

**JOINT COMMITTEE REPORT ON
RISKS AND VULNERABILITIES IN THE EU FINANCIAL SYSTEM
AUGUST 2013**

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EXECUTIVE SUMMARY

The European financial system continues to face a range of interrelated, cross-sectoral risks.¹ These risks necessitate a concerted response both at the political level and from the European System of Financial Supervision, including the European Supervisory Authorities (ESAs). Although important policy milestones have been reached, the key risks identified in the March report continue to challenge the stability of the European financial system. Subsequent developments have also highlighted some of these risks.

In particular, increased volatility in longer-term interest rates and concerns about the future path of interest rates combined with the current low interest rate environment creates an horizon of uncertainty for which it is difficult for financial institutions to hedge. Moreover, the resolution and recapitalisation of Cyprus banks increased uncertainty about the risk of bail-in in future bank resolutions, although several of these have been addressed by agreement on a framework for Bank Recovery and Resolution (BRRD). Finally, several cyber-attacks on the internet and mobile services of various banks in April and June have highlighted both operational risks in general and risks of cyber-attacks in particular.

Although near-term risks to the EU financial system from the euro area debt crisis have generally abated with improved market confidence since the March report, EU financial institutions remain vulnerable to a sudden switch in sentiment and spread reversal. The **weak macro-economic outlook** continues to challenge the financial position of banks, insurers and investors. Consensus macro-economic forecasts have been revised down since March, which may lead to further deterioration in the profitability and asset quality of banks, insurers and other financial market participants. In particular, the weak economic environment creates challenges for profitability in the form of new lending opportunities and interest income generation opportunities for banks. Following a series of successful recapitalisations, the trend of a continued deterioration of the quality of banks' loan portfolios highlights a clear need for continued de-risking across the EU banking sector, which is likely to be manifest in changing business models and more bank resolutions. Market growth in the insurance sector also remains subdued as slow economic performance puts pressure on the sale of insurance policies.

The macro-economic down-turn has necessitated unprecedented policy responses from monetary authorities, generally lowering policy rates and expanding the range of monetary operations. Such operations aim at stimulating the economy and have lessened vulnerabilities in the banking sector and contributed to financial stability in the short term. At the same time, however, **the protracted low interest-rate environment** may lead to reduced profitability of European banks and contributes to pressures on interest margins. Low interest rates also introduce solvency pressures on insurers and defined-benefit pension funds from higher present value of long-term liabilities and depressed reinvestment returns, especially visible where market valuation is already in use. It also creates incentives for search for yield behaviour by institutional investors.

Financial regulation and supervision need to ensure that, consistently across the EU, financial institutions fully recognise and manage these risks and ensure resilience against the risks both of a prolonged period of low interest rates and of any sharp adjustment to interest rates. The implementation of Solvency II would see a general move to market consistent valuation and a risk based solvency requirement and it is essential that insurers do not store up risks that may crystallize suddenly with the implementation of Solvency II.

¹ This report focuses on the broad risks and conditions within the EU. For the sake of brevity it omits individual country specific details. Hence, it does not fully reflect the wide dispersion of risks and conditions throughout the EU and does not always represent risks and conditions within the individual countries perfectly. Therefore the drawn conclusions apply only on an aggregate European level. This qualification applies throughout the entire report.

The evidence of **increased concentration in domestic markets and a fragmented European financial sector** has continued. In particular when it comes to cross-border banking activity, there is evidence of a material scale back of intra-EU cross-border lending into economies experiencing sovereign stress or recession. As evidence suggests, lending rates for loans extended to comparable real-economy firms differ significantly according to the firms' country of domicile. Such increased cross-country dispersion of lending rates has substantially weakened capital allocation. Consequently, firms face increasingly different credit supply and pricing conditions according to their domicile and irrespective of their own profitability and risk. Recent qualitative information available to EIOPA also indicates that the financial and sovereign debt crisis led insurers to increase the domestic bias in their asset portfolios. Moreover, the signs of clustering of financial markets within the EU continue with a formation of two main clusters in sovereign debt markets driven by a realignment of investors' risk assessments.

The reliance on collateral and especially high quality assets such as governments bonds led to rising concerns about **potential collateral shortages**, also discussed in the March report. However, aggregate data currently do not point to substantial imbalances, although there is still a threat of local shortages. This is particularly the case if high quality collateral is concentrated in a few large institutions and if the collateral remains idle in their books. At the same time, collateral transformations, and in particular a potential lack of transparency stemming from those, are likely to increase the risks of interconnectedness, pro-cyclical effects and a lack of information in the case of an eventual resolution process for a large financial institution.

The financial reports of financial institutions and notably banks have been heavily criticised during the financial crisis which has led to **reduced confidence in balance sheet valuations and risk disclosures**. Many financial institutions recognise economic losses that are embedded in portfolios of financial assets only too late and in insufficient amounts. Moreover, market uncertainties regarding perceived inconsistencies in the calculation of banks' risk weighed assets (RWA) have negatively affected market perceptions of EU banks, an issue which is currently being reviewed by the EBA in the second of its series of investigations in risk weighted asset calculations.² Lack of transparency about the pricing and valuation of complex financial instruments also poses a risk to the financial system and has the potential to impede liquidity in affected market segments.

Asset quality reviews can address uncertainties in balance sheet valuations, and an asset quality review should be conducted prior to starting the Single Supervisory Mechanism (SSM) for banks which will be subject to direct supervision of the ECB in the SSM. An EBA agreement on recommendations to supervisors to conduct asset quality reviews on major EU banks should also contribute to dispel concerns over the deterioration of asset quality of major EU banks. A particular problem for the insurance sector, however, is the continued absence of EU-harmonised regulatory valuation rules due to the delays in Solvency II implementation.

The **quality and continuity of key financial benchmarks in the EU** remains a key concern. Erroneous or manipulative quotes result in a loss of investor confidence, reduce market transparency and increase transaction and hedging costs. A set of principles published by ESMA and EBA aims to address the problems in the area of benchmark setting processes in the period until a potential formal regulatory and supervisory framework for benchmarks has been devised in the EU, and the two authorities called upon benchmark administrators to encourage benchmark submitters not to withdraw from benchmark panels. The Joint Committee of the ESAs considers that inter-bank reference rates should be based on strong and active panels. More generally, conduct-of-business risks around financial institutions engagement with consumers and

² <http://www.eba.europa.eu/-/eba-publishes-second-interim-report-on-the-consistency-of-risk-weighted-assets-in-the-banking-book-of-eu-banks>

investors continues to be a concern from both a conduct and prudential perspective, with the impact of redress costs material in some jurisdictions.

Several cyber risk incidents since the previous report have raised the profile of **operational risks of cyber-attacks**. In April 2013 several Dutch and other banks were hit by a Distributed Denial of Service (DDoS) attack, which temporarily closed down some banks' internet and mobile banking services and affected payments by other banks. In June, US authorities charged several individuals in connection with a global cyber-based series of bank robberies, where money was fraudulently transferred to pre-paid payment cards and withdrawn from ATMs around the world. Recognising that some amount of operational risk is unavoidable, banks are required to hold capital against operational risk. But it is important that financial institutions do not see operational risk capital as a substitute for sound risk management of operational risk.

INTRODUCTION

Important policy milestones have been reached in EU financial regulation since the previous Joint Committee Report on Risk and Vulnerabilities, including the adoption and entry into force of the Capital Requirements Directive (CRD-IV) and Regulation (CRR), and agreement on the Single Supervisory Mechanism as well as the Council's General Approach on a framework for Banking Recovery and Resolution (BRRD)³. However, the key risks identified in the previous report continue to challenge the stability in the European financial system. These risks, although presented individually as separate sections in this report, are often highly interlinked and require a concerted response by policy makers both at the political level and from the European System of Financial Supervision including the European Supervisory Authorities (ESAs).

While the range of risks facing the EU financial system may be little changed since the previous report, subsequent developments have highlighted some risks more than others. Those developments are reflected in this report and include:

- increased volatility in longer-term interest rates and concerns about the likely future path of interest rates;
- the resolution and recapitalisation of Cyprus banks, involving bail-in of deposits in excess of the €100,000 deposit guarantee limit, and raising concerns about the risk of bail-in in future bank resolutions, which were later in part addressed in the Council's agreement on BRRD; and
- increased concern about operational risks of cyber-attack.

1 RISKS FROM A WEAK MACRO-ECONOMIC OUTLOOK

The macro-economic outlook has worsened slightly since the previous Joint Committee Report on Risks and Vulnerabilities. In July, the IMF revised down its April World Economic Outlook (WEO) projections⁴ for major emerging market economies, for the US and for the Euro Area. The IMF now expects both the EU and especially the Euro Area to remain in recession for 2013. This weak macro-economic outlook poses risks to the financial situation of real economy companies and households, as well as challenges to financial institutions' asset quality, profitability and solvency.

³ For a summary of the Irish Presidency achievements, see <http://www.eu2013.ie/ireland-and-the-presidency/about-the-presidency/achievements-report/>

⁴ For details of IMF revisions to WEO projections, see <http://www.imf.org/external/pubs/ft/weo/2013/update/02/pdf/0713.pdf>

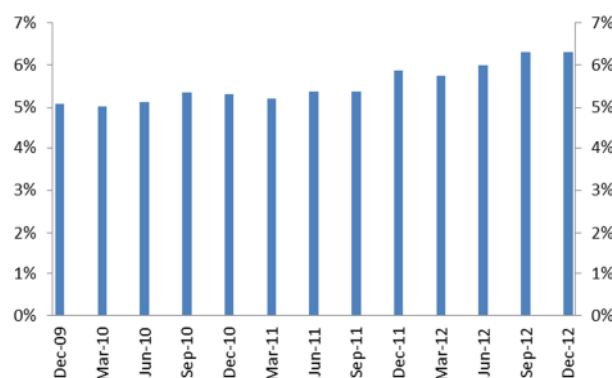
1.1 BANKING SECTOR ASSET QUALITY, PROFITABILITY AND FUNDING RISKS

The outlook for the EU banking sector in the near future remains subdued, given the continued disappointing economic activity and deep recessions in some parts of the EU. Consequently, significant challenges within the EU banking sector continue to persist due to probably rising provisions and continuing asset quality deterioration, and these trends are showing no sign of reversal.

In spite of a continued weak macroeconomic environment, the EU banking sector has nevertheless observed some limited improvements in market confidence, as noticeable by both debt and equity investors in the sector. Some discrepancies between financial market perceptions on the one hand and developments in the real economy on the other hand can thus be observed. Capital levels of EU banks continued to maintain an increasing trend, notwithstanding the challenging environment. In order to ensure that the capital is preserved in the system, in July the EBA published a recommendation on capital preservation aimed to preserve the enhanced capital base EU banks built to meet the requirements put forward with the 2011-2012 EBA capital exercise. The events in Cyprus did to date not materially affect improved conditions for banks, underlining the resilience of improved market confidence.

There is a need for continued de-risking across the EU banking sector, as a number of banks have not yet completed the process of cleaning-up their balance sheets. Deleveraging is on-going through the reduction of balance sheets and loan books as well as through decreasing risk-weighted assets and loan-to-deposit ratios, and a steady reduction in bank sector leverage can be observed. However, pace and scope of deleveraging and de-risking varies across regions, and its right pace requires close attention. While sharp or disorderly deleveraging would significantly restrict bank lending, and can currently not be identified in Europe, a slow and unconvincing process of deleveraging may raise questions of continued over-valuation of assets, undermining market confidence and normal funding for growth. The trend of a continued deterioration of the quality of banks' loan portfolios exacerbated further in the past months. Loans in arrears and impaired assets in particular, continue to increase. At the same time, provisioning has in some cases not increased in line with rising credit risks, which continues to raise questions on the extent to which provisioning is adequate. The EBA key risk indicators also indicate a decrease in average coverage ratios for EU banks.

Figure 1 Impaired loans and past due (>90 days) loans to total loans – Weighted average

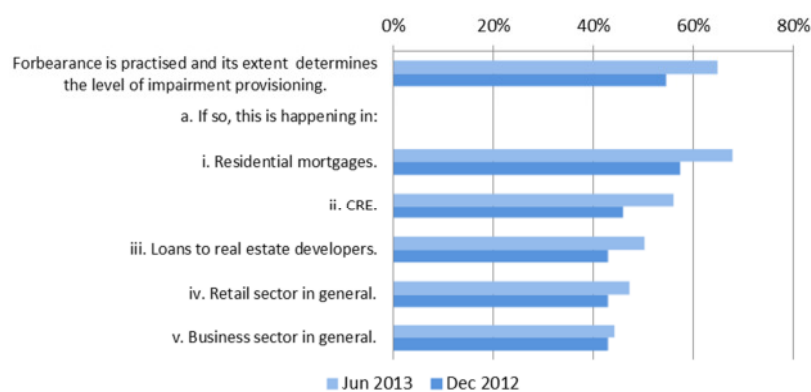


Source: EBA KRI

In light of a continued weak economic environment, a further deteriorating quality of most segments of loan portfolios is expected, but in particular of SME lending, residential mortgage and of commercial mortgage

portfolios. Moreover, different national approaches and banks' widely differing practices at the EU level to address not only asset quality concerns, but also the extent of debt forbearance create significant uncertainties. The EBA agreed, in May 2013, on recommendations to supervisors to conduct asset quality reviews on major EU banks in order to dispel concerns over the deterioration of asset quality⁵. It also proposed definitions of non-performing loans and of forbearance. Regarding forbearance, an increasing majority of respondents to the EBA Risk Assessment Questionnaire, also compared to the December 2012 questionnaire, agrees that forbearance is practised and that its extent influences the level of impairment provisioning. There also is a general market view that forbearance is practised, particularly, in residential mortgages, commercial real estate, and real estate developer loans.

Figure 2 Debt forbearance across segments. Share of respondents replying Agree or Somewhat agree



Source: EBA Risk Assessment of the European Banking System, July 2013 (Risk Assessment Questionnaire)

In general, income and profitability of EU banks has continued to be depressed. Deteriorating asset quality, including impairments, significantly affects profitability levels. At the same time, net interest margins are compressed by elevated funding costs in a low interest rate environment, which are not being matched by a full re-pricing of assets. Challenges for profitability are expected to continue throughout 2013. EBA indicators also point to some deterioration of banks' ability to keep relative costs under control. Given the fact that average return on equity is decreasing and that banks need to provide a return to investors at or above their cost of equity, there are limited and less flexible choices at hand to meet minimum returns in a context of economic downturn and sector deleveraging. This also raises questions regarding the viability of some bank business models.

Despite improved overall funding conditions, as evidenced by debt issuances and deposit inflows from both retail and corporate customers, the sustainability of such conditions nevertheless remains a challenge, and banks remain susceptible to a sudden switch of sentiment. Financial markets remain in a fragile state and may in the current environment not reflect improved fundamentals, but rather an improved market sentiment only, coupled with a perceived reduction in the equity risk premium as a consequence of decisive policy measures in the wake of the funding crisis. A sustained improvement of funding conditions also needs to take into consideration the necessity to restore lasting access to market funding, in particular for banks domiciled in

⁵ EBA recommends supervisors to conduct asset quality reviews and adjusts the next EU-wide stress test timeline. See <http://www.eba.europa.eu/-/eba-recommends-supervisors-to-conduct-asset-quality-reviews-and-adjusts-the-next-eu-wide-stress-test-timeline>.

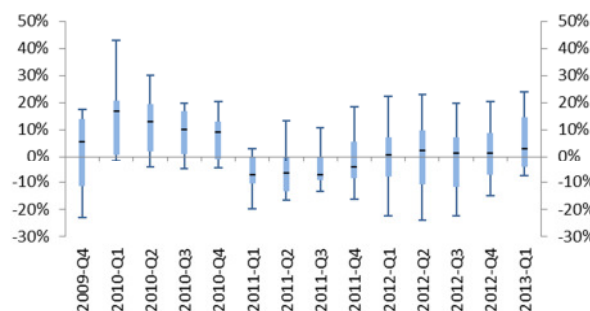
countries experiencing sovereign stress, and a move away from central bank support. As regards to deposits, some behavioural changes for deposits not covered by deposit guarantee schemes can also be expected, and heightened supervisory monitoring is warranted. In this context, implications of common European bank resolution and bail-in proposals on bank funding structures should be monitored as well.

With reference to consumer issues and reputational concerns, a number of detrimental business practises of European banks have raised vast public attention and affected consumer confidence. Supervisors and banks should turn their attention to increasing legal and reputational risks, as well as potential shortcomings in institutions' risk management functions and compliance procedures, and room for improvement on disclosures on this topic can be identified.

1.2 DECLINING PREMIUM GROWTH IN THE INSURANCE SECTOR

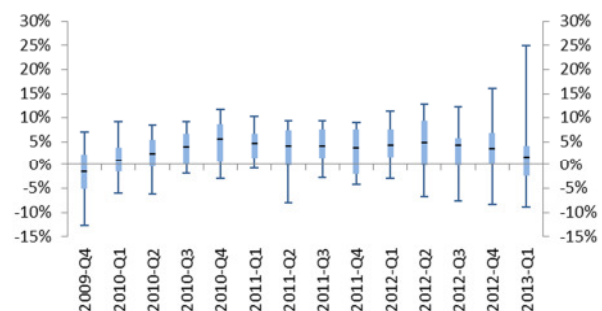
The weak macroeconomic environment continues to negatively influence market growth in the insurance sector and puts pressure on the sale of insurance policies. Premium growth in the life sector is still far below levels seen in earlier years. However, growth in premiums have picked up slightly among the lower percentiles over the last three quarters and data for the first quarter of 2013 indicate some relief across the sample of large European insurers (see Figure 3). This improvement in market growth potential is also reinforced by a reduction in lapse rates.

Figure 3 Year on year growth in gross written premiums – Life. Median and 10th and 90th percentile



Source: EIOPA. Sample based on 30 large insurers in EU and Switzerland

Figure 4 Year on year growth in gross written premiums – Non-Life. Median and 10th and 90th percentile



Source: EIOPA. Sample based on 30 large insurers in EU and Switzerland

In the non-life insurance sector, Figure 4 shows that year-on-year growth has remained positive. Some business lines of non-life insurance may be somewhat insulated from poor macroeconomic conditions due to the mandatory nature of many insurance purchases such as third-party liability. However, the difference between the best and the worst performers (indicated by the 10th and 90th percentile) is increasing. Moreover, it is likely that increasing unemployment and reduced net household income will decrease the demand for non-life products which are not mandatory.⁶ Indeed, data for the first quarter of 2013 shown in Figure 4 indicates a decline in premium growth in the non-life sector.

Solvency I ratios are generally adequate, and had improved for a majority of life insurers by the end of 2012, compared to a year earlier (the median solvency ratio was 222% compared to 186% a year earlier), partly following improved return on investments reflecting price increases in many financial markets. This naturally

⁶ Fraud may also increase in economic downturns.

helps creating buffers to weather economic pressures in the Eurozone or challenging financial market conditions. However, Solvency I ratios generally do not reflect the capital positions of insurers on a market value basis. Market valuation would most likely result in higher valuation of liabilities and possibly lower valuation of (parts of) the asset portfolio. The capital position of insurers would therefore be worse on a market value (i.e. Solvency II) basis. The report on the recently concluded long term guarantee impact assessment (LTGA) may give an indication of the scale of this difference (and illustrates the need for certain long term guarantee measures), but it is important to note that the impact assessment was based on end-2011 figures (financial market prices have improved thereafter) and employed a sample biased towards long term life business.

1.3 IMPLICATIONS FOR FINANCIAL MARKETS

Since March 2013 a further weakening in macroeconomic conditions and the reaffirmation of an extended low-interest rate environment continue to pose potential risks to market participants in securities markets. First, low returns generate incentives to engage in search-for-yield strategies, eventually increasing investor readiness to take on positions with elevated risk levels, and promote the acceptance of leverage. Second, liquidity on short-term markets, in particular on unsecured ones, is negatively affected by low interest rates, because potential buyers' appetites are rather subdued. This is also reflected in the increased issuance volumes for bonds with longer maturities and secured debt forms observed in early 2013. The latter effect generates an increased demand for collateral and the associated potential for a relative scarcity of collateral discussed in more detail in Section 4.

Third, prolonged macroeconomic weakness, low interest rates and the distinctive treatment of sovereign bonds in terms of risk weights may reinforce regulated firms' inclination to invest in sovereign bonds and (indirectly) the issuance of sovereign debt. This could imply potential valuation issues in sovereign bond prices, especially for markets exposed to severe public debt problems, but also for markets on which close substitutes are traded. Fourth, prolonged weak macroeconomic conditions associated with potential increases in unemployment rates have the potential to affect households' saving volumes negatively as already evidenced by increasing debt to gross disposable income ratios in the majority of EU member states.⁷ Hence, ultimately domestic retail funding sources would be reduced in the most troubled markets and negative impacts on assets prices and a higher dependence on international funding would be generated. All those effects would impact on the asset side of financial intermediaries' balance sheets, be it banks, insurers or other financial intermediaries. Thus, cross-sectoral feed-back effects would be highly probable.

1.4 FINANCIAL REGULATION AND ECONOMIC PERFORMANCE

The emerging regulatory landscape for banking, insurance and financial market participants in general creates a resilient framework for the EU financial sector. The final agreement and entry into force of the CRD IV and CRR was a positive step forward in reducing uncertainties and reinforcing market confidence in the EU banking sector and has provided some clarity on the technical details and implementation. A lot of progress is being made in establishing a Single Rulebook in banking, and the EBA is close to finalising number of standards linked to the new legislation. Despite some clarity on the technical details, significant implementation challenges nevertheless remain ahead. The numerous regulatory reforms still underway continue to be of concern for investors and other market participants in particular in regard to the timing and respective contents. Moreover, the need to re-establish economic growth has led to political pressures for encouragement of the supply of credit to the real economy, whether from banks, insurers or pension funds or via market-based

⁷ CF. ESRB Risk Dashboard, March 2013, p.12.

intermediation, and policy steps to promote efficient lending are being explored. For instance, due to their long-term liabilities, insurers and pension funds are seen as potential sources of finance for long-term investments.⁸ Similarly, concluding negotiations on MiFID2/MIFIR without any further delay would help to increase the transparency and the functioning of a wide range of securities markets and would thus generate positive impulses for economic growth and financial stability.

One phenomenon revealed by the 2008 financial crisis was the cross-sectoral interconnectedness and complexity resulting from the repackaging of various debt forms by means of securitization, financial engineering and similar techniques involving the change of risk characteristics along the way. Inadequate accounting, disclosure and prudential requirements hid the underlying financial and behavioural risks behind such complex intermediation. The crisis led to a loss of confidence in such financial intermediation, and consequent regulatory reforms to tighten up prudential and disclosure requirements to restore confidence in the financial system. However the commercial and political pressures for the financial sector to provide long-term financing to the real economy, while not overly exposing retail depositors, policy holders and retail investors to the risks inherent in the provision of long-term risk financing, are again increasing the incentives for firms to arbitrage around new regulatory requirements and increase complex cross-sectoral transformation of financial promises by engaging in the provision of e.g. complex securitised products or similar instruments.

Unless properly designed, initiatives to stimulate growth run the risk of diverting scarce funds away from their most productive uses, and not necessarily increasing aggregate demand in the economy. But, for the case of liquidity hoarding by financial market participants, additional demand stimuli can have potentially positive effects on expectations and investment plans. Nevertheless, making changes in light of a financial crisis runs the risk of a short term fix instead of a viable long term solution, and may lead to complacency and reduced commitment to structural reforms and the internationally agreed Financial Regulatory Reform agenda. Regulation should be designed in such a way that it does not generate any obstacles to growth, but encourages the consistent measurement and representation of risks across balance sheets. This would for instance imply that any recalibration of Solvency II capital requirements needs to be actuarially and economically sound. Moreover, any changes for one financial industry need to take account of developments in other sectors, so as to prevent regulatory arbitrage and maintain consistency across sectors. Finally, it is necessary to assess the actual detrimental factors to flows such as infrastructure investments and designing solutions that allow those with an appetite for certain risks to participate in the segment they consider appropriate.

2 RISKS FROM PROLONGED LOW INTEREST RATES

The current macro-economic down-turn has necessitated unprecedented policy responses from monetary authorities, generally lowering policy rates and expanding the range of monetary operations. Such operations include long-term liquidity provision to banks and asset purchases to lower long-term interest rates. The policies aim at stimulating the economy by extending credit supply and increasing demand, in addition to address short term financial stability risks. Indeed, in its Global Financial Stability Report published in April, the IMF finds that these policies have lessened vulnerabilities in the banking sector and contributed to financial stability in the short term.

⁸ EIOPA has published a discussion paper on standard formula design and calibration for certain long-term investments which is available on its website. See www.eiopa.europa.eu.

The policy responses have led to lower policy rates, and have also lowered the wider set of relevant interest rates such as corporate and sovereign bond rates in many countries (the Eurozone periphery being a widely known exception). As discussed in the previous Report on Risk and Vulnerabilities, on the one hand, low interest rates generally support banks by reducing funding costs and credit risk. On the other hand, low interest rates depress bank profitability by lowering net interest rate margins and reducing asset quality, while they also hurt insurers and pension funds by increasing the present value of liabilities (through low risk free rates) and depressing reinvestment returns. Moreover, low policy rates and low rates on low risk assets are results of an intensifying risk aversion, which on the other side of the risk spectrum tends to push risk spreads upwards, especially for liabilities on the funding side of the private sector held exclusively by the private sector, i.e. those assets which are not eligible to central bank programs.

However, recent events have shown that the challenge facing the industry and insurers in particular, is not only related to the possibility of rates remaining low for an extended period of time. Increasingly the focus of supervisors and industry is the risks of a sudden reversal of interest rates.

A reversal may be part of an expected exit-strategy by central banks. However, the recent volatility in global markets following signals from the Federal Reserve that it intends to limit its bond-buying program, illustrated that market reactions may still be strong. A reversal may also follow changes in market sentiment. For instance a sharp adjustment of yields on public debt could cause an adjustment in global interest rates with adverse implications for financial stability. Bank funding costs, in particular those located in countries perceived as safe-heavens could increase and banks, insurers and pension funds would be affected by portfolio revaluations and second-round effects.

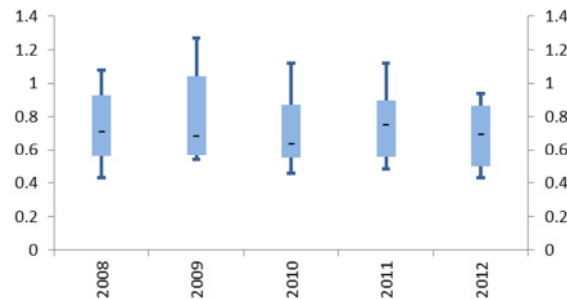
The combined challenge (of both low interest rates, but also of risks of sharp increases) is difficult to hedge. At a minimum, however, supervisors need to ensure that banks, insurers, pension funds and financial market participants fully recognise these risks and have sufficient capital buffers and/or hedges to withstand both a long period of low interest rates, a normalisation of yields in affected segments, and have appropriate mechanisms available to deal with short term volatility. The continued delay of Solvency II represents a challenge for achieving this in the insurance sector.

2.1 INSURANCE SOLVENCY PRESSURES

The impact of a prolonged low-interest environment depends on the prevailing relationship between interest rates, market yields and guaranteed returns, as well as the duration mismatch in the insurer's balance sheet and the composition of the balance sheet. Taken together, these factors generate a highly specific outcome for each insurer.

Overall, however, the business models most vulnerable to the impact of a prolonged period of low yields and low interest rates are those that are long-tailed and may include guaranteed returns or depend on investment returns to maintain profitability. This covers guaranteed life insurance business, defined benefit occupational pensions and some non-life business lines.

Figure 5 Life - Duration of bond portfolio (including derivatives) to Duration of technical provisions - Annual



Source: EIOPA. Sample based on 30 large insurers in EU and Switzerland

The precise timing of when the effects of a prolonged low interest rate environment would manifest themselves on insurers' balance sheets and solvency position depends on the accounting and solvency methodology in use, as well as the business lines being written (the issue of balance sheet and solvency valuation is discussed in more detail in Section 5). If market value is in use, the impact is observed very rapidly since any decline in benchmark interest rates is reflected in the discount rate applied to liabilities. This effect is amplified where the duration of liabilities is greater than that of assets, which is the normal state for large life insurance entities in the EU – see Figure 5. The outcome is that available net assets to cover solvency would be eroded by a fall in interest rates because the present value of liabilities would increase more than that of assets.

Box: How low interest rates affect insurance companies

The effects of low interest rates/yields can be broken down into three specific elements: cashflow effects, reinvestment effects and effects on the valuation of assets and liabilities.

Cashflow effects stem from yield spread compression, as new premiums and maturing investment returns are reinvested at lower yields relative to the yields that insurers have committed to pay. In short, if business generating guaranteed outflows is being supported by investment returns then the available margin on this business is gradually eroded by a low yield environment if no action is taken to alter the underlying position. A prolonged period of low interest rates may also have an adverse impact on non-life insurers pursuing a business model where investment returns are used to compensate for weak underwriting results. Non-life insurers may also be affected in a situation where low yields do not provide sufficient returns to counteract the effects of inflation on longer tailed business.

A corollary to the cashflow effect is the *reinvestment risk* that arises in a low yield environment. Not only are maturing investments reinvested in lower yielding assets, but there is now exposure to adverse changes in asset values if market yields rise suddenly. In recent months, there has been a narrowing of spreads over risk-free rates on a range of assets that previous displayed high spreads. This change in risk perception could be reversed suddenly and is a risk that has been highlighted in a number of recent financial stability commentaries.

Finally, *valuation effects* stem from the adverse effect of a low yield environment on the present valuation of assets and liabilities. The manifestation of this effect on the balance sheet depends on the valuation methodology in use.

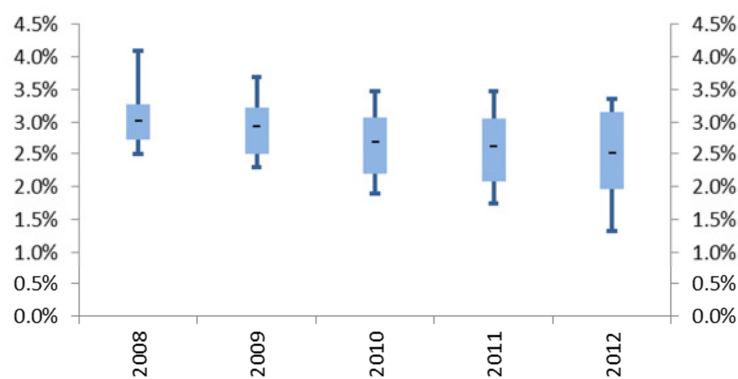
If historic cost accounting is used, the impact on an insurer’s balance sheet appears more slowly since it emerges through lower profits or higher losses that are ultimately taken to the balance sheet (the issue of balance sheet valuation is discussed more in detail in Section 5). Thus, the potential impact on an insurer of a prolonged low interest rate environment would take longer to be identified. In life insurance, guaranteed business is the most exposed to a prolonged period of low interest rates since there may be a “yield spread compression”. In this case, as assets are (re)invested the achievable spread between returns on assets and guaranteed rates shrinks. This reinvestment risk is the primary means by which the impact of low interest rates affects the financial position of firms in a historic cost accounting environment.

National supervisory authorities have started to take action to address this risk and some individual firms have taken action in terms of product design and market strategy. There is a need, however, to take more coordinated action and EIOPA has taken a key step in this direction with its recently published Opinion.⁹

EIOPA’s initiative embodies a comprehensive assessment of the scope and scale of the challenges/risks arising from low interest rates in the respective jurisdiction and enhanced monitoring of, and supervisory engagement with, firms deemed to be more exposed to this risk. It also calls for supervisors to establish a clear escalation procedure of supervisory action related to the most exposed entities and to challenge “unsustainable” business models. National supervisory authorities considering taking market-wide measures or supervisory action should notify EIOPA and other supervisory authorities in order to support coordination among supervisory authorities.

In the insurance industry, there is a tendency towards reshaping or lowering the guarantees offered to new policy-holders. However, the effects on the average guaranteed interest rates in the portfolio of insurers will only materialize over a longer time period because of the large share of existing policies. Evidence of this gradual lowering of average guaranteed rates in the life business is shown in Figure 6.

Figure 6 Life - Guaranteed interest rates in life insurance, average weighted by technical provisions, in % - Annual. Median, interquartile range and 10th and 90th percentile



Source: EIOPA. Sample based on 30 large insurance groups in EU and Switzerland

Insurers could also aim to redesign their product portfolio. This would involve a move towards products that are less risky for the insurers in the current market conditions (e.g. unit-linked products, in which the risk

⁹ See <https://eiopa.europa.eu/publications/eiopa-opinions/index.html>

is shifted to the policyholder) and the discontinuation of selling new rigidly guaranteed products. While the selling of guaranteed products continues in many countries, the features of the products are often adjusted to limit the risk to the insurer. In particular, annually adjusted minimum rates of return are increasingly marketed. However, as such strategies generally increase the variability in investment returns for policy holders, there is a risk that consumers consider the products less attractive and less distinguishable from ordinary money market funds.

2.2 BANKING SECTOR: MARGIN PRESSURES AND CREDITOR FORBEARANCE

On the asset side, the protracted low interest-rate environment together with a low average asset quality significantly contributes to reduced profitability of European banks and contributes to pressures on interest margins. At the same time, due to asymmetries in the access to cheap central bank liquidity, funding costs for many banks continue to be high, resulting in massive spreads on bank funding outside of central bank facilities, which can often not be matched by a full re-pricing of assets. In addition, the weak economic environment also provides for limited new lending opportunities and interest income generation opportunities, and there is stiff competition for the fewer opportunities to extend quality credits. Given the fact that customers' capacity to bear higher lending rates is affected by the economic downturn, banks attempts to increase lending rates may prove either not successful at all or insufficient to address increases in funding costs. Prolonged low interest rates also incentivise debt forbearance and continue to contribute to delays in balance sheet repairs and to a slower pace of deleveraging. They furthermore incentivise search for yield behaviour and may push banks into higher risk business, and may move deposits into higher yielding products and segments (e.g. in the shadow banking sector).

The lengthy period of low rates also poses risks of a sudden increase, and markets have begun to anticipate rising rates in the medium term. Increases would have significant implications for asset quality and likely trigger a short-term deterioration of quality of assets as it would adversely affect the ability of borrowers to repay loans. Supervisors and banks need to be conscious of the different consequences of both low interest rates and of a sudden increase, and should not be complacent in light of a continuation of the current low interest rate environment. Supervisors need to ensure that banks fully recognise and manage the risks of a prolonged low interest rates period, but also of any potentially sharp adjustment to interest rates.

2.3 FINANCIAL MARKETS: SEARCH FOR YIELD BEHAVIOUR

Due to the persistent low- interest rate environment portfolio return expectations of many market participants remain significantly above current risk-free interest rates, whether, similar to the insurance industry, driven by contractual liabilities or by stakeholder expectations. Low interest rates incentivize market participants to seek higher yields in various ways, including investing in less liquid assets and taking risks with off-balance sheet investment vehicles. However, recent regulatory measures contributed to a successful moderation of the latter incentive as demonstrated by stable or falling leverage ratios in the fund industry, slight reductions in the volume of OTC derivative markets in general and in the volume of sovereign credit default swaps in particular.¹⁰

After the strong 2012 rallies of financial markets in the wake of the ECB's support to markets, financial markets developed still positive, but less dynamic in early 2013. While sovereign and corporate bond yields in both advanced and emerging economies still continued to narrow, some market fluctuations could be observed especially in the EU in the first quarter of 2013. Spreads stabilized throughout this period and remained

¹⁰ ESMA (2013): The Short Selling Regulation in hindsight, in Report on Trends, Risks and Vulnerabilities, No. 2013, p.35ff. (forthcoming)

afterwards close to long-term historical averages. However, recent reverberations demonstrated that investors are quick to reassess credit risks. Thus, given the potential increase of defaults against the backdrop of the weak macro-economic outlook, the risks for sudden changes in the yield structure remain present. Concerns linger on that low, and in some cases even negative, nominal yields for sovereign bonds might not reflect fair values, but might stem from risk aversion and the price effects of the related search for yield and therefore not fully reflect the weak growth outlook for issuing countries. Similar fears about a potential decoupling of investment flows and fundamentals are also voiced concerning the still solid performance of equity markets, especially outside the EU. Given weak macroeconomic and fiscal prospects both developments imply revaluation risks for sovereign bond and equity markets as well as risks stemming from associated consequences for balance sheets and solvencies of borrowers. As evidenced by increased issuance volumes in the markets for high-yield bonds and decreases in corporate risk spreads, market improvements have also supported the upper end of the credit spectrum. However, the risk remains that these effects resulted purely from a revival of investor risk appetite due to the further extension of low risk free rates by recent policy actions. Hence, the risks associated with sudden reallocations in case of an increase in risk free reference rates remain. In June 2013, market uncertainties, especially from emerging markets, demonstrated this risk, as growing market expectations for changes in yield curve slopes resulted in portfolio adjustments and in increasing risks spreads on bond markets.

So far, the search-for-yield is mainly a phenomenon in wholesale markets, and has not reached retail markets. This is also reflected in relatively low rate of returns on representative retail investor portfolios in Europe. In particular, some structured retail products offered rates of returns below the risk free interest rate. Accordingly, sales volumes of those products decreased in terms of market capitalization since 2007 from EUR 250bn to EUR 110bn in 2012. Nevertheless, the number of structured products sold increased while the maturity decreased over the last few years. In particular, also the share of capital protected products experienced a rapid growth between 2011 and 2012.¹¹ Retail investors may well be aware of hidden risks and remain conservative or at least risk averse about this asset class, while low interest rates did prevent financial institutions from offering compelling products.

In the recent past, low interest rates have been accompanied by rising debt levels of EU households. Recalling recent market sentiments concerning movements in the slope of the yield curve, increases in interest rates are likely to trigger further deteriorations in households' financial positions through declining prices in equity and bond markets and rising costs of mortgage loans, if not accompanied by an improvement in economic conditions. The associated negative demand effects would contribute to macroeconomic risks, while the asset quality of mortgage lenders would be affected directly through a higher proportion of nonperforming loans.

Market volatility indices, which have become a tradable asset class, continued to narrow in the equity segment in the first half of 2013. This had the effect of reducing value-at-risk (VaR) measures and capital requirements for some trading book activities, and lowering the costs of the acceptance of additional risks. However, the effects were reversed later on, since the volatility started to increase again in equity markets towards the end of the second quarter of 2013. Similarly, implied volatilities on short and long term interest rates experienced increases, especially at the shorter end, and remain well above their long term benchmarks.¹² Apparently VaR risk measures in bond markets continue to be elevated and the needs for liquidity buffers remain substantial. In addition, historical time series for equity volatility indices are characterized by prolonged declines punctuated by sharp jumps in volatility. An eventual future occurrence of such volatility jumps would sharply

¹¹ All data taken from ESMA (2013): Economic Report, Retailisation in the EU, p.15-23.

¹² ESRB Risk Dashboard March 2013, p.25.

increase VaR measures and capital requirements, which could trigger and reinforce negative market dynamics from forced selling by VaR- or capital-constrained market participants, risk-sensitive margin and collateral requirements – a phenomenon known as VaR shocks. Hence both, equity and bond markets, still display high levels of risk stemming from volatility, especially as recently valuation concerns in equity markets reemerged.

3 RISKS OF FURTHER FRAGMENTATION OF THE SINGLE MARKET

The European financial sector remains to appear fragmented with regard to cross-border banking activity. There has been evidence of a material and still on-going scale back of intra-EU cross-border lending into economies experiencing sovereign stress or recession, and evidence suggests that lending rates for loans extended to comparable real-economy firms differ significantly according to the firms' country of domicile. Such increased cross-country dispersion of lending rates has substantially weakened capital allocation. Consequently, firms face increasingly different credit supply and pricing conditions according to their domicile and irrespective of their own profitability and risk, leading to capital being more expensive for firms in specific countries. Therefore, one imminent consequence of market fragmentation has been a shortage of new lending to SMEs, which in many European countries are the main engine for economic growth. Decreasing SME lending can sometimes be ascribed to a lack of demand and to increasing risk profiles of some SMEs, but is also seen as an indication of some form of market dysfunction.

There has also been increased fragmentation with regard to bank funding conditions, as access to and cost of market funding increasingly differs between banks in perceived strong sovereigns and in sovereigns experiencing stress, and challenges for banks to return to viable sources of market funding remain particularly in countries experiencing sovereign stress. Interbank markets continue to be very subdued and remain to a high extent confined to national boundaries, also contributing to a continuing dependency of some banks on the central banks liquidity providing operations.

Banks have also further reduced their external funding to countries in Central and Eastern Europe (CEE).¹³ Risks of further fragmentation of the single market were furthermore evident through the increasing national retrenchment of asset and liabilities, including efforts to match assets and liabilities at a national level, home-bias, and reduced cross-border financial activities. While this trend was mainly driven by banks' revised business strategies, changes in risk appetites, higher funding costs, and the challenging macro environment, it was also exacerbated by uncoordinated national policy measures, including ring-fencing of local bank capital and liquidity. Such evidences of fragmentation and retrenchment have been hindering the free movement of capital and funding, have increased funding costs, and signal supervisory divergence.

Recent qualitative information available to EIOPA indicates that the financial and sovereign debt crisis led insurers to increase the domestic bias in their asset portfolios. Insurers in peripheral countries may have increased their holding of debt offering a higher return (such as own sovereign debt). Such a tendency could be motivated by a search for yield, but could also be due to the fact that these assets are used to back domestic liabilities. Insurers in core countries also seem to increase the domestic bias, forgoing the additional yield which could have been achieved by investing in periphery bonds, possibly providing some evidence in favour of the latter if considered on an industry-wide scale.

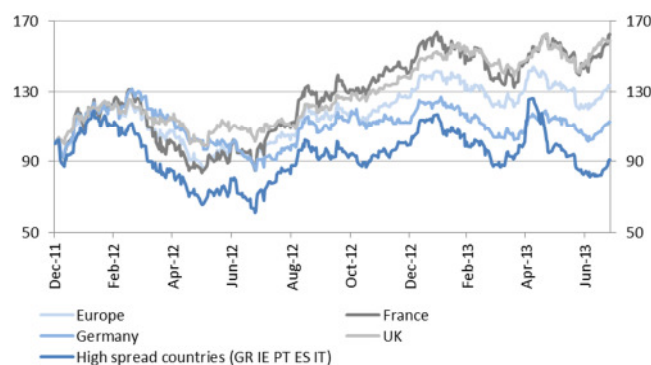
¹³Central, Eastern and South Eastern deleveraging monitor
http://vienna-initiative.com/wp-content/uploads/2013/07/Deleveraging_Monitor_07-26-13.pdf

3.1 INCREASED CLUSTERING OF FINANCIAL MARKETS

Financial markets within the EU continued to display since late 2012 signs of fragmentation or rather clustering of markets. In sovereign bond markets this development appeared as a formation of two main clusters and was driven by a realignment of investors' risk assessments.¹⁴ Manifestations of clustering could be observed in an increasing dispersion of EU equity indices, a continuing high dispersion in the yields on EU sovereign bonds, and the separation of corporate bond markets from other segments. In early 2013, the market for sovereign bonds displayed a temporary declustering, as the dispersion of yield narrowed and the composition of the two mentioned groups became less stable.

In detail, the general upward trend in equity indices did not comprise all EU countries. At least one smaller country experienced a further decline in its equity index thereby increasing the dispersion of equity market indices. But even within the subgroup of countries experiencing an improving performance of equity markets a substantial degree of dispersion persisted. In particular, the increase in dispersion characterized the situation of the European banking sectors (see Figure 7).

Figure 7 Performance of national bank equity indices normalized to 01 January 2012.



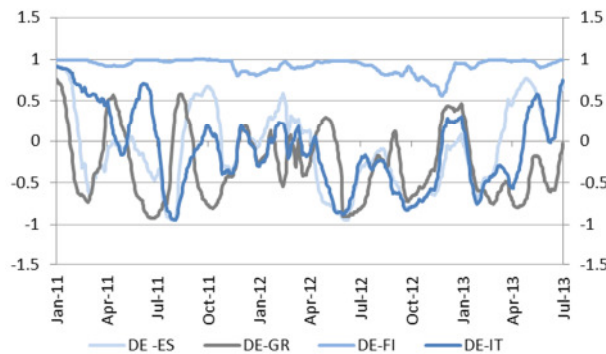
Source: Thomson Reuters Datastream, ESMA.

On sovereign bond markets, the yields for the majority of the EU countries fell since January 2013, but in general the speed of the decrease has been reduced compared to the six months before. Still, sovereign bond yields for several member states remain on an elevated level and reflect a considerable amount of heterogeneity across EU members. This impression is also confirmed by correlations between sovereign bond yields of EU member states. In particular, from April 2012 onwards, a group of countries comprising distressed economies separated from the less distressed members (see Figure 8). This first group is characterized by a high correlation to members of the same group, but volatile and decreasing correlations with members of the second group. This trend was interrupted in April 2013 by a temporary declustering of markets. However, clustering resumed in May 2013 signalling persistence in the investor awareness of idiosyncratic country risks. The development of sovereign bond yield volatilities reflects the medium-run evidence by displaying a split structure with a group of distressed countries characterized by high volatilities and a group of less distressed countries featuring substantially lower volatilities. However, the increase in the volatility observed since February 2013 supports the short-run evidence as well. Similarly, the difference in the maturities of new debt issued by sovereigns in the first quarter of 2013 between distressed and non-distressed markets provides

¹⁴ Such clustering is not in itself a cause for concern as markets should differentiate between risk and markets in different regions are expected to have idiosyncratic characteristics.

additional evidence for a clustering of markets, as sovereigns of distressed markets issued new debt with an average maturity more than three years lower than the average maturity of issues by non-distressed sovereigns. Liquidity indicators deliver additional evidence for the increasing heterogeneity of sovereign bond markets throughout the EU by featuring a persistently high level of dispersion of bid-ask spreads between selected markets.

Figure 8 Correlations over 60D rolling windows of 10Y sovereign bond redemption yields, selected countries in the EU.



Source: Thomson Reuters Datastream, ESMA.

The high heterogeneity in EU sovereign bond markets is also reflected by the development of rating decisions for newly issued sovereign debt in which downgrades continued to dominate throughout 2012, both in terms of numbers and terms of average notch changes.

Different types and degrees of clustering could be observed in additional market segments. The markets for corporate bonds, and in particular bonds issued by financial corporates, continued to display elevated spreads compared to general EU bond indices. In the hedge fund sector, the difference between macroeconomic fundamentals and developments of securities markets is reflected in the widening gap of the short-run performance of different investment strategies. On the other hand, the EU UCITS industry experienced a decline in the degree of fragmentation as evidenced by a declining dispersion in the industry's excess returns.

While geographic market clustering is a cause for concern from a single market perspective, it also mitigates contagion risk as investors are increasingly using diverging risk levels to differentiate between different categories of sovereign debt in Europe. However, contagion risks remain high within the group of countries exposed to sovereign debt problems, and temporarily negative correlation patterns between distressed and non-distressed European sovereign debt markets indicate that investors are treating the two types of sovereign debt as substitutes in their portfolios. Consequently, the change in risk perception which drives this particular development in bond markets also renders the issuance of new debt by sovereign issuers under distress more demanding. The associated maturity reduction preserves this market pressure which currently generates sizeable sovereign spreads, for the near future. Given the current environment in which policy measures concentrate on the stabilization of distressed EU sovereigns, markets anticipate the materialization of changes in the low interest rate environment, and weak macroeconomic growth adds to fiscal pressure, the risks of sudden price corrections for sovereign bonds remain high in distressed markets. In particular, this shows up in the increasing slope of distressed markets' term structures. As far as sovereign debt serves as a benchmark in debt pricing, interest rate risks spill over from national debt markets to the private sector. Resulting balance sheet problems show finally up in equity markets. Nevertheless, market reactions prone to

reflect more on idiosyncratic features of individual borrowers should still be welcome as they tend to increase the general health of the financial system.

From a cross-sectoral perspective, the simultaneity between the increasing dispersion in the markets for equity, particularly for the equity of banks, for sovereign debt and in between sovereign and corporate debt markets documents the risk of feed-back loops between sovereign debt problems and balance sheets of domestic private institutions. In so far as domestic banks are the main purchasers of sovereign debt, while sovereigns have to bail out endangered banking systems, any negative events in one of the two subsystems implies negative contagion effects for the other. In addition, any problem in domestic banking sectors will also be spread to the entire private sector, as corporates try to substitute missing bank credit by the issuance of new debt. Hence, feed-back effects have the potential to create a self-reinforcing persistence of the underlying problems by directly feeding back into the availability of funding for the production sector. In addition, the level of systemic stress can also be seen in the increased dispersion of rates of returns or interest rates throughout financial market segments and in between financial market segments.

The combination of historically low, but dispersed yields of financial assets delivers further incentives for the search-for-yield behaviour discussed in Section 2.3. This behaviour potentially goes along with erroneous risk assessments as investors approach exotic and less transparent financial products in order to generate higher rates of returns, or concentrate their investments in safe haven products, thereby increasing liquidity and funding risks in distressed market segments and market risks in the safe haven markets. Both reactions tend to increase aggregate risk levels as long as they are accompanied by inappropriate risk assessments due to herding behaviour or asymmetric information.

3.2 ESA'S RESPONSE TO REVERSE THE TREND OF FRAGMENTATION

The three ESAs, the EU institutions and member states need to work together to reverse the harmful trends of fragmentation of the EU Single Market. A range of initiatives will be relevant, especially in the Eurozone, including the SSM, which will be instrumental in weakening the adverse bank-sovereign link. The SSM should be implemented without delay, and should be followed by a sound bank resolution mechanism.¹⁵

In April 2013, the Permanent Representatives Committee (Council of the European Union) approved a compromise agreed with the European Parliament on the establishment of a SSM for the oversight of credit institutions. The SSM, coupled with other measures to drive further integration – such as the European Stability Mechanism (ESM), common bank resolution schemes and the Single Resolution Mechanism (SRM) will be instrumental in weakening the adverse bank-sovereign link and a major step to promote the unity and integrity of the EU Single Market.

Simultaneously, it is necessary to foster supervisory convergence through a strong role in supervisory colleges. The ESAs' engagement in colleges of supervisors helps to ensure that supervisory measures are properly discussed and coordinated ex-ante throughout the entire single market, and that colleges take potential unintended consequences into full account in their joint assessments and decisions on institution-specific prudential requirements. It ensures achieving effective convergence in supervisory practises within the EU as a whole. Within supervisory colleges the EBA has so far conducted major efforts, through formal and informal mediation, and also via investigations on breaches of EU law, to push forward stronger cooperation.

¹⁵ EU Commission press release on the banking union from 12 September 2012: Commission proposal for a regulation establishing a Single Resolution Mechanism from 10 July 2013.

With regard to the banking sector it is also important to foster supervisory convergence through the development of both the EU-wide Single Rulebook and Supervisory Handbooks. Supervisory Handbooks will be based on good supervisory practice and will provide common reference points to decide on the application of supervisory measures. The ECB and all the national authorities joining the SSM will conduct their supervisory tasks according to a common manual. The task to develop a Single Supervisory Handbook for the banking sector for the whole EU, attributed to the EBA, recognises the importance that key practices detailed in the manual are truly common across the Single Market.

Moreover, the development of the EU-wide single rulebook should set the right signal for a long-term comprehensive regulatory framework. Such a framework would set a level playing field and foster stability of the financial sector as well as overall confidence in EU financial markets. It should build on the efforts and progresses made so far by the ESAs towards this objective. Since March 2013, primary legislations, including CRD IV/CRR, EMIR, AIFMD, EuVECA¹⁶, SSR, CRA3 and the amendment of the Prospectus Directive, as well as technical standards and guidelines, e.g. for AIFMD, EMIR, UCITS, CSD, MiFiD and CRA2, mark significant progress towards a single rule book. In particular, EU wide fund rules, promotion of timely and high quality credit ratings, improved information requirements and uniform treatment of assets contribute to the integrity of the single market. Further measures to promote the single rulebook are planned in the areas of market abuse (MAD/MAR), the transparency of investment products, the enforcement for financial information and the work towards MiFiD2.

The observed fragmentation is sometimes assessed differently from a European and a purely national perspective and may therefore create in the short term a potential for different consideration among host and home authorities. However, within an internal market, where no artificial barriers to trade or capital flows should exist, financial stability is assessed on a system-wide basis. The shared competence of the Union and Member States for the internal market and the advanced integration of financial markets as well as the cross-border dimension of financial stability should be reflected in national mandates for prudential supervision and financial stability and call for close cooperation between both national and European authorities.

However, in practice, the primary concern of national supervisors, based on national mandates for financial stability (and for guarantee schemes), generally concern the stability of financial institutions that are located domestically. An example of could be where there is a non-negligible threat of capital outflow and host national authorities initiate steps to prevent it. In order to address system-wide threats to financial stability, it is of key importance that such actions are coordinated ex-ante among all relevant national and European authorities in order to reduce the risk of a situation where a series of unilateral national policies leads to an outcome in which all are worse off. Such situations can only be overcome through coordination. Within participating Member States, the SSM provides significant opportunities in this respect.

As noted in the previous cross sectoral risk report, the present solvency rules (Solvency I) for the insurance sector are outdated and are in many cases superseded by industry, international and cross-sectoral developments. Solvency II will provide a harmonized and risk-based framework for supervision in the insurance sector. However, in the absence of a final agreement on Solvency II, there is a risk that European supervisors may be forced to develop national solutions in order to ensure sound risk sensitive supervision. Instead of reaching consistent and convergent supervision in the EU, different national solutions may emerge. The implementation of Solvency II is therefore of key importance to avoid unnecessary fragmentation and to

¹⁶ Acronym for the Regulation No. 345/2013 of the European Parliament and of the Council of 17 April 2013 on European venture capital funds.

ensure the good functioning of the internal market. The Preparatory Guidelines developed by EIOPA are an important step to avoid this fragmentation, but the continued delay of Solvency II remains a source of uncertainty. The recently concluded impact assessment (long term guarantee impact assessment - LTGA) carried out by EIOPA in cooperation with national authorities assesses a series of potential measures aimed at ensuring an appropriate supervisory treatment of long-term guarantee products, also under volatile market conditions. The report reaffirms the need for certain long term guarantee measures and presents a series of outputs which should provide EU political institutions with a reliable basis for an informed decision on the long-term guarantee measures and a conclusion on the Omnibus II negotiations.

3.3 BAIL-IN AND SPILL-OVERS

The financial crisis weakened many financial institutions, some fatally. Still others were thought too critical to the functioning of the capital markets to fail and were awarded public funding to remain solvent. During the crisis regulators seeking to avoid widespread financial disruption had few if any tools available short of using public funds to support failing institutions. To avoid a repeat of 'moral hazards' linked to taxpayers guaranteeing the debts of institutions deemed 'too big to fail', various reform initiatives have begun to expand resolution powers and to encourage market based protections, among the latter also bail-inable debt forms.

Bail-in refers to the decision by the authorities to order the write down of unsecured debt and/or its conversion into equity so as to provide immediate recapitalization relief. When an institution has reached a "point of non-viability" (PONV), the authorities may force the recapitalization of the institution either through the conversion of non-equity regulatory capital instruments, i.e. bail-in securities falling under regulatory oversight and covered by statutory powers, to equity or through their write down. Alternatively, contractual contingent capital instruments, similar to non-equity regulatory capital instruments, have write-off or conversion features that require creditor-financed recapitalization. However, contingent capital securities, such as contingent convertibles or 'CoCos', are private financial contracts with principal and scheduled coupon payments that can be halted when a predetermined trigger event occurs. Still, the issuance of such instruments can be mandated by regulators. In particular, non-mandated contingent capital instruments contain early/high automatic triggers allowing the issuer to convert the issue to equity/or write down the issue to provide capital injection and debt relief. The trigger is set at a point when the institution remains a 'going concern' entity and has not reached a PONV. The trigger point for their mandated counterparts is normally set at lower level. Thus, while the securities' trigger points are set at different levels, both instrument types, i.e. non-equity regulatory capital instruments and CoCos, provide the issuer with a capital cushion and serve to mitigate the need to rely upon public funding. Finally, senior unsecured debt in general would also be bail-inable in case the funds obtained from both other mentioned capital buffers prove to be insufficient, even if this option is not contractually specified.

The exact supply and demand forces for these securities are not yet known as the regulatory legislation driving their creation has not been finalized. The development of a hybrid security market, bail-in or contingent, statutory or contractual, appears inevitable. Both regulators and market participants realize that the status quo of taxpayer based financing of strategically necessary bankrupt financial institutions is untenable. Hence, bail-in securities and CoCos have the potential to become a material asset class. However, exactly how wide and deep the market becomes from the standpoint of investors will depend heavily on the clarity of the underlying terms and conditions including triggers, haircuts and conversion levels and the priority of claims. These conditions will also depend on the implementation of mechanisms such as bank resolution frameworks, deposit guarantee schemes and the resolution mechanism for systemic insurance companies. It is in the interest of issuers, investors and regulators that the conditions for all these resolution tools are determined in

a timely and transparent manner. Any undue delay or lack of transparency within this process is likely to contribute significantly to contagion and cross-sectoral risks.

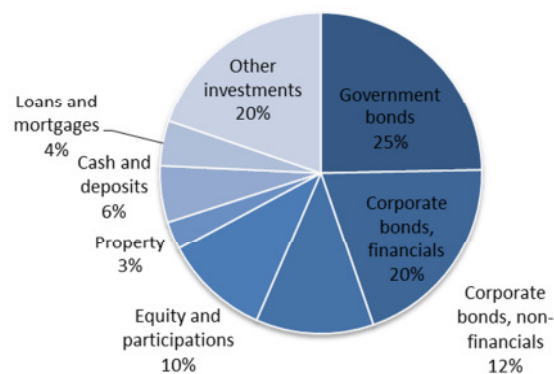
Events from March surrounding Cyprus have expedited the emergence of a new Resolution and Recovery regime for financial institutions. Rising uncertainties on possible bank bail-in following March events and some market uncertainties of forthcoming proposals for the Resolution- and Recovery Directive have nevertheless affected unsecured bank funding and its pricing, as will be discussed in more detail below.

Spill-over to other parts of the financial sector

Credit risk arising from the banking sector is an important source of risks to the insurance sector identified in an EIOPA survey published in the Spring Financial Stability Report¹⁷. Although these risks have been reduced with lower CDS spreads on financial bonds on average, a sudden reversal in spread narrowing cannot be ruled out.

Due to the large share of investments held in sovereign and financial bonds, any materialisation of this risk will have large impacts. Figure 9 shows that large European insurers are estimated to hold 20 per cent of their investment portfolio in bonds issued by financial institutions. Cash and deposits accounted for 6 per cent of the investments in early 2013, of which two thirds are estimated to be in deposits¹⁸. This means that the total exposure to the banking sector for large European insurers is 25% of their investments. In the pension fund sector, the exposures are generally somewhat smaller. National authorities that were able to report the split of assets in their jurisdiction for 2012 reported that pension funds on average held 11% of their portfolio in financial bonds. Overall, ECB reports that insurers and pension funds hold around 13% of all euro area bank debt. Insurers and pension funds, as institutional investors, have to manage this credit risk and carefully assess how the assets they hold match the liabilities on the balance sheet. Although the bonds generate the expected cashflow patterns that help to match the expected outflows on liabilities, credit risks need to be managed.

Figure 9 Average composition of the investment portfolio of large European insurers. January 2013.



Source: EIOPA. Sample based on 30 large insurers in EU and Switzerland

¹⁷ See <https://eiopa.europa.eu/publications/financial-stability/index.html>

¹⁸ EIOPA data published on <https://eiopa.europa.eu/publications/financial-stability/index.html> for the whole European insurance sector indicates that both life and non-life companies hold 4% of their investments as deposits.

The recent debate has led to the expectation that bail-in-able debt will constitute a larger part of bank funding in the future. If banks hold a sufficiently large layer of bail-in-able debt that is clearly defined, and investors understand the eventual treatment in case of resolution, the benefits would be improved loss absorptive capacity, increased transparency about the hierarchy of debt and possibly more accurate pricing of different debt instruments issued by banks.

If at least parts of this debt are held in other sectors, it would limit the interconnectedness within the banking system and increase the likelihood that the authorities are eventually able to apply the bail-in requirements. However, it would also increase interconnectedness with other parts of the financial sector as institutional investors such as insurers and investment and alternative funds, in particular also money market funds, seem often to be seen as potential buyers. The extent to which the insurance sector will actually hold such instruments, however, will naturally depend on pricing and the risk appetite of individual insurers. Although Solvency II does not directly foresee any quantitative limits on holdings of this debt, supervisors will likely be cautious of the new risks these instruments introduce. Moreover, from an insurance supervision perspective, these instruments raise classification questions since they do not behave like “normal” bonds and could be written down in a manner more analogous to equity. It would therefore not be straightforward to calculate capital requirements for these instruments and calibration will be difficult without any form of back data. As insurance is a liability-driven business, it is also unclear how these instruments should be seen in terms of asset-liability matching. Another important issue is how the use of these instruments would alter the interconnections between the insurance and banking sectors as they would generate a much more automatic pass through of banking problems to insurance.

In future similar problems may arise in the field of CCPs, since procedures in case of a CCP distress (recapitalization, bail-in procedures) remain at the current juncture still unclear. Harmonised resolution and recovery regimes for CCPs across the EU would help avoiding potential regulatory arbitrage and thus preventing customer and taxpayer detriment.

The bail-in of uninsured depositors in Cyprus

The events in Cyprus in March 2013 illustrated that the liability structure of the affected institution would be important in determining which financial instruments would face losses within a resolution process. Cypriot banks had a very large deposit base and only a minor fraction of their liabilities were in the form of bonds. As losses therefore were introduced directly on uninsured deposits, it illustrated that investors need to carry out credit assessments not only on (financial) investments, but also on main banking counterparts used for shorter-term deposits.

Following the resolution and winding-down of the two largest banks in Cyprus in March 2013, both domestic insurers and pension funds took losses on deposits similar to other large depositors (in the case of pension funds, the political issue of post write-down reimbursement is still open). Had the foreign-owned insurance sector in Cyprus been larger, it would also have been possible that losses by domestic solo companies could have affected the solvency position of groups. However, in the case of Cyprus, such effects were minimal.

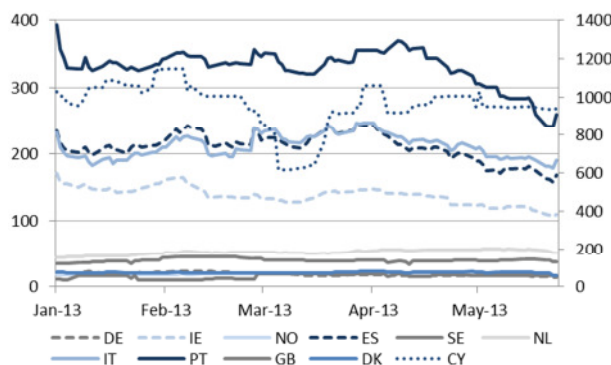
Moreover, the bail-in of depositors in Cyprus also identified issues related to how policy holders are affected. As policy holders take part in collective arrangements such as retirement plans or unit linked products, pooled deposits by the insurer far exceed the guaranteed level by any deposit guarantee scheme. At the same time, the effective deposit by any individual would in many cases be below the level guaranteed by deposit insurance. Therefore, when no look-through is applied, losses will be imposed on the account of the insurer, but in effect be borne at least partly by individual policy holders. While the actual impact on policy holders will vary by business line (in some cases losses will be borne first by the insurer), policy holders of unit linked

products – which in many countries are sold as simple savings products – would generally end up with the full loss.

While events in Cyprus led to a heightened attention to bank deposits, they have to date not materially affected deposits flows. Nevertheless, some behavioural changes could be expected for deposits not covered by deposit guarantee schemes, and heightened supervisory attention is warranted.

The bailing in of creditors in Cyprus impacted on financial markets mainly through two effects arising in the area of the CDS markets. First, CDS spreads on Cypriot sovereign bonds reacted on the announcement of the Eurogroup that a levy on all deposits would be imposed with substantial increases, e.g. the five years CDS spread increased by 290 basis points, from 630 bps to 920 bps (Figure 10). Due to fairly low gross (net)notional volumes of USD 2.03bn (USD 282mn) outstanding in Cypriot sovereign CDS markets, the Cypriot events were nevertheless perceived as an isolated event and other EU sovereign CDS markets hardly reacted to the Cypriot market fluctuations (Figure 10). However, due to the high concentration of CDS volumes on sovereign bonds, similar events occurring to sovereigns associated with high exposures outstanding in CDS markets could result in substantial contagion effects.

Figure 10 5 year senior CDS spreads. Cyprus on the right axis, others on the left axis

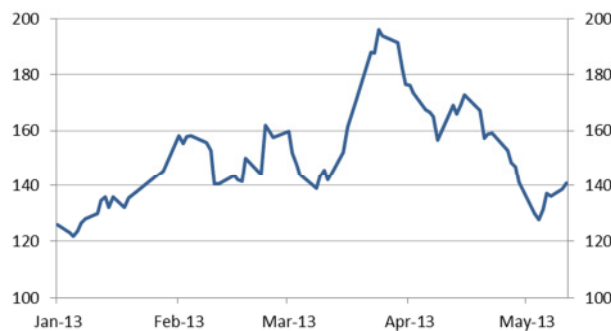


Source: Thomson Reuters Datastream ESMA.

The second effect on financial markets stems from the very nature of “bailing-in” which implies that senior bank bond holders are exposed to the risk of suffering substantial losses in the recapitalisation stage of such procedures, if markets did not perfectly price in the underlying risk factors leading to the bail-in. In line with the expectation that exactly this would occur, the spreads on senior European banks CDS increased sharply during the Cypriot bail-in process. Since high correlation in marginal collateral calls, i.e. calls for collateral to be posted on top of the already pledged one, is a major source of instability in CDS markets,¹⁹ increases in CDS spreads have the potential to generate strong reverberations in asset markets, if they surpass triggering levels. Apparently, this risk did not materialise during the Cypriot bail-in event. However, even a regionally limited bail-in already demonstrated the potential risks for contagion through this channel.

¹⁹ Vuillemeij, G. and Peltonen, T. (2013): Simulated Sovereign Credit Events and their Spillovers to the European Banking System – the Interplay Between Sovereign Bonds and CDS Holdings, mimeo, European Central Bank.

Figure 11 Mid spread close on the Itraxx SenFin



Source: Thomson Reuters Eikon.

4 RISKS FROM INCREASED USE OF COLLATERAL

As discussed in the previous report, the reliance on collateral and especially high quality assets such as governments bonds has led to rising concerns about potential collateral shortages.²⁰ In the event that those concerns would be validated by future events, incentives for a general extension of the scope of assets eligible for collateral (especially in private transactions) are generated. Such a trend, combined with lowering the quality of acceptable collateral, could raise the counterparty risks of collateralised loans, increase the interconnectedness of the financial system and add to the complexity of risk evaluation. Other practices, discussed in more detail in section 4.2, include more efficient entity-level collateral management, increased collateral reuse and collateral transformation, could also lead to similar consequences.

According to ESMA's estimates, the supply of EU high quality collateral, i.e. investment-grade sovereign bonds, covered bonds and nonfinancial corporate bonds rates AA- or above, was around EUR 12.3tn as of 2012, the bulk of which consisting in sovereign bonds. The demand for collateral in the EU is around EUR 4.1tn, mainly for repo operations, exchange-traded and OTC derivatives and securities lending.²¹ On the whole, these estimates do not point to imbalances at the current juncture, although the expected increase in demand over the next few years (for example in order to meet the forthcoming regulatory requirements) may exceed the increase in the supply, resulting in relative scarcity of collateral, in particular in relation to high-quality collateral. Currently observed practices like over-collateralisation and trends such as the rising level of asset encumbrance among banks have the potential to contribute to this development.

Even if there is no shortage at the aggregate level, some specific institutions may be exposed to local shortages, especially if high quality collateral is concentrated in a few large institutions and if the collateral remains idle in their books.

One way to measure potential pressure on collateral is to focus on the European sovereign repo market. Recently, repo rates have been negative on German bonds since July 2012, and close to zero for French bonds.

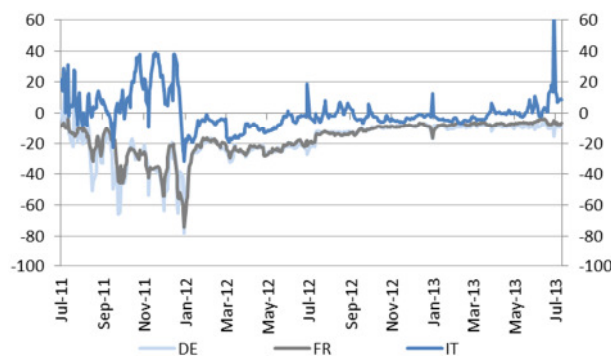
²⁰ Similar issues and conclusion are discussed in Committee on the Global Financial System (2013): Asset encumbrance, financial reform and the demand for collateral assets, CGFS Papers, No 49.

²¹ The supply and demand figures are presented in more detail in the ESMA Report on Trends, Risks and Vulnerabilities No. 1, 2013, p.30. http://www.esma.europa.eu/system/files/2013-212_trends_risks_vulnerabilities.pdf.

Those negative repo rates can provide relatively cheap funding for bondholders (especially banks that can get funding in the repo market and lend in the unsecured money market), but they can also adversely affect money market funds who are major players in the repo market. Hence, some segments of the funding market could become impaired implying the potential for temporary funding constraints, despite the availability of collateral. However, the recently low or even negative spreads between the unsecured and secured overnight rates reported in Figure 12, i.e. the spreads between overnight repo rates and the EONIA, remained stable at around -10 basis points for FR and DE and were around 0 for IT while trading volumes have been relatively stable over the last months, indicate that the price of collateral is relatively low, reflecting no pressing concerns regarding counterparty risks related to unsecured interbank loans. Consequently, there is recently no evidence for an immediate threat of disruptions in these markets.

Any measures designed to reduce the frictions in collateral use indicated by the low spreads between secured and unsecured debt would unlock the full potential of secured funding sources. In addition, they would help to mitigate any risks arising from collateral usage (to be discussed in section 4.1. and 4.2) and to contribute to a sound development of the financial system while supporting the process of deepening securitisation.

Figure 12 Spread between overnight rates on sovereign repo transactions and EONIA, in basis points.



Source: ICAP, ESMA.

4.1 SECURITISATION

In reviewing the events that gave rise to the present financial crisis, the implosion of the securitisation market in 2007/2008 ranks highly. While most instruments that proved much more volatile than expected such as sub-prime RMBS were largely based on underlying assets located in the US, investors were located globally and in turn losses were distributed worldwide. Moreover, illiquidity contagion during the market nadir of 2008 spread into most corners of the securitised market, including Europe. What began as a market event transformed into a liquidity squeeze and soon revealed material gaps in our knowledge of credit exposures.

Today's securitised market bears little resemblance to that which existed in 2007. It is smaller, less complex, has less leverage, comprises fewer participants and is of materially higher credit quality. Some sectors of the securitisation market have decreased markedly including many asset-backed commercial paper sectors, the entire asset backed conduit market, collateralised debt obligations ("CDOs") and synthetic securitisation. Major issuers and counterparties have disappeared, merged or withdrew from the market. For those still active, the underlying collateral securitised is more closely related to clearly defined demand components—housing, autos, and credit cards. Products are no longer issued for pure investor speculative purposes, i.e., synthetic CDOs, and issuance for distribution is strongly reduced. More than 50% of issued volumes in the EU,

which amounted to EUR 200bn in 2012, are actually taking the form of retained assets directly used as collateral with the ECB. On the one hand these developments reduce the complexity of the markets and lower associated risks. Thus the market's transparency has arguably increased substantially in recent years, also supported by the increased involvement of credit rating agencies within the securitization process as mandatory under CRA2. Alternatively, disclosure requirements for issuers of securitized products delivered positive impulses for an increase in market transparency by reducing investor's reliance on single credit rating agencies, promoting competition between the latter and improving the access to unsolicited credit ratings. Arguably, as a result of the down-sizing of the financial intermediation segment some negative implications for the availability of funding in the economy and increasing macroeconomic down-side risks could be observed. In addition, incentives for the development of more sophisticated products, including the CoCos discussed in Section 3.3, have been reduced. Factors contributing to the shrinking of the issuance and the demand for securitised products include primarily the lack of confidence in these products as well as weak macroeconomic growth projections, mitigating policy measures and forthcoming legal and regulatory changes. The Solvency II directive, which removes all Solvency I eligibility limits on insurers' investments, and the Basel Securitisation framework will require insurance firms and banks to hold (increased) capital against holdings of ABS. Some stakeholders are therefore concerned that investors would demand fewer ABS products and require a higher yield, which together is likely to contribute to the reduction of or limited growth of the sector. Nevertheless, given the deleveraging of the EU banking sector, market expectations for future changes in the current low interest rate environment and a general need for an increased availability of funding to the real economy, a thoroughly risk-managed and transparent securitisation has the potential to step in as an alternative for financial intermediation. In this light, recent attempts of the ECB to introduce a standardisation of criteria for the eligibility of ABS as collateral could contribute to a more transparent collateralisation process, a broader market for securitised funding and ultimately contribute to higher economic growth. The market for insurance-linked securities is also seeing sustained capital in-flows, offering a means of channelling money into reinsurance and allowing investors a return which is likely to be less correlated with financial markets.

The securitisation sector continues its transformation. Nonetheless, its future as a material asset class in European financial markets is uncertain. It will depend primarily on regulatory guidelines still in development.

4.2 COLLATERAL TRANSFORMATION, RE-USE AND INTERCONNECTEDNESS

The safety and liquidity value of collateral is increasingly being priced, providing incentives for more efficient use of collateral. Institutions with static portfolios of high-grade liquid securities thus have incentives to lend these securities to institutions which may be in need of them for example for liquidity buffers. Institutions with lower-grade securities have incentives to optimise their collateral use (e.g. posting cheapest-to-deliver collateral where allowed) and to transform their collateral (through collateral upgrade transactions) to improve their access to liquidity or extract liquidity premium from high-grade securities.

Although collateral transformations (such as through repos or securities lending) may produce beneficial effects of increased efficiency (as already discussed in the last report), a potential lack of transparency stemming from those transformations is likely to increase the risks of interconnectedness, pro-cyclical effects and a lack of information in potentially necessary resolution processes for large financial institutions. Risk drivers include higher exposures for unsecured debtors through asset encumbrance, increased interconnectedness due to collateral upgrades and securities financing transactions, collateral reuse and the netting of repos and reverse repos, stronger pro-cyclical effects due to more frequent use of low-quality assets as collateral and variations in collateral demand generated by margin calls and revaluations. Finally, a lack of transparency on pledged assets and eventual additional margin calls within the potential resolution process for a failure of large financial institutions contribute to the risks discussed above.

Examples of such increased interconnectedness and contagion risk include the collateral-based transaction chain between hedge funds, prime brokers and the repo market, the collateral upgrade transactions between banks (in need of higher-quality collateral) and insurers (in need of extra income from idle holdings of high-grade securities), the use of collateral in CCPs and the increased complexity of collateral use in securities with bail-in features.

5 RISKS TO CONFIDENCE IN BALANCE SHEET VALUATIONS AND RISK DISCLOSURES

The financial reports of financial institutions and notably banks have been heavily criticised during the financial crisis with regards to representation of the underlying economic financial position and financial performance. Two main factors might be identified as causes for concerns by market participants. First, concerns were generated by frequent misapplication of the existing accounting framework, e.g. when financial institutions continued to apply overly optimistic estimates about future payment streams in determining the value of assets on their balance sheets. Second, shortcomings and room for interpretation in the accounting framework permitted delay in recognition of economic losses or did not require providing sufficient levels of transparency in relation to those matters. For example, disclosure formats were frequently not precisely described and offered additional room for potential misrepresentation. Therefore, eventual future clarifications of reporting formats might help to improve transparency.

Some of the main relevant topics connected to these two main factors included:

- valuation of complex financial instruments, notably in illiquid markets,
- timely and sufficient recognition of impairment losses of financial assets measured at amortised cost,
- valuation of goodwill and deferred tax assets in light of profitability prospects, and
- overall transparency of financial information provided to the market.

Asset Quality Reviews

Asset quality reviews have often been mentioned as an appropriate way to address uncertainties in balance sheet valuations, and a balance sheet assessment should be conducted prior to starting the Single Supervisory Mechanism (SSM), for banks which will be subject to direct supervision of the ECB in the SSM. The EBA agreed, in May 2013, on recommendations to supervisors to conduct asset quality reviews on major EU banks in order to dispel concerns over the deterioration of asset quality. It also proposed an EU-wide definition of non-performing loans and on forbearance, facilitating coordination and comparability of asset quality reviews.

Risk weighted assets

Market uncertainties regarding perceived inconsistencies in the calculation of banks' risk weighted assets (RWA) have negatively affected market perceptions of EU banks. The EBA is conducting a review of the consistency of RWA with the aim to identify whether there are material differences in RWA outcomes. It has published two interim reports²² of its review. The first report showed that there are differences across banks in terms of the Global Charge (GC) that is the combination of RWAs (unexpected losses) and the expected losses (EL). About 50% of the differences in terms of GC between banks mainly stem from the stage of the roll-out of internal models as well as from the portfolio mix (difference in relative shares of asset classes) of each bank's loan portfolio. The remaining 50% stem from the IRB risk parameters applied, thus reflecting each bank's

²² http://www.eba.europa.eu/documents/10180/15947/Interim-results-EBA-review-consistency-RWAs_1.pdf
<http://www.eba.europa.eu/documents/10180/15947/EBA+Report+-+Interim+results+update+of+the+EBA+review+of+the+consistency+of+risk+weighted+assets.pdf>

specific portfolio and risk management practices. A second interim report reviewed RWA consistency in sovereigns, institutions and large corporate exposures, generally referred to as low default portfolios (LDP). A hypothetical portfolio exercise found differences in (i) the scope of the application of internal models to LDP counterparts, in (ii) the probabilities of default (PDs) and the loss given defaults (LGDs) parameters for the same exposure to a counterparty, in (iii) the definition of default and the computation of the default rate used for the calibration of the internal models, and in (iv) the computation of risk weights and expected losses on defaulted assets. The EBA is in the process of conducting further analysis including whether RWA differences across banks and portfolios are justified by fundamentals or whether differences are related to bank idiosyncrasies and diverging supervisory practices. The EBA will consider a range of policy responses including greater disclosure on RWA drivers as well as supervisory benchmarks and greater standardisation of supervisory practices.

Valuation of complex financial instruments

Lack of transparency about the pricing and valuation of complex financial instruments posed a risk to financial system and the liquidity in the market. The new accounting standard IFRS 13: *Fair Value Measurement* that is applicable since 1 January 2013 aims to address the shortcomings of the requirements of the current standard IAS 39 in relation to measurement of fair value of financial instruments when the market becomes less active and to improve the transparency on measurement uncertainty through additional relevant disclosure on measurement assumptions, notably in case of complex financial products. Rigorous application of the new requirements is necessary in order to accurately represent the fair value of complex financial products in financial reports.

Impairment of financial assets measured at amortised cost

It has been noted that many financial institutions recognise economic losses that are embedded in portfolios of financial assets only too late and in insufficient amounts. This “too little too late” issue became more problematic in the context of lack of economic growth. Allowing late recognition of economic losses could mask weaknesses of certain financial institutions and diverts the lending capacity from new projects, as additional funding is needed to repair balance sheets.

The G20 leaders have called on global accounting standard setters to address the “too little too late” recognition of impairment losses by introduction of an expected loss model. Introduction of such model should lead to earlier recognition of allowances for credit losses by reflecting the underlying credit risk of the loan portfolios in the financial reports. Introduction of the expected loss model should lead to earlier recognition of higher amounts of expected losses. Building of sufficient loan allowances should contribute to increase confidence on the sufficiency of capital levels, quality of the financial reports and reported earnings, facilitating the restart of the lending process.

Recently, regulators and market participants have become concerned about the level of transparency in relation to forbearance practices when banks grant concessions to borrowers due to their financial difficulties. In a lot of cases, extension of forbearance measures indicates that economic losses have been realised. However, these economic losses can be hidden by optimistic assumptions about the expected cash inflows from the instruments, leading to delays in the recognition of credit losses in the financial reports. Regulators strongly urged banks to properly implement existing accounting standards and accurately reflect the effects of forbearance in their financial reports calling for proper recognition of these economic losses. In December 2012 ESMA published a public statement on forbearance activities in order to contribute to the accuracy, transparency and comparability of IFRS reporting in relation to that matter.

Valuation of goodwill and deferred tax assets in light of profitability prospects

Worsened economic outlook together with newly adopted and planned regulatory changes applicable to the financial sector have had an impact on the level of profitability of financial institutions with potentially lower profitability levels to be used in the estimates supporting values of assets such as goodwill and deferred tax. However, there are fears that the assumptions underlying recognition and measurement of assets dependent on future profitability, such as goodwill and deferred tax assets, do not fully reflect the decreased profitability potential of some of the financial institutions. This might be one of the reasons market capitalisations for many financial institutions remain firmly below their book value as derived from the financial reports. A higher degree of realism in assessing future profitability would better reflect the economic reality and help investors to regain the trust in the quality of financial reports.

Transparency

Last but not least, lack of transparency of financial information provided to the market by financial institutions, has led to growing mistrust in financial reporting. Improved transparency, notably in the areas of risk disclosures, credit risk and valuation of collateral, liquidity, funding and asset encumbrance and hedge accounting should progressively improve market confidence in financial institutions.

New accounting standards, currently under discussion, regarding classification and measurement of financial assets, impairment and hedge accounting should help to increase the level of transparency of financial reports by decreasing the number of classification categories and impairment models and aligning risk management practices more closely with financial reporting. EU banks could help restore market confidence through building on recommendations and reports released by the ESAs regarding transparency and disclosures of institutions, as well as on recommendations of the FSB Enhanced Disclosure Task Force to enhance their 2013 annual reports and Pillar 3 disclosure reports.²³

Balance sheet valuation and low interest rates in the insurance sector

As discussed in Section 2.1, the balance sheet impact of low interest rates in the insurance sector would be more evident in those cases where market valuation is applied. It is important to recognise in this context that market consistent valuation is merely “the messenger” in terms of making an underlying risk visible at an early stage.²⁴ In terms of official solvency requirements, Solvency I is primarily based on historic cost accounting and is not a risk-based framework. As a result, the potential solvency impact under Solvency I is limited and may take some time to emerge in terms of solvency cover, since it would rely on a prolonged run of losses to emerge. As such, the underlying problem would be somewhat hidden. Indeed, as discussed in Section 2.1, Solvency I levels are generally more than adequate, even in this challenging environment.

The implementation of Solvency II would see a move to market consistent valuation and a risk based solvency requirement that would explicitly calculate the interest rate risk capital charge and would discount insurance liabilities using risk free rates as a basis. In this context, it is important that insurers do not store up risks that may crystalize suddenly with the implementation of Solvency II.

²³ For details of EDTF recommendations, see https://www.financialstabilityboard.org/publications/r_121029.pdf

²⁴ Solvency II should include regulatory measures to ensure that short-term market movements are appropriately treated with regards to insurance business of a long term nature.

6 RISK OF LOSS OF CONFIDENCE IN FINANCIAL BENCHMARKS

The quality and continuity of key financial benchmarks in the EU remains a key concern of ESMA, EBA and national competent authorities. Concerns arose in particular around interest rate benchmarks. Regarding benchmark interest rates, the incidence of obviously erroneous submissions deviating abnormally from other submissions seems to have declined in response to the heightened scrutiny by supervisory authorities and the investigations being carried out by the competent EU and overseas authorities into the potential manipulation of Libor and Euribor.

Benchmark quality

Erroneous or manipulative quotes and or pricing signals for benchmarks result in a loss of investor confidence in benchmarks. As a result, the pricing efficiency of financial products based on a manipulated benchmark can decrease. Given the widespread use of financial benchmarks, including trillions of euros worth of contracts across a range of product categories, a loss in confidence in benchmarks could have a destabilising impact on the relevant markets and beyond.

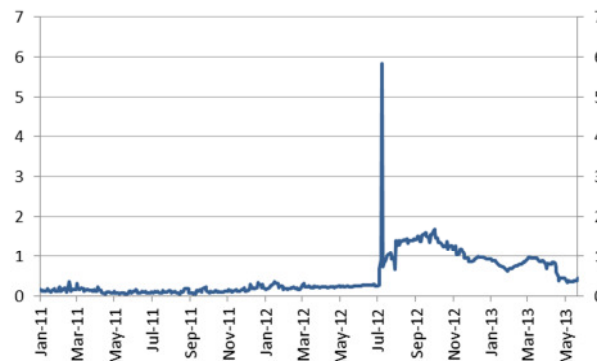
Benchmark continuity

The continuity of benchmarks remains a key concern of ESMA and EBA, in particular in the area of quote-based inter-bank interest reference rates. Existing and planned internal measures by benchmark administrators to strengthen continuity provisions notwithstanding, withdrawals from benchmark panels by contributing banks can weaken the robustness and representativeness of an inter-bank reference rate and may lead to a decline in confidence on the part of benchmark users. A growing number of withdrawals from inter-bank reference rate panels have been observed in the wake of the enhanced scrutiny of benchmarks by supervisory authorities with regard to irregularities in submission and calculation activities. One example is the panel of Euribor where the number of submitting banks declined by 23% between December 2012 and June 2013, from 42 banks to 32 banks. Other panels experienced similar withdrawals. ESMA and EBA continue to monitor continuity issues in financial benchmarks in the EU, and in their principles for benchmark setting processes published they called upon benchmark administrators to encourage benchmark submitters not to withdraw from benchmark panels. The European Commissioner for the Internal Market, Michel Barnier, issued a statement in February 2013, in which he envisaged that the proposal for a Regulation on benchmarks would include the power to impose mandatory submissions for critical benchmarks such as Euribor.

Quality of contributions

Enhanced scrutiny of benchmarks by supervisory authorities with regard to irregularities in submission and calculation activities focuses, among other factors, on the quality of contributions by submitters to quote-based reference rates, especially the potential submission of manipulated quotations. Investigations by competent authorities in the EU and elsewhere into potential manipulations of inter-bank interest reference rates and oil price benchmarks are on-going. In addition to manipulation, erroneous quote submissions were identified as a second source of potential inaccuracies of benchmarks. The incidence of obviously erroneous submissions – i.e. quotes that deviate abnormally from other submissions, including so-called ‘fat finger errors’ – seems to have declined in response to the heightened scrutiny by supervisory authorities. As indicated by the dispersion in rate submissions, obviously erroneous submissions have become rare in recent months. For example, the dispersion of contributions of Euribor panel banks has declined since January 2013. In particular, abnormal deviations did not occur between September 2012 and May 2013 (Figure 13).

Figure 13 Euribor submissions - dispersion



Source: Thomson Reuters Eikon, ESMA.

Note: For each of the 15 Euribor tenors, the difference between the highest and lowest submitted contributions of panel banks is computed and normalized by the corresponding Euribor rate. The chart displays the maximum of those differences across the 15 tenors, in percentage points. The increase in the series since July 2012, is linked to technical factors such as the low level of Euribor rates. The lower the rate, the higher the impact of a given dispersion in the contributions.

Policy measures

ESMA and EBA have developed a set of Principles to address the problems in the area of benchmarks in the period until a formal regulatory and supervisory framework for benchmarks has been devised in the EU. The contents of the EBA-ESMA Principles are summarised in

Table 1.

Table 1 EBA-ESMA provisions on benchmarks

Key EBA-ESMA provisions on benchmarks

Benchmark definition: A price, rate, index or other value which is

- made available to users, whether free of charge or for payment; and
- calculated through the application of a formula to the value of one or more underlying assets or prices, including estimated prices, interest rates or other values, or surveys; and
- by reference to which (i) the amount payable under a financial instrument or the value of the financial instrument is determined; or (ii) the performance of a financial instrument is measured.

General framework for Benchmarks setting: General provisions on

- methodology,
- governance structure,
- supervision and oversight,
- and transparency of benchmarks.

Principles for Benchmarks: Specific provisions governing the activities of

- Benchmark Administrators,
- Benchmark Submitters,
- Benchmark Calculation Agents,
- Benchmark Publishers,
- Benchmark Users, and
- Principles for the continuity of Benchmarks.

1. Legal continuity, revision and review: Without prejudice to the above Principles, ESMA and EBA

- are conscious that any change to a benchmark framework (calculation methodologies and procedures) should be managed so as to ensure that any disruption to existing benchmark-referenced contracts are proportionate and minimised;
- may revise the Principles in light of potential future EU regulations, material changes in market practices or the agreement of international standards pertaining to benchmarks;
- plan to conduct a review of the application of the Principles eighteen months after their publication, but may alter that timeframe should

they deem it to be appropriate or necessary.

Note: Summary excerpts from EBA-Principles. For full text see original document.
Source: EBA-ESMA ESMA-EBA Principles for Benchmark-Setting Processes in the EU, London, Paris, June 2013.

Although the provisions will be without binding legal effect they provide benchmark users, benchmark administrators, calculation agents and publishers and firms involved in benchmark data submissions with a common framework to work together and provide a glide path to potential future legal obligations.

7 OPERATIONAL RISK OF CYBER ATTACKS

Several cyber risk incidents since the previous report have raised the profile of cyber risk: In April 2013 several Dutch and other banks were hit by a Distributed Denial of Service (DDoS) cyber-attack, which temporarily closed down some banks' internet and mobile banking services and affected payments by other banks²⁵. In June, US authorities charged several individuals in connection with a global cyber-based series of bank robberies, where money was fraudulently transferred to pre-paid payment cards and withdrawn from ATMs around the world.²⁶ Cyber risks apply not only to banks, but also to market infrastructures and other financial market participants.

Financial institutions' Chief Information Officers are paying increasing attention to their growing dependence on the internet, consequent vulnerability to cyber-attacks and potential for any disruption to service delivery which could incur reputational damage. The Bank of England H1 2013 Systemic Risk Survey showed that risk managers' concerns about operational risk climbed 10 percentage points to 24 percent, with threats of 'cyber' attack the most frequently mentioned specific risk.

Authorities have also become concerned about cyber risk: The European Commission issued a general cyber security plan in February²⁷; the US Financial Stability Oversight Council highlighted cyber risk in their June 2013 annual report²⁸; and the Bank of England Financial Policy Committee have recommended work to improve and test the financial system's resilience to cyber attacks.²⁹

Cyber risk is a sub-set of technology risks, which had already come to the fore in mid-2012, when an IT incident at an institution in the UK caused severe disruption to many of its IT systems serving operations in the UK and Ireland. The institution was unable to update customer account balances, process payments and participate in clearing. The incident also had an extended impact on a subsidiary of the institution operating in Ireland and Northern Ireland. The regulatory authority in Ireland (Central Bank of Ireland - CBI) conducted a detailed review of the incident covering issues including customer redress, IT systems and controls and business continuity and incident management.

Following this event the CBI surveyed 19 banks operating in Ireland in order to establish industry's awareness and preparedness in relation to business continuity planning and IT. The survey identified some positive results. All except one bank conducted routine business impact analysis, with all banks having business continuity policies, and a majority having separate disaster recovery policies. A number of areas of concern were also noted. For example, business continuity processes and policies were not always externally accredited, nor was it always clear that effective Key Risk Indicators and Key Performance Indicators were in place to manage service-level agreements (SLAs) for outsourced material IT architecture. In addition, a group-

²⁵ See <http://bigstory.ap.org/article/dutch-banks-online-services-hit-cyberattack>

²⁶ See <http://www.voanews.com/content/us-charges-eight-for-cybercrime-targeting-banks-government/1680661.html>

²⁷ See http://europa.eu/rapid/press-release_IP-13-94_en.htm

²⁸ See <http://www.treasury.gov/initiatives/fsoc/Documents/FSOC%202013%20Annual%20Report.pdf>

²⁹ See <http://www.bankofengland.co.uk/publications/Documents/fsr/2013/fsrfull1306.pdf>

managed approach to Information Technology and Business Continuity Planning of a number of international banks carried the potential risk of excessive comfort being taken by local boards in respect of the resilience of these systems and plans. Further supervisory work in this area is under active consideration, and identified issues are being followed up by the CBI through on-going supervisory engagement.

Beyond technology risks, operational risk also covers a wide range of other risks, such as litigation and redress risk (often related to conduct issues) as well as security risks. Financial institutions and institutional investors incur operational risks as an incidental consequence of providing financial services. It is different to the main financial risk types of credit risk, market risk, liquidity risk, in that firms rarely consciously 'take on' operational risk in order to reach for a higher rate of return. However, management actions to cut costs can expose financial institutions to increased operational risks, both in the execution of restructuring measures and if there is any cut-backs to the risk control functions needed to manage and mitigate operational risk.

Recognising that some amount of operational risk is unavoidable, banks are required to hold capital against operational risk. But it is important that financial institutions do not see operational risk capital as a substitute for sound risk management of operational risk. Some types of operational risk may even be considered 'existential' operational risk, which could threaten the very viability of a financial institution's business model. Any firm whose profitability depends upon unacceptable treatment of customers runs a risk of consumer-protection redress action by regulators and/or consumers – mobilised by claims lawyers – with little public sympathy for financial institutions since the crisis. An international bank might find its business model challenged if it were to fall foul of US authorities and be prevented from settling US dollar payments. An internet bank – or any financial institution dependent on the internet for continuous service delivery – could suffer severe reputational damage and loss of business if it were shut down operationally for any length of time, let alone if any security breach on the internet resulted in fraud and loss of client deposits or investments. And no amount of operational risk capital can protect against the consequences of a catastrophic loss of a single critical business site; hence the need for disaster recovery sites. These 'Existential' operational risks require robust risk management underpinned by a strong risk culture across the senior management team.