, unlike their funding, which is increasingly decentralised. It cannot be clearly stated that the trend towards integrated risk management will be long lasting. Nevertheless, the investments already made would allow them to further conduct their risk management in an integrated way.

Respondents, most of which received no government support in the crisis, consider that the high level of diversification, by business and geographic location, helped them weather the crisis relatively successfully.

The survey evidence suggests that the stability of sample banks during the crisis was less a function of the legal structure of their EU operations than the manner in which they organised their core functions, in particular funding and risk management. Thus, regulatory policy should not only consider the legal structure, but pay more attention to the way banks conduct their business.

In practice a combination of decentralised funding and integrated risk management contributed substantially to resilience during the systemic crises. Centralised funding can in principle play an important stabilising role when a crisis is confined to one Member State or

region. This suggests that stability is best ensured by an appropriate balance between the two funding models.

ANNEX 1: MODELS OF BANK FUNDING AND LIQUIDITY PRACTICES

Geographical aspects of bank funding

	Headquarters	Local subsidiaries
Centralised model	Framework, definition and control of limits, funding instructions	Implement as instructed ¹
	Guidelines, issuance	Implement with some flexibility
	Focus on wholesale markets (volume and pricing)	Focus on customer deposits (pricing and amounts)
Decentralised model	Group limits and policies defined by Group ALCO, ² which also approves local ALCO decisions	Local ALCOs determine their local framework within the boundaries set by the group ALCO
Coordinated model	Framework, guidelines, limits, etc	Implement
	Funding plan, targets, pricing	Implement with flexibility
	Focus on main currencies, wholesale and long-term funding	Focus on other currencies, retail and short-term funding

¹ Local subsidiaries may or may not raise local funding. Some fully centralised banks report that subsidiaries raise no local (wholesale) funding, except where required by local regulation. ² Asset and Liability Committee.

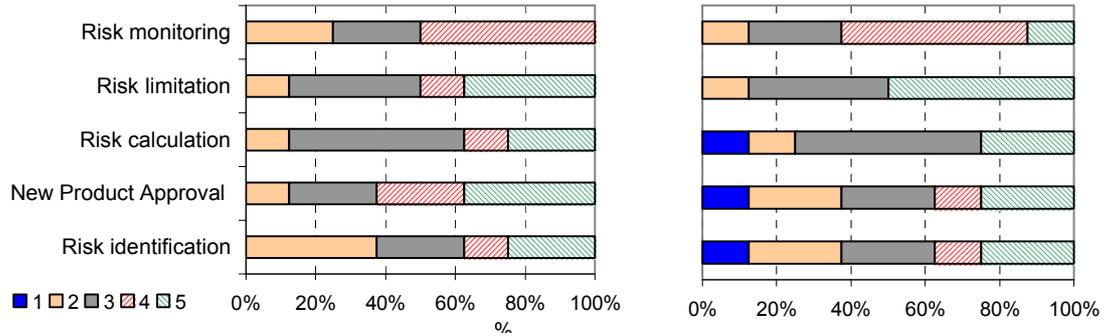
Source: BIS 2010, p. 15

ANNEX 2: COMPONENTS OF THE RISK MANAGEMENT PROCESS

Components of risk management process that are accomplished locally or at the headquarters (HQ) for different risks types as a function of banks' responses in percent.

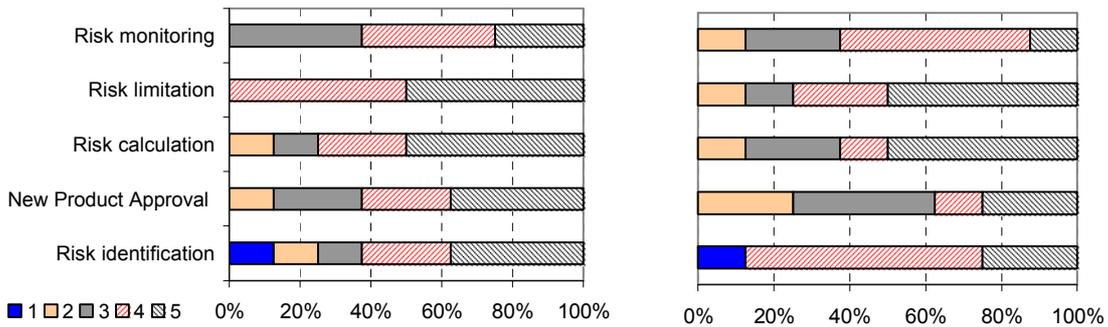
1 stands for 'locally' and 5 for 'at the HQ' with 2, 3 and 4 being in between these two extremes.

Charts: **Credit risk for the HQ (left) and for the affiliates (right)**



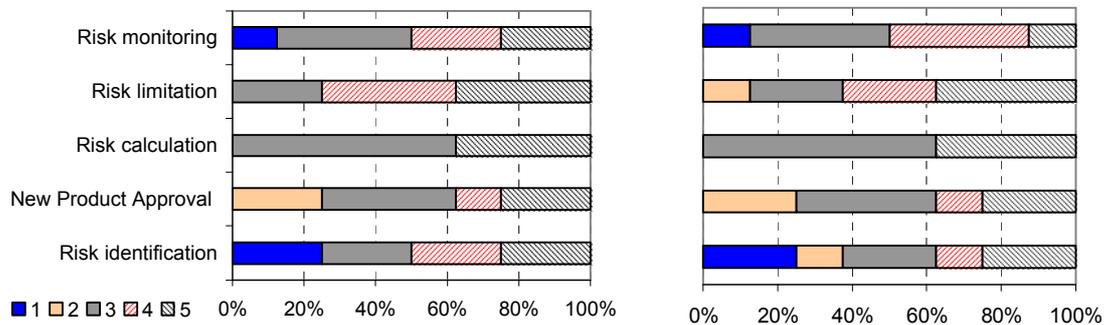
Source: Own evaluation of banks' responses to the survey

Chart: **Market risk for the HQ (left) and for the affiliates (right)**



Source: Own evaluation of banks' responses to the survey

Chart: **Operational risk for the HQ (left) and for the affiliates (right)**



Source: Own evaluation of banks' responses to the survey

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