

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

AUGUST 2014

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EXECUTIVE SUMMARY

Whilst the general economy has been recovering slowly over recent months and market conditions have remained benign, the European financial system is still facing a range of inter-related and cross-sectoral risks¹, such as weak economic growth, high levels of private and public debt, and the effects of persistently low interest rates and fragmentation.

These risks require heightened supervisory attention both at a political level and from the European System of Financial Supervision (ESFS), including the European Supervisory Authorities (ESAs). Although important policy milestones have been reached with the completion of the main elements of the European regulatory framework, the key risks identified in previous reports, such as the effects of persistently low interest rates and fragmentation, continue to challenge the stability of the European financial system. This report mainly considers risks that have been aggravated since March 2014; most prominently valuation risks associated with search for yield in a protracted low-interest-rate environment and risks linked to the conduct of business. It also provides suggestions for micro-prudential policy responses to address these risks.

The **fragile nature of the weak economic recovery within the EU**, as reflected in **weak private and public balance sheets**, may currently be masked by **benign market sentiments** and the growing momentum of the financial markets. The sustained **accommodative monetary policy** and further measures taken by central banks have contributed to improvements in financing conditions. However, the protracted nature of the low-interest-rate environment has intensified **search-for-yield behaviour** as investors seek to maintain their portfolio returns in an environment of decreasing market returns. Coupled with historically low volatility, **risks-to-asset valuations** generated by the potential for snapbacks have continued to increase from an already elevated level. A **substantial debt overhang in public and private sectors** and **persistent asset quality concerns** contribute to medium-term risks.

Whilst **ongoing asset quality reviews and stress tests** in the banking sector should dispel some concerns over the deterioration of asset quality and improve the reliability of the balance sheets of EU financial institutions, further challenges lie ahead, and the **ongoing repair of balance sheets and debt restructuring** should remain a key priority for the medium term. In addition, to the extent that **economic agents are adjusting their financial positions** by reducing indebtedness, **negative implications for domestic demand** need to be factored into growth projections. Since these concerns may apply to some major economies, they may also feed back into expectations for a prolonged period of low growth. Therefore, to **improve competitiveness and to revive the lending channel continuing with structural reforms** remains a key priority. **Significant aggregate exposure to political and economic uncertainties in a number of global emerging market economies (EME)**, coupled with volatile exchange rates, add to the potential risks affecting the European financial system through significant aggregate exposures to respective economies.

The methodology for the **ongoing 2014 EU-wide stress tests** aims to capture these macroeconomic concerns by assessing the effects of an increase in global bond yields amplified by an abrupt reversal in risk assessment, especially towards EMEs, and a further deterioration of credit quality in countries with feeble demand.

The report also emphasises **business-conduct risks** and describes the first policy steps that the ESAs have initiated to address rising and increasingly materialising concerns relating to operational risks. **The rising scope and number of detrimental incidents relating to these risks**, as well as the **considerable financial and reputational damage that they may cause**, have **highlighted a need** for many institutions to **enhance corporate governance, including management functions, compliance proceedings and risk management culture**. Institutional governance arrangements have often fallen short of identifying conduct-of-business concerns. Therefore, a need to better integrate conduct of business concerns in institutional governance arrangement has been identified. However, due to their relevance and the potential for further supervisory action, this report focuses on ESA policy recommendations that address two specific cases of conduct-of-business risks mis-selling of financial products and risks related to key financial benchmarks in the EU.

Finally, this report discusses **IT-related operational risk and cyber risk**. Risks concerning IT infrastructures and policies have increased since the last report, and while some initiatives have been launched to address these risks, a deeper understanding of supervisors and institutions is required.

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 conclusions drawn apply only on an aggregate European level. This qualification applies throughout the report.



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Promoting confidence in the European financial sector on a more permanent basis will also depend on the commitment to and the success of ambitious structural reforms implemented across Europe. It will be important that lower risk spreads for vulnerable economies do not moderate commitments to structural reforms and add to concerns in terms of debt sustainability across the EU, including in countries with subdued economic growth and structural instabilities.

INTRODUCTION

The risks facing the EU financial system have not changed substantially since the previous Joint Committee Report on Risk and Vulnerabilities, but recent developments illustrate that a number of key risks continue to challenge the stability of the European financial system:

- prolonged period of low growth combined with high indebtedness in private and public sectors;
- search-for-yield behaviour risks that could be exacerbated by potential snapbacks;
- risks stemming from emerging market economies;
- risks from the deteriorating conduct of business by financial institutions;
- Increased concern about IT risks and cyber-attacks.

REGULATORY CONTEXT

Significant regulatory reforms have been re-shaping the financial market in the EU, with the aim of ensuring a higher level of efficiency and the stability of the financial system. The key elements of the Banking Union were adopted with the final agreement on the **Single Resolution Mechanism (SRM) and the Single Resolution Fund** in May, and the implementation of these elements is progressing rapidly. At the same time, work has already begun in the Council and the European Parliament to examine proposals to reform the structure of the EU Banking system, setting out **rules for 'too big to fail' banks**. Work is also in progress on the reform of **Money Market Funds, and the implementation of MiFID II**. Negotiations are nearing completion on **anti-money laundering regulation** and on the Insurance Mediation Directive (**IMD II**). The final agreement on Omnibus 2 paves the way for the full implementation of **Solvency II** in the insurance sector during 2016.

The **Bank Recovery and Resolution Directive (BRRD)**, which establishes harmonised rules on how to deal with failing banks, will apply as of 2015, although Member States may opt to apply the bail-in tool only in 2016. However, the 2013 Commission Communication on banking in the context of state aid generally requires burden sharing from shareholders and junior debt holders before any public support in the form of recapitalisation or asset protection is given to an entity. Nevertheless, pending the introduction of burden-sharing provisions in national legislation, some uncertainties may still undermine investor confidence. Therefore, the close coordination of national activities in this area is needed at a European level.

Beyond the banking union, the **bulk of the regulatory effort will now shift towards the detailed implementation of regulations**, with the ESAs being asked to prepare some 400 draft regulatory and implementing Technical Standards by the end of 2015, and to improved supervision. New supervisory data expected for 2014 and 2015 will support the implementation of these important tasks and augment the amount of information available at an EU level.

The **entry into force of the BRRD and the SRM** represents a major step in terms of **breaking the link between sovereigns and banks** and will ultimately contribute to a sound and stable financial system, although the period of transition to full implementation may be challenging. The removal of implicit state support may lead to a new round of rating changes for financial institutions and across asset classes. To minimise potential adverse effects on the market in the short term, it is important for Credit Rating Agencies (CRAs) to be transparent and to provide forward guidance to market participants on how they will react to the implementation of the regulatory initiatives.

Additional work is being undertaken in the securities markets, including the **implementation of MiFID II**, which will be a significant project. Main objectives of this work are to increase transparency, competition and investor protection, and reduce the scope for business and conduct risks, as well as increase the resilience of financial market infrastructures. Related work is also being carried out to address conflicts of interest in the sale of insurance products (**IMD II**), and to improve the transparency and comparability of investment products across all sectors (Packaged Retail and Insurance-based Investment Products - **PRIIPs**). Transparency issues are also increasingly tackled in derivative markets where the implementation of **central reporting on derivative transactions through trade repositories** and the move to **central clearing of the major part of standardised derivative contracts through central counterparties (CCP)** is very likely to contribute to increased transparency and reduce the associated risks seen in the past. All of these measures are likely to increase the efficiency of financial markets and reduce potential barriers to the flow of funds from investors to the real economy.

Similarly, current regulatory work, both at EU and international level, on the **shadow banking sector, resolution issues around CCPs**, and in particular **on possibly systemic non-bank-non-insurance-institutions**, is aimed at reducing risks stemming from regulatory arbitrage, interconnectedness and related threats to financial stability.

1 MACRO RISKS

1.1 RISKS FROM A WEAK ECONOMIC GROWTH IN A HIGH-DEBT AND LOW-INTEREST-RATE ENVIRONMENT

The **macroeconomic recovery is underway**, but is **still weak and uneven across the EU**. Many countries struggle with the dual challenge of the high levels of debt amongst non-financial corporations and low credit growth in the private sector. Unemployment is very high in some countries (well above 10% for the euro area), consumer confidence continues to be sluggish, and the risk of very low inflation/deflation remains a concern. Some real-estate markets continue to exhibit long-standing vulnerabilities, mostly due to a combination of overvalued house prices, over-indebted households and/or under-capitalised banks. Nevertheless, signs of improved confidence are present, mainly driven by domestic demand supported by a sustained accommodative monetary policy and improvements in financing conditions, fiscal consolidation and national structural reforms.

Despite the fragility of the economic recovery and following a short halt in early 2014 (mirroring a re-emergence of heightened uncertainties especially from emerging countries), the **financial markets regained momentum**, supported by the loose monetary policy stance of major central banks, which fuelled search for yield behaviour, increasing the willingness of investors to engage in risky asset segments and leading to unprecedented low interest rates (both at the short and long end of the yield curve).

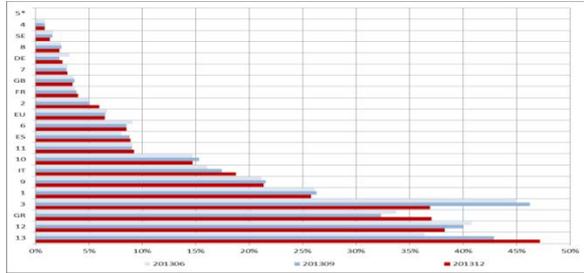
However, the **dislocation between the performance of financial markets and the real economy** that was highlighted in the last risk report is continuing and **downside risks are still lingering in the EU economic system**. Differences in macroeconomic performance remain substantial and in several Member States levels of **unemployment and private and public debt** are still high. If persistent, **disinflationary dynamics** may generate risks by increasing real debt values and real interest rates which could exacerbate the burden associated with elevated public and private debt levels. In the sovereign debt market segment, lower nominal spreads for vulnerable countries may moderate the commitment to structural reforms, raising **concerns in terms of debt sustainability** especially in countries with subdued economic growth, structural instabilities, and a particular need for ongoing balance sheet adjustment in financial and non-financial sectors. Finally, unexpected changes in monetary policy as well as supply-side shocks, with exchange rates and commodity prices as potential channels, may lead to a reassessment of risks and could trigger asset price correction. The prospective real economy counterpart of any **potential abrupt unwinding of search-for-yield flows** adds an additional key risk going forward.

While improvements in market confidence towards EU banks was observed in the first half of 2014, **the EU banking sector has continued to experience a number of challenges**. These include the heavy debt overhang in public and private sectors, the persistent deterioration of asset quality, the potential for a further rise in provisioning, squeezed net interest margins, also reflecting the persistently low-interest-rate environment, the potential prudential impact of issues relating to the conduct of business, and therefore continued profitability concerns.

In fact, the **quality of some banks' loan portfolios continued to decline** in the first months of 2014². However, to some extent, deteriorating credit quality indicators can be attributable to materializing front-loading and de-risking measures implemented ahead of asset quality reviews and the EU-wide stress test. Deteriorating asset quality adversely affects earnings and the capital strength of EU banks, and casts a shadow over near-future economic performance. At the same time, further de-risking measures contribute to the necessary cleaning-up of banks' balance sheets and enable banks to further support the recovery. **Remaining uncertainty on banks' asset valuation** contributes to the continuous elevated risk premium levels for European banks and underscores the **need for rigorous asset quality reviews and the EU-wide stress test**. However, following the EBA's recapitalisation exercise, banks raised capital levels further and the weighted average Tier 1 capital ratio for large EU banks increased to 13.1% in December 2013.

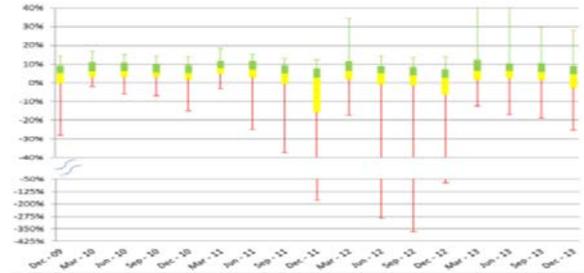
² The ratio of impaired and past due (> 90 days) loans to total loans increased slightly from 6.7% in June 2013 to 6.8% in December 2013, the highest since 2009. Impairments are showing some signs of stabilisation and the weighted average of the coverage ratio has been increasing since December 2011. However, in some cases, provisioning has not increased in conformity with rising credit risks, and an increasing dispersion of provisioning and coverage ratios across the EU is also being observed. Going forward, the banks that participated in the June 2014 EBA risk assessment questionnaire expect a marginal improvement in asset quality.

Figure 1: Ratio of impaired and past due (> 90 days) loans to total loans — country dispersion — medians by country and by size class (as of December 2013)



Source: EBA 2014 June Risk Assessment of the European Banking System
 Note: Banks classified by size according to total assets averaged over Dec 2009 to Dec 2013

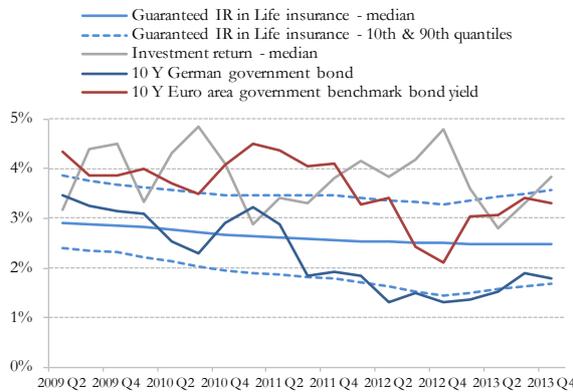
Figure 2: Return on equity — 5th and 95th percentiles, interquartile range and median



Source: EBA KRI
 Note: December 2009=100

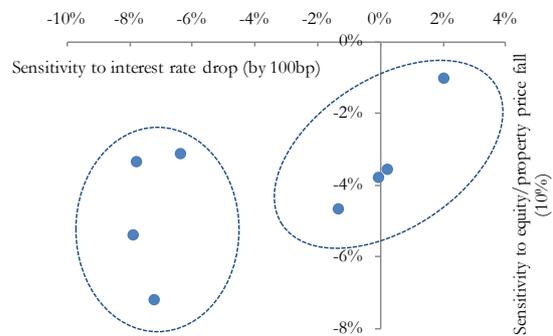
The income and profitability of EU banks continued to be weak. In 2013, the total operating income of banks (EBA Key Risk Indicator sample) declined by EUR 10 billion (following a decline of EUR 39 billion in 2012). In the last quarter of 2013, the annual flow of profits declined by 58% (EUR 54 billion), although, to some extent, the decline can be attributed to implications from front-loading and de-risking measures ahead of asset quality reviews and the EU wide stress test. No substantial improvements on income and profitability are expected for 2014. The necessary balance-sheet clean-up and litigation costs are impacting the economic performance of EU banks, as costs related to detrimental business practices have increased significantly. The new regulatory environment, a modest growth outlook, the prolonged low-interest-rate environment and low profitability will continue to present a challenge for management in terms of the sustainability of some banks' business models.

Figure 3: Guaranteed interest rate in life insurance vs. investment return, German and euro area 10 Y government bond



Source: EIOPA (sample based on large insurance groups in EU and Switzerland) and ECB
 Note: The figures represent annual guaranteed rates for businesses where such guarantees are applied

Figure 4: Embedded value sensitivities to interest rate and property price changes in 2013³



Source: Embedded value reports by a set of European insurers and EIOPA calculations. Both market consistent embedded value reports and European embedded value reports are included.
 Note: x-axis: change in embedded value in % after interest rate drop; y-axis: change in embedded value in % after equity/property price drop

In the insurance sector, low interest rates, weak income growth and high unemployment have led to a **long period of weak insurance sales** and low growth in gross written premiums. Overall market growth is expected to be limited at least until the end of 2015, despite improving economic conditions and current signs of faster premiums growth in some regions.

The fragile macroeconomic climate has resulted in a situation with persistently low interest rates and very low inflation rates in many European countries. Therefore, over the last years, the **risks stemming from a prolonged period of low interest rates** have consistently been ranked as the most important risks faced by the insurance and pension funds

³ A set of insurers have been plotted according to the sensitivity of the embedded value to i) a decrease in interest rates by 100 basis points and ii) a decrease in equity and property prices by 10%.

sectors.⁴ In particular, low interest rates affect insurance companies operating in markets with a large portfolio of traditional life business with guarantees which are currently higher than the available risk-free return (see Figure 3). Life insurers are reacting to these risks by **reshaping the products they offer to policyholders**, but it is a slow process to change the overall portfolio as old policies often dominate. Several insurers have also **increased their reserving levels**, and several European countries have introduced mandatory **additional capital buffers**. Some countries are also **introducing restrictions on dividend pay-outs**.

The embedded value reports published by several large European insurers include **sensitivities to changes in interest rates and market prices**. Evidence seems to identify **two main groups of insurance companies**. The first group is highly sensitive to interest rate changes, possibly due to relatively rigid guarantees in the current portfolio. These sensitivities, ranging between 6% and 8% are generally larger than those for declining equity and property prices. Insurers in the second group, on the other hand, are largely insensitive to interest rates developments, but are on average equally sensitive to declines in market prices (see Figure 4).

The potential effects of these challenges are also illustrated by **market developments**. While the overall market (measured by the EURO STOXX 600 index) is moving towards pre-2008 crisis levels, insurance stocks have offered a slightly lower return, although the recovery has been stronger than for banks. The available **solvency margins (Solvency I) for life and non-life insurers are still well above the regulatory minimum requirement**. However, these solvency margins are not risk-based, and do not necessarily reflect the capital position of insurance companies on a market-value basis. Therefore, market-consistent valuation of assets and liabilities which will be introduced with Solvency II, and the ongoing insurance stress test, will lead to a better understanding of both the impact of and sensitivity to capital market developments on the solvency position of insurance companies.

Persistently low interest rates also remain a source of risk for **pension funds**, even if mitigated by their ability to withstand financial and macroeconomic shocks due to long-term investment horizons. Pension funds may also call on contributions from scheme sponsors, close schemes to new members or restructure benefits, including the sharing of exposures to investment volatility, inflation, and longevity risk with scheme members. In particular, cash flow and reinvestment vulnerabilities (especially for defined benefit schemes) may lead to a yield-spread compression, as new contributions and the maturing investment returns are reinvested at lower yields. Such vulnerabilities are aggravated in schemes where a certain pay-out at retirement is guaranteed. Moreover, due to the relatively large share in their investment portfolio, equity and sovereign exposures in the current distressed environment may become a source of vulnerability for some pension funds.

Progress in implementing structural reforms, at a national and EU-wide level, has contributed substantially to the recent spread of market confidence across the EU. Therefore, **continuing with structural reforms to improve competitiveness and to revive the lending channel** remains a priority.

At the same time, **the substantial indebtedness** of businesses, including SMEs, and households, restrains their ability to raise the necessary financing. Therefore, the restructuring of debt remains a necessity, not least to underpin **various policy initiatives** launched to **promote new lending to the corporate sector**.

However, to the extent to which **economic agents are adjusting their financial positions**, by reducing debt, negative implications for domestic demand need to be factored into growth projections. These effects may apply to a number of major economies and may therefore feed back into expectations for a prolonged period of low growth.

Additionally, the **repair of individual banks' balance sheets and sector restructuring** should remain a **key priority** for the medium term.

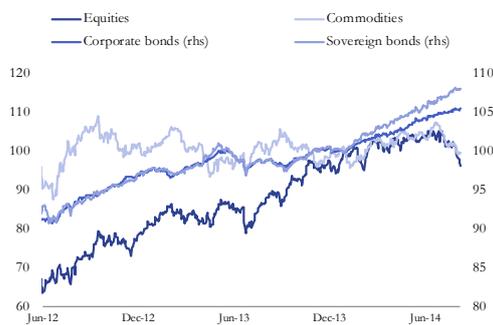
⁴ The exact ways insurers and pension funds are affected by low interest rates were discussed extensively in the August 2013 Joint Committee Risk Report. Available on <http://eiopa.europa.eu/en/joint-committee/>

1.2 SEARCH FOR YIELD IN A PROTRACTED LOW-INTEREST-RATE ENVIRONMENT

The **sustained low interest rate environment**, in combination with increasing fund flows from emerging to developed economies and buoyant EU financial markets, continues to **incentivise investors to search for higher yields** to maintain or improve their portfolio returns. Market participants seek higher yields in various ways, including investing in **less liquid, riskier and longer-duration assets** and **taking risks with off-balance-sheet investment vehicles**. Similarly, historically low levels of market volatility may sustain the already record high asset valuations at excessive levels.

As already witnessed before 2007, these periods of calm, but highly performing markets may lead to reduced market discipline and governance, increasing scope for speculative behaviour, reducing long-run asset quality and potentially significantly endangering the stability of the financial market in case of a market re-adjustment. Consequently, valuation risk **generated by the potential for snapbacks** continues to increase from an already elevated level.

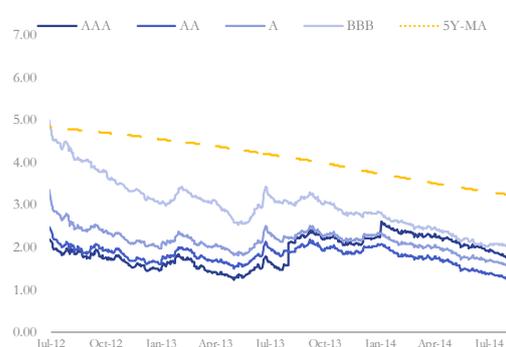
Figure 5: Market performance



Source: Thomson Reuters Eikon, Datastream, ESMA

Note: Return indices on EU equities (Datastream regional index), global commodities (S&P GSCI), EA corporate and sovereign bonds (Iboxx Euro, all maturities). 1.7.2013=100

Figure 6: Yield compression



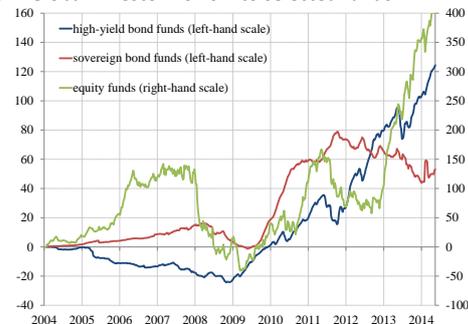
Source: Thomson Reuters, Datastream, ESMA

Note: Corporate bond redemption yields by rating grades Euro iBoxx, basis points. Data discontinuity for AAAA-rated bonds due to a change in the basket of AAA eligible assets

Following a short halt at the beginning of 2014, mirroring a re-emergence of heightened uncertainties from emerging countries both globally and at a European level, financial markets regained confidence, mainly driven by continued monetary policy support as well as the economic outlook in the EU. The **performance of equity and market indices reached record highs** and **corporate and sovereign bond-market valuations continued to increase** with volatilities remaining at extremely low levels.

The spreads of lower-rated EU-sovereign ten-year bonds relative to German Bunds have been declining. However, occasional fluctuations in government securities' yields in some peripheral Member States show how sensitive the markets can be to any signs of uncertainty. While **financial fragmentation** along national lines has diminished, it has not disappeared completely. Similarly, over the past year, **yields on lower-rated corporates strongly declined** before stabilising at the beginning of 2014.

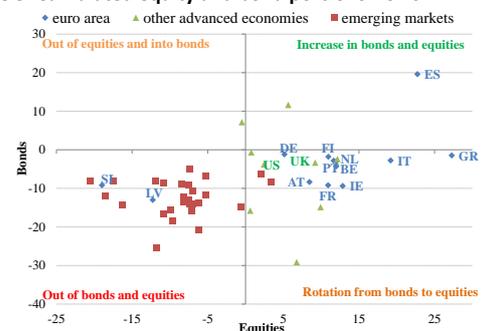
Figure 7: Global investor flows into selected funds



Source: ECB Financial Stability Review May 2014.

Note: Jan 2004 – May 2014; USD billions

Figure 8: Cumulated equity and bond portfolio flows

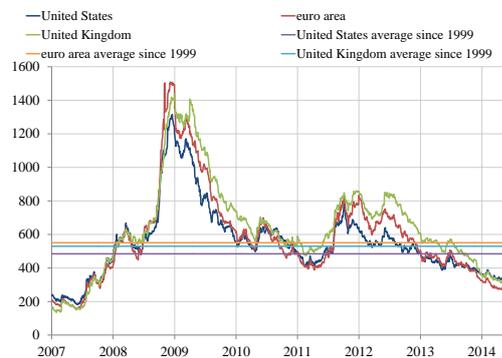


Source: ECB Financial Stability Review May 2014.

Note: 22 May 2013 – 16 May 2014; percentage of total assets invested as at 22 May 2013

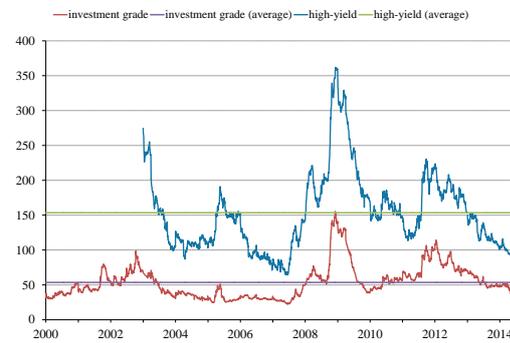
A broad-based **decline in risk premia** has continued across advanced markets as investors increasingly shift into lower-rated bonds and equities. In the case of European markets, a significant strengthening of foreign demand has emphasised this effect across all key market segments (money market, sovereign, corporate and equity). Developments were muted in emerging markets where outflows from both equities and bonds were recorded, whilst corporate bond issuance remained at elevated levels.

Figure 9: Global high-yield corporate credit spreads



Source: ECB Financial Stability Review May 2014.
Note: Jan 2007 – May 2014; basis points

Figure 10: European non-financial corporate bond spreads relative to leverage



Source: ECB Financial Stability Review May 2014.
Note: Jan 2000 – May 2014; basis points per unit of leverage

The improving financial market sentiment is also **boosting bank valuations**, as reflected in rising price-to-book ratios. The price-to-book ratios of large banks have continued to rise, with medium and small banks trailing behind. The **EU banking sector** has been taking advantage of the favourable market conditions to **raise further wholesale market funding and capital**. After euro area banks raised over EUR 80 billion in capital in 2013, offerings of both common equity and hybrids continued in the first half of 2014, in preparation for the 2014 EU-wide stress test. Since July 2013 capital of EUR 45 billion has been raised⁵.

On the other hand, as spreads on high-yield bonds have compressed to pre-crisis levels (Chart 9), **growth in products offering a higher yield but lower protection for lenders has strengthened** (including ‘covenant-lite’ bonds), in particular within the US markets. The willingness of investors to take on riskier corporate exposures and more leverage per unit of spread may be somewhat justified by the low levels of corporate default and measures of implied bond market volatility, the **sustainability of which may be tested by the eventual normalisation of global monetary policy settings**.

Worryingly, corporate credit markets also remain susceptible to **liquidity risk amplification**. Over the crisis period, there has been an important shift within the investor base of the corporate credit market: banks have become less involved, while asset managers and other investment vehicles vulnerable to redemption risk have become more entrenched.⁶ Banks have been withdrawing from market-making activities and other investors are not filling the void. Secondary market liquidity has fallen as a result, with concomitant implications in the form of reduced turnover, smaller trades and a strong focus on new issues⁷. Therefore, if they occur, abrupt redemption needs could have a negative impact on asset prices.

A sharp and disorderly reversal in market conditions could create pockets of illiquidity and exacerbate funding strains in weak banks or sovereigns. In addition to the historically low level of yields and credit spreads in a broad range of market segments, the ‘fear gauge’, as measured by the VIX index, is currently historically low, suggesting a possible under-pricing of market risk by investors, especially in light of the lagging economic recovery. The **risk of a market re-pricing** could, for example, be triggered by a **sudden change in the Fed stance**, an **unexpected deterioration in the global growth outlook** (possibly resulting from adverse news in Russia, Ukraine or China) or **larger-than-expected system-wide equity shortfalls in asset quality reviews and the 2014 EU-wide bank stress test results**.

In addition, the **measures announced by the ECB** following its early June Governing Council meeting and, in particular, the negative nominal interest rates present some **challenges for financial markets**. Whether the negative interest rates on depositing excess liquidity with the ECB **will affect money market activity by draining liquidity**, as indicated by previous closures of money market funds in reaction to interest rate cuts, remains open at the current juncture. However, if this reaction would materialise investors exiting money market funds would need to find other investments, pushing liquidity to markets with characteristics similar to money markets. **Investors may also be tempted to seek higher returns by accepting higher risks**. Therefore, the **search for yield would be reinforced**, creating additional demand for investment products that carry higher risks and therefore incentivising the issuance of these products. In particular, the search for

⁵ Completed and announced offerings; ECB source: SSM banks, 49 out of 128.

⁶ The share of euro-area bank holdings of non-financial corporate debt has fallen from 40% of the outstanding stock of these debt securities in September 2007 to 13% by February 2014, while the share of open-ended euro area investment funds (arguably more vulnerable to redemption risk) has risen from 9% in December 2008 to 21% in February 2014.

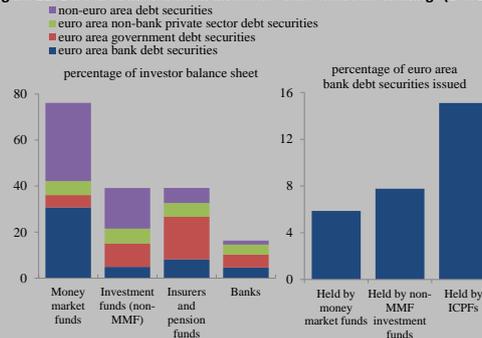
⁷ Participants in the ECB’s SESFOD survey expect this decline in market-making activities to continue, and acknowledge that the collective ability of banks to make markets for the non-financial corporate segment in times of stress might be compromised as a result.

alternative stores of value may reinforce the current positive price trends for **gold and other precious metals**, for which the prices started to rise again in early 2014. Similarly, low or negative interest rates, and in particular negative real interest rates, could add to the incentives to engage in **real estate markets** where local over-valuation tendencies would be reinforced.

Box 1 – Developments in investment funds

Among euro area institutional investors, investment funds have the largest direct exposure to bond markets and are also exposed to liquidity risks. Investment funds include both money market funds (MMFs) and non-MMFs. Exposure to developments in debt security markets both within and outside the euro area is significant for both (see Figure 11).

Figure 11: Euro area institutional investors' debt securities holdings (Dec 2013)



Source: ECB Financial Stability Review May 2014.

Developments in investment funds can have important implications for the euro area financial system as they are closely connected with euro area banks. Investment funds hold 14% of bonds issued by euro area credit institutions and provide over EUR 400 billion in loans to euro area Monetary Financial Institutions.

Even though fund investors are supposed to be conscious of any risks involved, concerns around liquidity risks in the sector are rising, since the majority of bond fund shares in the euro area are invested in assets with longer maturities: the average maturity of their assets is currently around eight years and only 6% of the bonds that they hold have an original maturity of less than one year. The resulting maturity risk is accompanied by a general downward shift in credit ratings, indicating the increasing credit risk of fixed income products.⁸

As the vast majority of bond funds in the euro area are open-ended, those funds could be exposed to risks in the event of sudden asset price shocks, even if daily market valuation, risk diversification requirements for UCITs and tools available for liquidity crisis management, such as gates or suspensions, mitigate those risks considerably. Whilst according to Fitch data on EU prime MMFs, 50% of their total assets are considered highly liquid, the average maturity of euro-area MMF assets has increased since June 2012 from 50 to 60 days and liquidity levels decreased slightly. In addition, the interconnectedness between euro-area MMFs and monetary financial institutions increased between 2007 and 2013.⁹

The prolonged low interest rate environment also has implications for the **business models of financial institutions**, namely banks and insurers, and pension funds. In the case of **banks**, it has been one driver of low profitability in EU banks, raising fundamental structural issues in terms of the sustainability of some business models which have not adapted to the low interest rate environment and creating **pressure on the net interest margins of banks** as well as profitability concerns. In the **insurance sector**, the asset allocation does not seem to have changed significantly although there is **some evidence of search for yield behaviour** stemming from the need to honour guaranteed returns in a low interest rate environment, or to keep certain non-life business lines profitable (which have traditionally relied on investment income). Strategies involve restructuring the bond portfolio towards lower quality corporate bonds (away from government bonds), investing in infrastructure financing, direct loans, real estate assets, equities and establishing partnerships with banks to fund direct loans to medium and large corporates. Finally, the low interest rate environment and search for yield has affected the insurance market by increasing the supply of reinsurance, putting pressure on reinsurance prices and on the terms and conditions of reinsurance contracts.

The **ongoing EU-wide stress tests for banks and insurers** (see box below) captures such systemic risks by assessing the effects of an increase in global bond yields amplified by an abrupt reversal in risk assessment.

⁸ See ESMA (2014), Report on Trends, Risks and Vulnerabilities No 2, 2014, p. 18, T.34. Forthcoming.

⁹ See ESMA (2014), Report on Trends, Risks and Vulnerabilities No 2, 2014, pp. 26f, T.56-58. Forthcoming.

Box 2 – EU-wide stress tests of the financial system

Authorities are in the process of extensively reviewing the resilience of banks and insurers to relevant shocks.

In the banking sector, **the EBA initiates and coordinates the 2014 EU-wide bank stress test**, undertaken in close cooperation with Competent Authorities. The EU-wide stress test examines the resilience of banks' balance sheets to stress scenarios. It is being carried out on a sample of 124 EU banks which cover at least 50% of each national banking sector. It comes in the midst of the process of repair of EU banks' balance sheets and will follow asset quality reviews (AQRs) in the EU. The outcome of AQRs will inform the EU-wide stress test, ensuring the reliability of the starting point and combining the point in time asset quality review with the forward-looking stress test. The EBA has developed a common methodology which is used by all EU supervisory authorities to ensure that the main **EU banks are all assessed against common assumptions, definitions and approaches**. Macroeconomic scenarios relevant to the entire EU single market, developed by the ESRB and reflecting key risks outlined in this report, are being applied to assess the impact that changes in the economic environment have on EU banks. The common methodology and underlying assumptions of the EU-wide stress test cover a **wide range of risks, including credit and market risks, exposures towards securitisation, sovereign and funding risks**. The EBA will act as a data hub for the extensive transparency of the results of the common exercise.

For banks in the euro area, the EU-wide stress test is part of the **comprehensive assessment (CA)** that the ECB has been undertaking prior to assuming responsibility for banking supervision under the Single Supervisory Mechanism (SSM) in November 2014. The CA is comprised of two pillars: an **AQR** to enhance the transparency of bank exposures by reviewing the quality of banks' assets, including the adequacy of asset and collateral valuation and related provisions, and the **EU-wide stress test**. The **goals of the CA of the ECB are three-fold**: (i) **transparency** — enhancing the quality of information available on the condition of banks; (ii) **repair** — identifying and implementing any necessary corrective actions; and (iii) **confidence building** — assuring all stakeholders that banks reviewed are fundamentally sound and trustworthy. The CA will be based on a capital benchmark of 8% Common Equity Tier 1 (CET1), including transitional arrangements, for both the AQR and the baseline stress scenario in the stress test. The capital benchmark for the adverse scenario is set at 5.5% CET1. The results of the EU-wide stress test and the CA will be **published together in October 2014**.

In the insurance sector, **EIOPA conducts an EU-wide stress test comprising two independent blocks**: a **core module** and a **low-yield module**. Both modules use a consistent stress test methodology and apply Solvency II market-consistent valuation to assess the immediate impact of instantaneous shocks, but there is no additive property to the two pieces (i.e. the core and low-yield module). The **first block includes two types of independent stresses: financial market scenarios and insurance-specific shocks**. Two adverse financial market scenarios were prepared in cooperation with the ESRB, taking as its starting point a sudden rise in the global risk aversion. This triggers a worldwide shock to asset prices such as government and corporate bond prices, equity prices and real-estate prices which are assumed to propagate quickly to other financial markets. The sovereign debt crisis in the euro area would be aggravated, with the spread of all euro-area government bonds widening in relation to the SWAP rates, albeit with differences across countries. Sovereign-yield spreads outside the euro area would also widen. Tightening credit conditions, in combination with rising unemployment and weakened domestic demand is assumed to result in a steep fall in real-estate prices, and an accommodative monetary policy is assumed to push SWAP rates below current low levels. The insurance-specific shocks related to **longevity, mortality, catastrophes and lapses** will impact liabilities only and are articulated as independent stresses

The second block is a low-yield module designed to help assess the impact of persistently low interest rates. The module includes a long-lasting low-yield scenario with low rates for all maturities, and a scenario with a reverse-shocked interest rate curve (i.e. upwards shock for short-term maturities and downward shock for mid- and long-term maturities) employed to assess unanticipated effects on asset and liability values, matching and cash flows. The publication of the final report is foreseen for November 2014.

1.3 RISKS STEMMING FROM GLOBAL EMERGING MARKETS ECONOMIES

Despite occasional bouts of severe volatility linked to developments in specific countries (Argentina, Ukraine but also in systemically important China), overall **sentiment towards most emerging markets appears to have stabilised** over the past six months.

The fear of a generalised capital flight from the emerging market asset class triggered by the Federal Reserve ‘tapering’ announcement one year ago proved exaggerated, at least to date. In fact, following the sharp depreciations and asset price declines observed towards mid-2013 and again in January 2014, emerging market economies (EME) appear to have widely stabilised, including those which were at some point more vulnerable (e.g. Brazil, India, Turkey). Investors appear to have gradually returned to those markets. However, the recovery in market valuations has recently been very pronounced and may raise questions about its ultimate drivers and the sustainability of current price levels.

In this context, EMEs appear to have continued to adjust to a ‘new normal’ which will entail progressively tighter global financial conditions, a rebalancing and growth slowdown in China, and the recent calming down of commodity price fluctuations. For most EMEs, this transition is likely to imply lower growth rates in coming years than those seen in the recent past. The **transition may further pose significant risks**, if the adjustment is abrupt or is compounded by interactions with other factors, and downside risks for EME remain.

Since 2008, European banks have reaped the benefits of their **geographical diversification into emerging markets**, which outperformed advanced economies during and in the immediate aftermath of the global financial crisis. If economic conditions were to deteriorate in EMEs, the balance sheets and profits of European banks in those countries would be negatively affected, and exchange rate volatilities could add to that effect. Nevertheless, improvement in the euro area and UK domestic economic conditions should partially offset those potential losses.

Financial linkages through European financial institutions to emerging markets (developing countries, following BIS definition) are substantial, (over USD 3.2 trillion in aggregate) and pose a potentially significant transmission channel of EME risks into Europe. According to BIS figures on the aggregate external exposures of international banks, frequently used as a proxy indicator for the external risk exposure of banks, the largest exposures of the European banking system are towards China, Brazil, Mexico and Turkey. However, the assessment of external risks may benefit from differentiating between different types of exposure (for instance, cross-border lending versus subsidiaries’ local claims), recognising the heterogeneities of national exposures, which are sometimes concentrated on individual counterparties, and accounting for their funding patterns (local funding versus inter-office company loans). A subsidiary structure, being subject to capital requirements in the host country, and obtaining most of its funding in local markets, could partially mitigate the risks of contagion for the parent company.

Financial market confidence may pose another significant channel for the transmissions of EME risks into Europe. An episode of EME turbulence in May 2013 pointed to excessive risk-taking in and overvaluation of EME markets. Potentially declining asset prices and widening market spreads in EME going forward risk adversely affecting European markets. Also, increasing **trade with EME**, although beneficial itself, may generate a negative spill-over into important European economies, if there were to be pronounced economic slowdowns in major EME trade partners.

The ongoing **EBA EU-wide stress test** reflects **systemic risks related to EMEs in its methodological components**. The adverse stress scenario includes an increase in global bond yields amplified by an abrupt reversal in risk assessment, especially towards EMEs, and a further deterioration of credit quality in countries with feeble demand.

As already mentioned, weak growth in domestic sales has forced many insurance companies to bolster their expansion outside national boundaries. **Both life and non-life companies are increasingly focusing on emerging markets with higher growth opportunities**. Empirical analysis carried out by EIOPA suggests that firms are expanding into new markets when economic growth abroad is significantly higher than at home. Despite a modest recovery in Europe, the latest EIOPA projection using the IMF’s World Economic Outlook suggests a further increase in the share of premiums written abroad. Although emerging markets may offer more immediate opportunities to non-life companies offering e.g. house ownership protection and motor insurance, life insurers are also in a position to increase revenues in these markets as life expectancy and wealth accumulation improves. Such expansion may allow a diversification of the insurance lines written and provide the possibility to widen the product portfolio in markets that are relatively underpenetrated. However, it also **poses new challenges in terms of risk management, new product developments and group supervision**.

In addition to risks stemming from global EME, **the potential heightening of geopolitical risks in some global regions**, in particular in Ukraine and Russia, may pose **further risks for European financial institutions** through various transmission channels.

2 OPERATIONAL RISKS

2.1 BUSINESS CONDUCT RISK

Conduct risk refers to risks relating to the way in which a firm and its staff conduct themselves, and includes matters such as how consumers are treated, how products are designed and brought to market, remuneration of staff, and how firms deal with conflicts of interest or resolve similarly adverse incentives. A wide variety of particular conduct risks can originate from misalignments with a number of regulatory requirements governing conduct of institutions in these areas including, among others, the mis-selling of financial products, the manipulation of financial markets, breaches of best execution principles, irresponsible lending and violations of anti-money laundering rules or trade sanctions.

The rising scope and number of detrimental incidents around those risks as well as the **considerable financial and reputational damages they might cause**, indicate a need for many institutions to **enhance corporate governance, including management functions, compliance proceedings and management risk culture**. Institutional governance arrangements often falls short of identifying conduct-of-business concerns, and a need to better integrate conduct-of-business concerns in institutional governance arrangements has been identified.

With respect to the conduct of business, there is a link between conduct risk and governance. Therefore, conduct risks should clearly not be solved by means of additional capital requirements alone. Financial institutions should be encouraged to avoid simply factoring in possible fines for misconduct in their prices and continuing without internal reforms. The ultimate responsibility for conduct-of-business matters lies with the institutions' board members.

However, due to their relevance and to the potential for further supervisory action, **this report focuses on two specific conduct-of-business risks: the mis-selling of products and concerns around financial benchmarks.**

Mis-selling of financial products

Financial markets are characterised by a number of factors, which sometimes **misalign consumer and firm interests**, including: a **business culture** in which the priority is not always oriented towards the interests of consumers, increasingly **complex investment products** in which the associated costs and risks are not always clear, the design and bringing to market of products that do not meet consumers' needs and interests, inherent **information asymmetries**, and conflicts of interest which are particularly evident in incentive structures and remuneration arrangements.

These factors came to the fore with the advent of the crisis which resulted in inappropriate firm behaviour and **significant mis-selling**. Further examples of this behaviour include the **inadequate promotion and 'self-placement'** of financial instruments by banks, i.e. the attempt to sell own liabilities to existing investors and/or own depositors or policy holders which exposed them to certain risks such as being more likely to bear first losses or to be subject to a possible bail-in. Some of these practices persist and continue to unsettle investor confidence¹⁰, even if lately some trust in the providers of investment products has been restored.¹¹

The above practices often **expose consumers to unperceived risks**, such as credit or market risk, which lead to sustained and unexpected losses and **firms to reputational and litigations risks**. Therefore, the promotion of investor and consumer confidence in financial markets is a primary objective both at an EU and global level, with the aim of re-establishing and maintaining financial stability, in addition to reducing individual consumer detriment.

The international commitment to this objective recognises the critical role that consumer confidence plays in ensuring functioning financial markets. In this regard, there is a necessary and increasing focus, from a financial stability perspective, on business conduct and the suitability of products (e.g. the type of products sold and to whom they are sold)¹².

¹⁰ The European Commission's Consumer Scoreboard for December 2012 noted that financial services markets in the European Union rank consistently low in terms of consumer satisfaction/trust, see http://ec.europa.eu/consumers/consumer_research/editions/cms8_en.htm

¹¹ According to the European Commission's DG SANCO Market Monitoring Survey, the level of trust that financial suppliers respect the rules and regulations protecting consumers increased, sometimes markedly, in 50% of Member States, while in the other jurisdictions, except for few outliers, decreases were moderate.

¹² The Financial Stability Board (FSB) recommends that regulatory focus also addresses a firm's overall conduct risk ('culture'). To step-up regulatory oversight of a firms' risk culture, monitoring should focus on four main indicators: (i) senior management demonstration of

EU policy makers have taken a number of steps to **address the risk of mis-selling**. The review of **MiFID will strengthen investor protection in multiple areas** including the appropriate management of conflicts of interest by product manufacturers and distributors, product design, distribution rules and the assessment of investment suitability for investors. In addition, ESMA's contribution to the development of the MiFID II implementing measures will aim, in line with the objectives set by the newly agreed legislation, to reduce the effect of inadequate incentives in the sale of financial instruments and to require manufacturers and distributors to take into account risk and cost elements in the design and distribution of products, which requires the adequate consideration of the characteristics of the intended target market and the needs of individual investors in the provision of specific services. The ESMA technical advice to the Commission will also cover the implementation of the strengthened MiFID II regime on investment advice, as well as the provision of information to clients on inducements. Across all sectors, the implementation of the legislative package on PRIIPs, which is being developed jointly by all three ESAs, aims to improve the protection of retail investors through better transparency and comparability of information about investment products.

In addition to this regulatory work, the three **ESAs carried out work on product oversight and governance (POG) processes for manufacturers**. The ESAs assessed the extent to which consumers across the banking, insurance and securities markets have experienced, or are at risk of experiencing, detriment as a result of the failure of manufacturers to oversee and govern the development and marketing of their products. As a result, the ESAs published a Joint Position on Manufacturers' Product Oversight and Governance Processes.¹³ The eight high-level principles in the Joint Position stress the importance of the controls that manufacturers should put in place before launching their products, discouraging products and services that may cause consumer detriment entering the market and ultimately enhancing consumers' confidence in financial markets. In particular, they highlight that the design of financial products and services can pose risks to consumers when the intended target market is not identified correctly. Based on these principles, the **ESAs will undertake further work on product governance and distribution**.

For example, ESMA's technical advice will include requiring manufacturers and distributors to take into account risk and cost elements in the design and distribution of products, requiring adequate consideration of the characteristics of the intended target market and the needs of individual investors in the provision of specific services.

In the banking sector, the EBA will use the principles to develop more detailed requirements for the oversight and governance of retail banking products, i.e. mortgages, personal loans, debit/credit cards, savings products, payment accounts, payment services and electronic money. The requirements will cover manufacturers' internal control functions, the identification of target markets, product testing, product monitoring, remedial actions and distribution channels. The EBA is also implementing various mandates under the Payment Accounts Directive (PAD), which aim to enable consumers to have better access to, and to compare the costs between, payment accounts, which will further reduce the potential for mis-selling in the banking sector.

In the insurance sector, EIOPA is developing Guidelines on product oversight and governance arrangements by insurance undertakings. Relevant provisions may also be included in any future legislative act replacing the Insurance Mediation Directive (IMD II) which addresses distributors of insurance products as well. More specifically, EIOPA's contribution to implementing measures for the IMD II to tackle conflicts of interest will aim to reduce the risk of mis-selling insurance-based investment products.

Furthermore, the three **ESAs, through the Joint Committee, are drafting guidelines to address the risks** posed by **cross-selling** and have addressed the **activity of self-placement**. In particular the ESAs' analysis has resulted in a 'Reminder to financial institutions', reminding firms of their responsibilities when placing their own financial products with customers and of several existing requirements to protect investors when services relating to financial instruments are being provided.¹⁴ The ESAs noted that the loss-bearing features of many self-placement products expose consumers to significant risks that do not exist for most other financial instruments, such as the risk of having to share losses (risk of bail-in). Furthermore, these products often lack fully harmonised structures, trigger points and loss absorption, making it difficult for consumers to compare them with other financial products and to fully comprehend what they are buying.

Risks related to key benchmarks in the EU

firm's core values and risk culture ('tone from the top'); (ii) employee-wide accountability; (iii) a culture of effective challenge within the firm; and (iv) remuneration structures in line with improved risk culture.

¹³ See <http://www.eba.europa.eu/-/eba-eiopa-and-esma-publish-joint-position-on-product-oversight-and-governance-processes>

¹⁴ See <http://www.eba.europa.eu/-/the-joint-committee-of-the-esas-reminds-financial-institutions-of-their-responsibilities-when-placing-their-own-financial-products-with-consumers>

The **integrity** and **continuity** of key financial benchmarks in the EU remains a concern for ESMA, EBA and EIOPA as well as national competent authorities.

The alleged manipulation of interest-rate benchmarks and other widely used indices **potentially affects the integrity and reliability of price signals for a large volume of financial contracts and assets** traded in both wholesale and retail markets. **Ongoing investigations** into the potential manipulations of **interbank interest reference rates, derivatives prices, oil price benchmarks, the gold benchmark and exchange rates** are being carried out by competent authorities in the EU and elsewhere.

With respect to Euribor, it is worth noting that the dispersion of submitted quotes increased around mid-2013, i.e. following the issue of Recommendations and Principles by EBA, ESMA and IOSCO. Dispersion has remained elevated ever since, although it has weakened somewhat over time¹⁵. **Enhanced governance and submission rules at administrator and panel bank level** provide some assurance that the quality and reliability of contributions has improved.

Meanwhile, administrators of key interest reference rates have made significant progress in **enhancing the governance, transparency and reliability of their benchmarks** as also recently highlighted by IOSCO¹⁶. Wider reform measures are also being discussed at FSB level¹⁷, which propose addressing the issues related to transitioning from existing to reformed benchmarks in a non-disruptive manner.

Operationally, the **continuity of submission panels of certain interbank reference rates** remains a key risk concern. While most interest benchmark panels have remained stable since the last risk report, the Euribor experienced further withdrawals and the Eonia Swap Index was discontinued as of 1 July 2014. Risks of non-viability are elevated in particular in the case of Euribor, where a legal framework that includes a power to compel submitting banks is currently being negotiated by the co-legislators. The number of contributors to the Euribor panel dropped from 31 to 26 banks in the first half of 2014. The decline coincides with the introduction of enhanced rules for panel banks, by which the administrator seeks to ensure a minimum level of quality and the reliability of individual contributions to the benchmark.

A wide range of counterparties are exposed to IBOR-referenced contracts, both on the asset and liabilities side of their balance sheets. **Key risks from the discontinuation of benchmarks** include **contract continuity and the inability of market participants to value outstanding contracts and collateral, with potential knock-on effects on price and liquidity in both derivatives and lending markets**. Euribor is also used as a reference rate for millions of variable rate mortgages in the EU and its discontinuity or lack of reliability could have a large impact on the banking sector, consumers and market confidence.

¹⁵ See ESMA (2014), Report on Trends, Risks and Vulnerabilities No 2, 2014, p. 42. Forthcoming.

¹⁶ See <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD444.pdf>

¹⁷ See http://www.financialstabilityboard.org/publications/r_140722.pdf

2.2 IT-RELATED OPERATIONAL RISK AND CYBER RISK

Concerns over the persistence, intensity and sophistication of **information technology (IT) related operational risks and cyber risks at financial institutions have increased** since the last risk report. At EU level, the European Commission has emphasised cyber risk as a major risk area.¹⁸

Banks are reported to have been hit by cyber-attacks and other malicious attacks more frequently, and have seen an increase in high-profile distributed denial of service (DDoS) and outages. Industry surveys indicate that, more than half of the world's biggest banks websites have been hit by security incidents in the past eight years, and the **financial sector attracts more cyber-crime compared to other industries**.

Accordingly, both market participants and authorities have stepped up **efforts to address these risks**. Most institutions¹⁹ are responding to growing IT-related operational risks, taking actions that include **increased spending on IT security and resilience, and strengthening governance and business continuity plans**. Institutions have to cover IT risks in their operational risk management. However, supervisors should caution whether this general perspective captures relevant risks adequately. In practice, **firms need professional and operational IT risk and security management**, which plans, implements, checks and adapts the IT security controls and informs operational risk management about specific IT risks. Moreover, subdued profitability across sectors and pressures to reduce costs persist and risk compromising efforts to attain increased resilience against IT-related operational risks. It is important in such an environment to ensure that IT systems and related internal controls are safeguarded against budgetary pressures and remain robust. A strong, professional risk culture which can swiftly react to new threats and deliver appropriate levels of employee awareness about evolving risks is needed. **Supervisory authorities** have also intensified their activities related to CERT (Computer Emergency Response Team) in many countries and organisations. In the UK, for instance, authorities have initiated a framework, CBEST, to deliver controlled, bespoke, intelligence-led cyber security tests, which was publicly launched in June. The tests replicate behaviours of threat actors assessed by government and commercial intelligence providers as posing a genuine threat to systemically important financial institutions. The technical information security industry is also involved in CBEST²⁰.

However, IT risks in banks and other financial institutions do not yet appear to be sufficiently understood. **Institutions should give increased priority to related risks and reinforce IT controls and audits covering all parties along the value-added chain of IT (e.g. IT-service providers, third-party providers and IT-outsourcing providers)**.

It also appears that these risks are not yet recognised amongst supervisors, who should factor the mitigation of IT-related risks into regular risk assessments, including IT inspections with the necessary scope and depth. Supervisors are encouraged to **ensure that banks, insurers, investors and other market participants devote sufficient resources and due care in the proper management of their digital environment and risks**. There is also a need for **improved cross-border cooperation within the EU**, especially since the scale of the IT problems often exceeds the domestic scene and coordinated efforts are often necessary to mitigate or treat IT risks.

At the same time attention must be paid to the fact that **redress and litigation costs** as the consequences of materialised cyber-related threats can be high. These potential costs should be adequately provisioned or covered by financial institutions.

In fact there is an increasing interest by companies to insure against such risks, and by insurers to underwrite insurance against cyber-attacks. Currently, the **market for cyber insurance policies** is not well developed, and seems to consist of relatively customised policies dominated by a few big insurance providers. Not all cyber-protection policies cover litigation and redress costs for instance, partly because it is difficult to establish a correct pricing for such products due to the lack of data. However, several insurance companies, including some European companies, are positioning themselves both with research reports or through product offering in this market, and sales of such policies are expected to grow in the coming years. Some products that are already on the market cover protection against involuntary breach of privacy regulations and against claims for damages made by third parties if customer data is lost or made public. Even the costs of notifying customers, hiring public relations consultants, and loss of revenue can be covered in some policies. Supervisors need to ensure that they have **adequate expertise available to assess the details of these policies** and to evaluate the provisioning by companies for future losses.

¹⁸ European Commission sees large scale cyber-attacks as one of the main challenges to EU in the field of security. See, for example, 'Europe's future security challenges' http://europa.eu/rapid/press-release_IP-14-693_en.htm.

¹⁹ As implied by the June 2014 EBA risk assessment questionnaire.

²⁰ See more on CBEST and UK initiative <http://www.bankofengland.co.uk/financialstability/fsc/Pages/cbest.aspx>