Overview

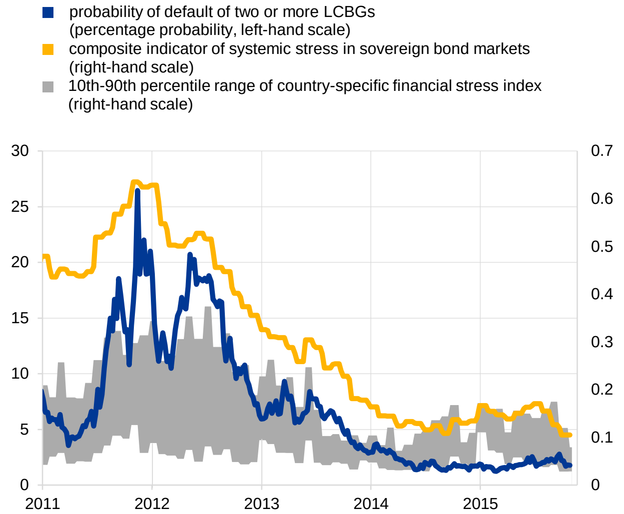
The euro area financial system weathered challenges on several fronts in the second half of the year. Most notably, higher political risks surfaced early in the summer surrounding negotiations about a new Greek financial assistance programme while, later in the summer, global and euro area stock markets suffered a spillover from a correction in Chinese stock prices. The impact on the euro area financial system of these developments has been relatively contained, with standard indicators of bank, fiscal and financial stress remaining at low levels (see **Chart 1**).

Chart 1

Bank, fiscal and financial stress has remained contained in the euro area

Financial stress index, composite indicator of sovereign systemic stress and the probability of default of two or more banking groups

(Jan. 2011 – Nov. 2015)



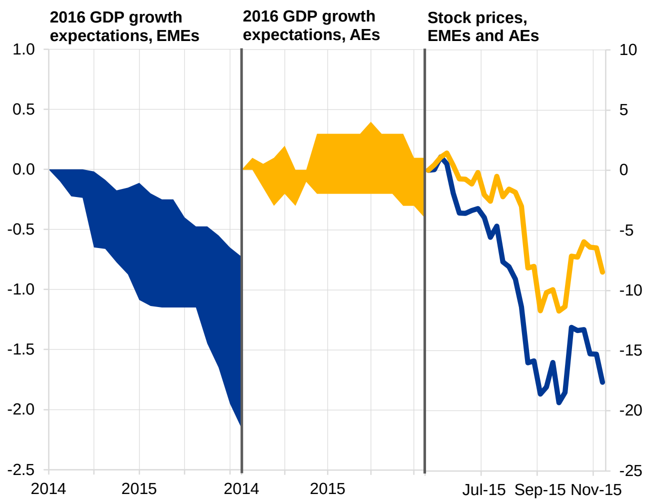
Sources: Bloomberg and ECB calculations.
Notes: "Probability of default of two or more LCBGs" refers to the probability of simultaneous defaults in the sample of 15 large and complex banking groups (LCBGs) over a one-year horizon. The financial stress index measures stress in financial markets at the country level based on three market segments (equity, bond and foreign exchange) and the cross-correlation among them. For details, see Duprey, T., Klaus, B. and Peltonen, T., "Dating systemic financial stress episodes in the EU countries", *Working Paper Series*, ECB (forthcoming). For details of the composite indicator of sovereign systemic stress, see Section 1.2.

Chart 2

Similarities in stock price movements across economic regions, despite a decoupling of economic growth expectations

Changes in 2016 GDP growth expectations and stock price developments for emerging market and advanced economies

(monthly data May 2014 – Oct. 2015 (for GDP expectations); weekly data May 2015 – Nov. 2015 (for stock prices); percentages per annum)



Sources: Thomson Reuters Datastream, Bloomberg and ECB.
Notes: Interquartile range for emerging market economies (EMEs), min.-max. for advanced economies (AEs). EMEs consist of China and the most significant oil-exporting EME economies (Russia, Chile, Argentina, Indonesia, Brazil, South Africa, India, Thailand, Mexico, Turkey and the Philippines). Advanced economies consist of the United States, the United Kingdom, the euro area and Japan.

Occasional bouts of financial market volatility suggest that vulnerabilities stemming from emerging markets are increasing. Of particular concern is the outlook for China, given its growing role in the world economy. Turmoil in Chinese and other emerging market economies' equity markets in August led to a strong and broad spillover around the world, including to the euro area. This strong global co-movement of equity prices does not appear to have been solely driven by macroeconomic fundamentals. Indeed, there has been a notable divergence of real economic growth prospects between the advanced and emerging economies (see **Chart 2**). This suggests that an important driver of the falls in advanced economy stock markets was a rise in the global equity risk premium, triggered by uncertainties about Chinese economic growth prospects.

Financial stability concerns have been increasing generally across a number of emerging market economies. In contrast to the Asian crisis in the late 1990s, most emerging market economies now have smaller macro-financial imbalances, stronger macroeconomic policy frameworks, more flexible exchange rate regimes and larger buffers (particularly substantial foreign exchange reserves). However, macroeconomic fragilities are still present and elevated growth in private sector credit (partly denominated in foreign currencies) in several economies signals increased risks for the financial system down the road. In particular, highly indebted foreign-currency borrowers may be vulnerable to a prospective normalisation of financial conditions in the United States and other advanced economies.

Table 1

Key risks to euro area financial stability

pronounced systemic risk medium-level systemic risk potential systemic risk	Current level (colour) and recent change (arrow)*
Abrupt reversal of compressed global risk premia amplified by low secondary market liquidity	⇧
Weak profitability prospects for banks and insurers in a low nominal growth environment, amid incomplete balance sheet adjustments	⇨
Rising debt sustainability concerns in the public and non-financial private sectors amid low nominal growth	⇨
Prospective stress in a rapidly growing shadow banking sector, amplified by spillovers and liquidity risk	⇧

* The colour indicates the cumulated level of risk, which is a combination of the probability of materialisation and an estimate of the likely systemic impact of the identified risk over the next 24 months, based on the judgement of the ECB's staff. The arrows indicate whether the risk has increased since the previous FSR.

Euro area banks have limited direct exposure to emerging market economies outside Europe. This should temper spillovers across financial institutions stemming from deteriorating macro-financial conditions in these economies. At the same time, the rapidly growing euro area investment fund industry has been gradually broadening its exposure to emerging markets, while at the same time developments in China and other large emerging market economies have become important drivers of global confidence. Partly as a result of increased vulnerabilities stemming from emerging markets, the risk of an abrupt reversal of global risk premia is increasing (see **Table 1**).

The domestic challenges which remain in the euro area are in many ways a legacy of the bank and sovereign debt crises. The euro area banking system continues to be challenged by low profitability amid a weak economic recovery, while many banks' return on equity continues to hover below their corresponding cost of equity. This, combined with a large stock of non-performing loans in a number of countries, is constraining banks' lending capacity and their ability to build up further capital buffers. In the first half of 2015, however, both the profitability and the solvency positions of banks have improved somewhat. Looking ahead, banks may need to further adjust their business models to cope with persistently weak economic conditions, along with an environment of historically low interest rates across the maturity spectrum.

Increasingly, financial stability risks stretch beyond traditional entities such as banks and insurers. The shadow banking sector continues to expand robustly at the global (and euro area) level. With the rapid growth and interconnectedness of this sector, in particular the investment fund industry, vulnerabilities are likely to be accumulating below the surface. The euro area investment fund industry has not only continued to grow, there are also signs that funds are taking on more risk on their balance sheets. In addition, a more widespread use of synthetic leverage and the increasing prevalence of demandable equity imply that the potential for a systemic impact is increasing, should the investment fund industry come under stress.

Beyond financial vulnerabilities, real economy risks also prevail. High sovereign and private sector debt in several euro area countries remains a potential systemic risk. Debt sustainability challenges remain for euro area sovereigns, in particular on account of the downside risks to the economic outlook coming from higher macro-financial vulnerabilities in some emerging economies. Debt concerns also prevail within the private sector. Corporate sector debt remains particularly elevated in the euro area compared with other advanced economies.

In this environment, there are four key sources of risk for euro area financial stability over the next two years. These risks, while tied to distinct scenarios of prospective financial stability stress, are clearly intertwined and would, if they were to materialise, have the potential to be mutually reinforcing. Indeed, all risks could be aggravated by a materialisation of downside risks to nominal economic growth.

Risk 1: Abrupt reversal of compressed global risk premia amplified by low secondary market liquidity

Over the past few years, valuations have been pushed higher across a number of asset classes. This has resulted from a combination of subdued nominal economic growth, an unusual confluence of exceptionally accommodative monetary policies around the world to support recovery from the global financial crisis, and investors' increased willingness to take on risk. Over the past six months, however, the favourable financial market sentiment in the euro area was temporarily interrupted by periods of rising risk aversion, which contributed to an increase in equity price volatility and a widening of corporate bond spreads.

Misaligned asset prices are a key vulnerability in that they could potentially lead, at some point, to sharp adjustments of risk premia. So far, however, signs of broad-based stretched valuations are not evident in the euro area. Low sovereign bond yields are consistent with the persistently subdued nominal growth environment and reflect measures taken by the Eurosystem in the wake of unparalleled risks of a protracted period of low inflation. As regards traditionally riskier asset classes, valuation metrics of euro area corporate bonds and equities appear to be broadly in line with or close to their respective norm. On the real estate side, valuation estimates for the euro area as a whole suggest that residential property prices are slightly below the average valuations of the last decades, but have departed further away from their long-term average for prime commercial property amid continued strong price increases. That said, there is significant country heterogeneity regarding deviations of real estate valuations from estimated equilibrium values in the euro area.

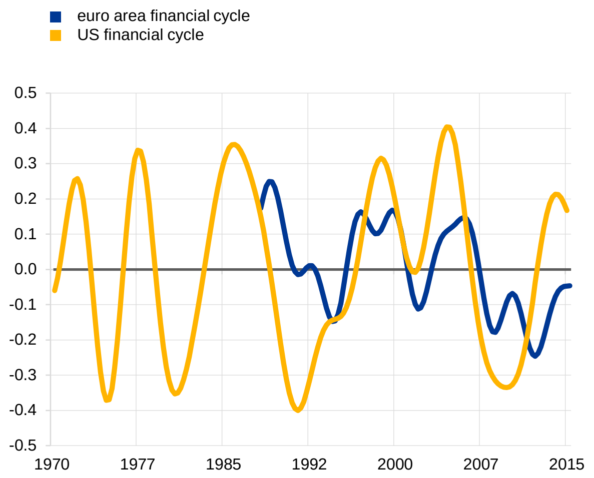
Estimates of the state of the financial cycle for the euro area remain subdued (see **Chart 3**). Such estimates – encompassing developments in private credit, as well as in main asset market segments – would not support the view of a credit-driven asset price boom in the euro area. Financial cycle estimates for the United States were more elevated through the middle of the year, partly as a result of slightly higher equity price valuations and stronger credit demand.

Chart 3

Financial cycle estimates for the euro area do not signal a credit-driven asset price boom

Financial cycles in the euro area and the United States

(Q2 1970 – Q2 2015; normalised scale; euro area series starts in Q2 1988; y-axis: normalised deviation from historical median)



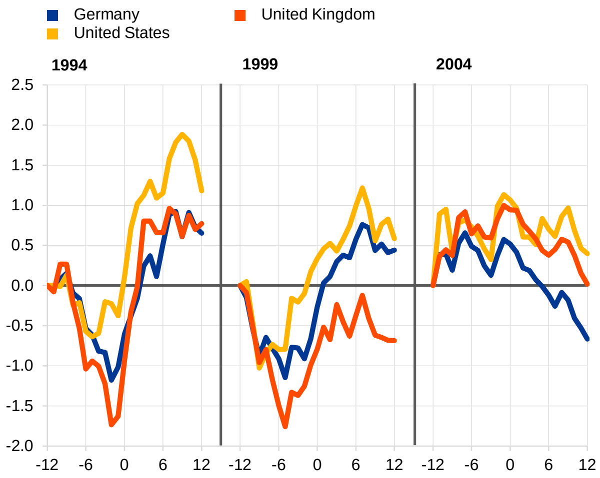
Sources: Bloomberg and ECB calculations.
Notes: The financial cycle is a filtered time-varying linear combination emphasising similar developments in underlying indicators (total credit, residential property prices, equity prices and benchmark bond yields). See Schüler, Y., Hiebert, P. and Peltonen, T., "Characterising the financial cycle: a multivariate and time-varying approach", *Working Paper Series*, No 1846, ECB, 2015. For the US, the last available data point is Q1 2015.

Chart 4

Global long-term bond yields tend to rise during phases of tightened monetary policy – but exceptions exist

Changes in advanced economies' long-term bond yields around periods of US monetary policy tightening

(percentage points; monthly observations; the x-axis represents the 12 months before and after the three tightening cycles started)



Sources: Bloomberg and ECB calculations.

Developments in euro area bond markets are likely to continue to be influenced by policy settings around the globe. In particular, the Eurosystem's expanded asset purchase programme – intended to be carried out until at least September 2016 – will, beyond its support of price stability, probably dampen possible upward pressure on euro area bond yields. Nonetheless, a faster than expected withdrawal of monetary policy accommodation in other major advanced economies could trigger a reversal of global term premia, which may also spill over to the euro area. Experience from the three previous significant monetary policy tightening cycles in the United States, albeit with distinct structural driving factors, shows that bond yields increased strongly in advanced economies in 1994 and 1999, but fell in 2004 (see **Chart 4**).

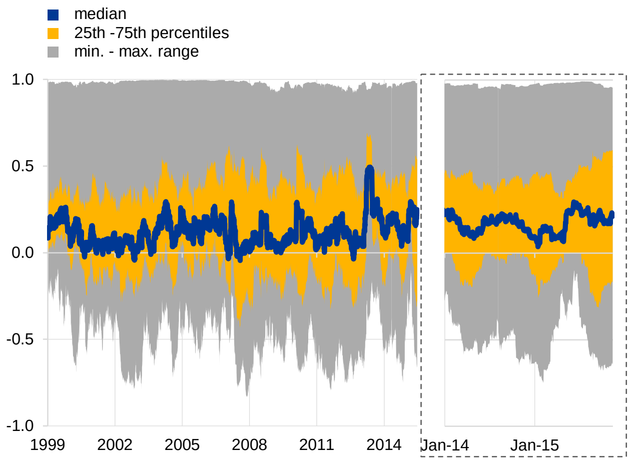
The impacts that China, in particular, had on advanced economies' financial markets during the summer point to the need for close monitoring going forward. The August turmoil can, to some extent, be compared with previous bouts of volatility observed over the last years, including the "taper tantrum" in the summer of 2013, the US Treasury "flash crash" in October 2014 and the recent Bund sell-off in May 2015. These events have some common denominators: market liquidity may be too low to absorb swift changes in market sentiment and higher levels of correlated trades may have amplified the magnitude of sell-offs. These two issues are tackled below.

Chart 5

Stronger co-movement across financial asset classes – a symptom of herding and search-for-yield behaviour

Dispersion of pair-wise correlations between global asset classes over a 90-day rolling window

(Jan. 1999 – Nov. 2015; median and quartiles)



Sources: Bloomberg, Merrill Lynch and ECB calculations.
Notes: Calculations are based on pair-wise correlations between daily total returns of US, euro area and emerging market stock, sovereign bond, investment-grade corporate bond and high-yield corporate bond indices.

While risk premia remain compressed, there is a concern that low market liquidity may amplify potential corrections in asset prices. Indicators presented in the May 2015 Financial Stability Review suggested a significant deterioration of liquidity conditions in secondary fixed income markets. The strong increase in global equity market volatility over the past six months, coupled with a surge in the number of measures that had to be employed by major stock exchanges in late August to avoid substantial price movements, has raised questions about market functioning also for this segment. Furthermore, it remains unclear how evolving market microstructure, and in particular the trading venues with no pre-trade transparency requirements – so-called "dark pools" – have impacted equity market liquidity conditions (see **Box 4**).

Stronger co-movement across financial asset classes needs to be closely monitored as it may have repercussions on financial stability. On the one hand, it may be a symptom of herding behaviour on the part of investors. As a result, when a shock hits the system, too many investors try to sell the same assets simultaneously, resulting in elevated volatility. On the other hand, higher correlations between financial assets may be a cause of herding behaviour, as they make diversification less profitable and investors may thus be pushed to take on more risk, which at some point can become excessive. Looking at the pair-wise correlations across a broad set of global asset classes, one-directional moves in financial prices across asset classes have indeed become more common over the past two years (see **Chart 5**).

On the policy side, while monetary policy will continue to preserve price stability, possible country, sector and institution-specific challenges suggest a strong role for macroprudential policy in bolstering systemic resilience and curbing financial cycles.

Risk 2: Weak profitability prospects for banks and insurers in a low nominal growth environment, amid incomplete balance sheet adjustments

The euro area banking system continues to struggle with low profitability, while euro area insurers also face challenges in a low-return environment. Despite some increases observed in recent quarters, many banks' return on equity continues to hover below their corresponding cost of equity despite some recent narrowing of this gap. The profitability of the banking sector is being hampered by a number of challenges, two of which predominate. First, the low nominal growth and low interest rate environment makes traditional banking activities such as retail lending using maturity transformation less profitable. Likewise, insurers in some countries face challenges, in a low-return environment, especially in the life insurance business where there are pressures to ensure that returns are sufficient to maintain guaranteed returns to policyholders. A second challenge specific to banks relates to the large stock of legacy problem assets, particularly in the countries that were most affected by the financial crisis. These problem assets remain an important obstacle for banks to provide new credit to the real economy. In some countries, improvements have been made in the legal framework for resolving non-performing loans. That said, progress in writing off and/or disposing of non-performing loans remains moderate when measured against the stock of such loans.

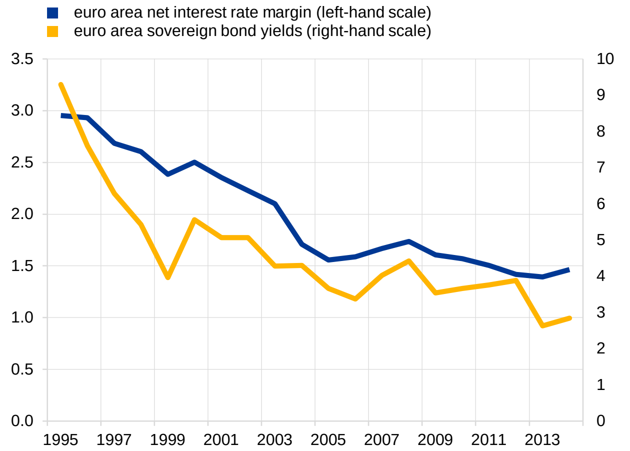
While remaining subdued, a recent moderate improvement in profitability (combined with continued improvements in solvency positions) has been evident. The slightly higher profitability reported by banks in the first half of 2015 reflected an increase in non-interest income, a decline of loan loss provisions from historically high levels, as well as decreasing funding costs which outweighed the negative impact of asset yield compression and higher operating costs. The improvement in bank profitability was broad-based, also extending to banks in countries most affected by the financial crisis.

Chart 6

The low interest rate environment over the past two decades has contributed to lower interest income

Euro area ten-year sovereign bond yields and the net interest rate margin for large euro area banks

(1995-2014; percentage points)



Sources: Thomson Reuters Datastream and ECB calculations.
Notes: The net interest margin is defined as the net interest income over total assets. Weighted average (using total assets) of 66 euro area banks.

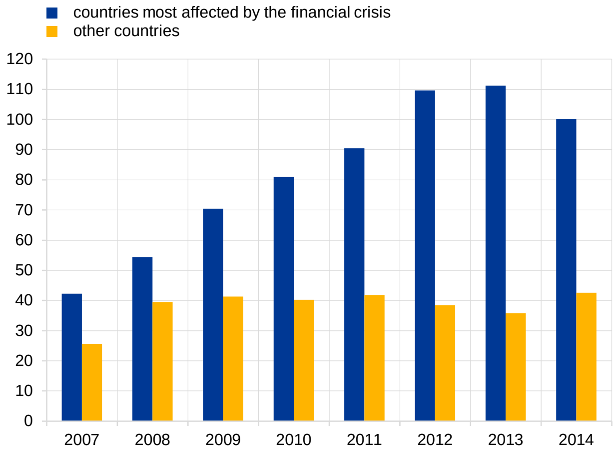
Over the past two decades, interest rates in most advanced economies have fallen with strong implications for banks' interest revenues. Looking back, part of the fall in interest rates was a reflection of the "Great Moderation" where the volatility of business cycle fluctuations was reduced starting in the mid-1980s. In the past few years, the downward trend in interest rates has accelerated as an unprecedented level of support by central banks for the real economy was needed in the aftermath of the severe crisis. As for the euro area, in parallel with a low interest rate environment, banks' net interest income has also fallen (see **Chart 6**). Indeed, interest revenues are typically more interest rate sensitive than expenses, particularly in a low interest rate environment where bank deposit rates tend to be constrained by the zero lower bound (see **Box 5**).

While nominal growth prospects are expected to remain subdued over the next years, euro area interest rates will probably remain low and yield curves relatively flat. This could challenge banks' traditional source of profitability in the maturity transformation business. While some banks may be flexible enough to cope with this environment, a number of banks may need to adjust their business mix towards activities that rely less on traditional interest income-generating business.

Chart 7
Banks with high non-performing loans have limited buffers against further credit losses

Ratio of non-performing loans to tangible equity and loan loss reserves for euro area significant banking groups

(2007-2014; percentages; median values)

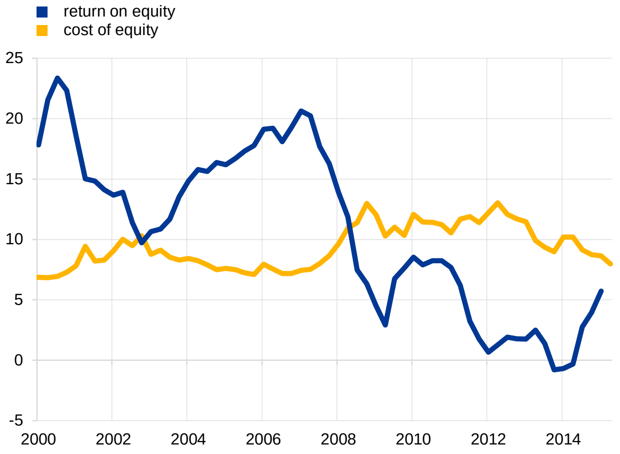


Source: SNL Financial.
Notes: Based on publicly available data for a sample of significant banking groups. Countries most affected by the financial crisis are Cyprus, Greece, Ireland, Italy, Portugal, Slovenia and Spain.

Chart 8
Albeit declining, the gap between euro area banks' cost of equity and return on equity is considerable

Cost of equity and return on equity for a large sample of listed euro area banks

(Q1 2000 – Q3 2015; percentage points)



Sources: Bloomberg, Thomson Reuters Datastream, Consensus Economics and ECB calculations.
Notes: Based on the weighted portfolio of 33 euro area banks in the EURO STOXX index. For further details, see Box 5 in *Financial Stability Review*, ECB, May 2015.

Apart from the flat yield curve environment, banks also face legacy problems from the sovereign debt crisis, mainly in the form of a large stock of non-performing loans in several countries. A high level of non-performing loans in countries strongly affected by the euro area strains (such as Cyprus, Greece, Ireland, Italy, Portugal, Slovenia and Spain) has dampened profitability prospects. Such a constellation could hinder banks' ability to provide new credit to the real economy. Furthermore, banks with high levels of non-performing loans and moderate coverage ratios are more vulnerable to negative shocks affecting the credit quality of borrowers (see **Chart 7**). In addition, euro area banks' cost of equity still exceeds their return on equity. This negative gap is not sustainable in the long run since it implies that equity investors in banks require a higher return than the return banks are able to deliver. Over time, this will make it difficult for banks to attract capital and finance growth. In recent quarters, the gap has narrowed somewhat owing to the marginal improvement in banks' earnings and the favourable equity market conditions in the first half of the year (see **Chart 8**).

Similarly to banks, the profitability prospects for the insurance sector also remain a risk to financial stability. Although current profitability and capital positions remain solid, the low-return environment coupled with the forthcoming Solvency II regime will induce changes in some insurers' business models. Some insurers are taking on more risks so as to maintain returns. In particular, there is evidence of portfolio shifts towards infrastructure financing, equities and lower-quality bonds. On the liabilities side, life insurers are looking towards unit-linked policies and fee-based products for new business.

Several triggers could lead to sharp downward adjustments to banks' already-weak profitability. For instance, negative revisions to the economic growth path could weigh on borrowers' debt servicing ability, especially in countries currently experiencing benign market sentiment. In addition, further deterioration in some vulnerable emerging market economies also has the potential to weaken euro area banks' profitability – probably mainly via confidence channels.

From a policy perspective, some progress has been made recently in improving the legal framework, which should facilitate more effective resolution of non-performing loans. This could also contribute to better loss recognition by banks, as well as faster foreclosure of collateral underlying impaired loan portfolios. Banks should use the current environment to clean up their balance sheets so that the constraints on the supply of new credit are reduced. The efforts to resolve the stocks of non-performing loans in parts of the euro area should be carefully designed so as to avoid an undue negative impact on bank capitalisation and to minimise moral hazard.

Risk 3: Rising debt sustainability concerns in the public and non-financial private sectors amid low nominal growth

Debt sustainability concerns in the euro area public and non-financial private sectors remain, given still elevated debt levels and insufficient progress made in terms of deleveraging in several countries. Debt sustainability challenges are most relevant in the sovereign sector in the aftermath of the global financial crisis, but a debt overhang is also prevalent in the private sector. Corporate sector debt remains particularly elevated in the euro area compared with other advanced economies. While household indebtedness remains contained on aggregate in the euro area, in some countries additional vulnerabilities stem from high indebtedness in this sector too – thereby serving as a brake on economic growth.

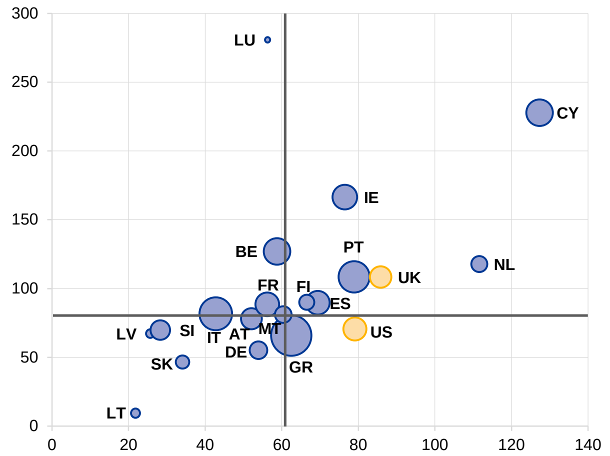
Debt sustainability indicators for the sovereign sector paint a mixed picture. On the positive side, indicators of sovereign stress have remained relatively contained despite renewed sovereign tensions in Greece. The turmoil in China mainly affected equity markets in the euro area, while sovereign bond markets were hardly affected, partly as a result of the ECB's asset purchase programme. Headline fiscal imbalances are expected to improve in almost all euro area countries over the next years, with a temporary deterioration expected to materialise only in Greece. The public sector has gradually increased the average debt maturity and a large amount of short-term liquid assets are available to cushion possible sudden increases in sovereign financing needs. On the negative side, challenges in safeguarding public debt sustainability across the euro area relate to complacency concerning fiscal adjustment and structural reforms, as well as a prolonged period of low nominal growth. In the long run, these challenges are accentuated by vulnerabilities related to slower than expected potential GDP growth and population ageing-related costs. Lastly, failure to meaningfully tackle the growth challenge, with the related consequences in terms of social inclusion, could create political and economic policy uncertainty. Such a situation may contribute to a deterioration in investor sentiment, pushing financing costs higher – and possibly resulting in renewed debt sustainability concerns.

Chart 9

High indebtedness across sectors in some economies remains a cause for concern

Non-financial corporate indebtedness (y-axis) and household indebtedness (x-axis)

(Q2 2015; percentage of GDP)



Sources: European Commission and ECB.
Notes: The size of the bubble reflects the indebtedness of the general government. Data on non-financial corporations are consolidated. The horizontal and vertical lines represent the euro area averages.

Debt sustainability concerns also prevail in the non-financial private sector. The aggregated euro area picture conceals strong differences among countries (see **Chart 9**). The non-financial corporate debt-to-GDP ratio remains high in a number of euro area countries, by both historical and international standards. In addition, there are a number of countries which have high indebtedness across all main economic sectors – households, corporates and the sovereign. There are risks that an intensification of vulnerabilities in one sector could spill over to other sectors, with negative repercussions for the banking system.

There are several triggers which could cause debt sustainability concerns to materialise. This could happen via deteriorating global and euro area economic growth prospects, mainly driven by the possibility of renewed bouts of volatility in major emerging markets. Further delays in key fiscal and structural reforms may lead to a reassessment of the sentiment towards vulnerable sovereigns which, in turn, could also create debt sustainability challenges for non-financial firms.

Going forward, challenges to debt sustainability would in many ways be best addressed by sound macroeconomic policies.

Risk 4: Prospective stress in a rapidly growing shadow banking sector, amplified by spillovers and liquidity risk

The shadow banking sector continues to grow at a rapid pace. At the same time it is becoming more central in the financial system, amid limited standardised data collection for adequate monitoring and oversight. All these factors – size, interconnectedness and opacity – suggest that the potential for systemic impacts emanating from this sector is increasing. The bulk of the increase in total assets in the shadow banking sector stems from the investment fund sector. From a financial stability perspective, concerns about the risks posed by investment funds relate to the implications for the wider financial system and the real economy arising from the sector's increasing role in credit intermediation and capital markets.

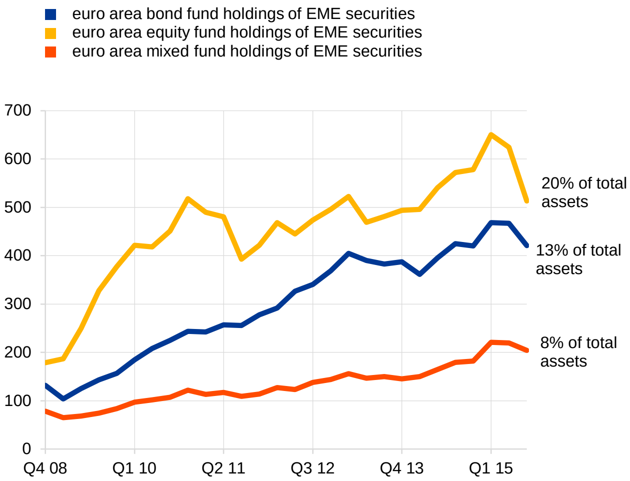
Available data gathered from various sources suggest that risk-taking activities undertaken by the euro area investment fund sector have increased over the past year. The funds have shifted their asset allocation from higher to lower-rated debt securities, while the average residual maturities have increased by almost one year (see **Box 7**). In terms of country allocation, euro area investment funds have continued to increase their exposure to emerging markets over the few past years, although a decline in valuations and some outflows led to a reduction in exposures in the recent past (see **Chart 10**). It is crucial that investors in those funds are aware of the risks they take and have sufficient buffers to withstand any strong reversal of global risk premia.

Chart 10

Euro area investment funds have gradually increased their exposure to emerging markets…

Euro area bond and equity funds' exposure to emerging markets

(Q4 2008 – Q3 2015; EUR billions)



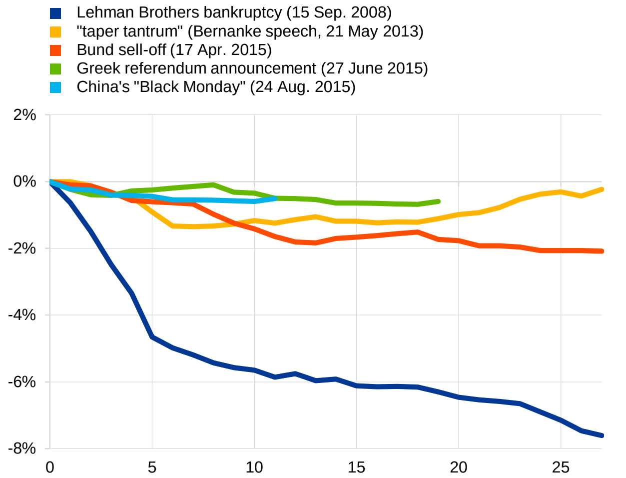
Source: ECB and ECB calculations.
Note: EME debt securities and shares are proxied by debt securities and shares issued in countries outside the European Union, the United States and Japan.

Chart 11

… and the recent turmoil did not push investors to significantly revise their asset allocations

Cumulative investment fund outflows of euro area assets following sharp changes in investor sentiment

(in weeks; percentages of investment funds' assets)



Sources: EPFR country flow data and ECB calculations.
Note: The cumulative outflows are for retail investors who are usually more active in their asset allocation decisions.

With regard to investment funds, "liquidity spirals" remain a risk. Such spirals, not dissimilar to those witnessed in the US in the global financial crisis of 2008, could be triggered if funds were to be confronted with high redemptions or increased margin requirements, as these could result in forced selling on markets with low liquidity. With such liquidity conditions, initial asset price adjustments would be amplified, triggering further redemptions and margin calls, thereby fuelling such negative liquidity spirals. Mitigating factors in the form of liquidity buffers and low leverage would dampen such effects.

Until now, various episodes of bond market volatility have been temporary. The sell-off in the German Bund market earlier this year did not lead to immediate stability concerns. Looking at more recent events, neither the difficulties surrounding the negotiations in Greece nor the turmoil in global stock markets in August led to significant outflows from euro area investment funds on the whole (see **Chart 11**).

The continued growth of the investment fund sector nonetheless raises concerns that investors in those funds could be part of any prospective global repricing. Growing exposures both in nominal and value terms, in addition to signs of increased risk-taking, underline the need for close monitoring.

On the policy side, more information and enhanced disclosure are clearly needed as a starting point in tackling this growing source of risk. While individual firms report selected liquidity and leverage metrics for their own risk management, the crisis of the last years has vividly illustrated that risks for financial stability are not additive. Indeed, the paucity of information on measures of liquidity in stressed circumstances and of leverage (both traditional and synthetic) at the aggregate level outside traditional banking remains a key issue in fully understanding the nature and extent of such a risk.

Policy considerations

For what concerns macroprudential matters, since November last year, the ECB has had prudential responsibilities for the SSM area – shared with national authorities. In this vein, measures announced by euro area countries since the last FSR have mostly focused on mitigating country-specific structural systemic risks, i.e. risks originating from significant size, high concentration and interconnectedness in the banking sector. Buffers for systemically important institutions and the systemic risk buffer have been applied or recommended for this purpose (e.g. in Austria, Belgium, Finland, Germany and Slovakia). Some euro area countries (including Finland, Latvia, Lithuania and Slovakia) have already started taking regular quarterly decisions on counter-cyclical capital buffer rates. However, reflecting the subdued credit growth, no additional counter-cyclical capital requirements have been set as yet in this regard. A few countries have also taken or issued more forward-looking measures or recommendations regarding potential risks and the availability of instruments related to borrowers and real estate markets (e.g. Germany, Lithuania and the Netherlands).

Beyond this newly acquired macroprudential mandate, work continues to complete the regulatory foundations serving to increase the resilience of not only individual institutions but also the financial system as a whole. Most importantly, the substantial capital increase above pre-crisis levels, primarily triggered by the introduction of the CRR/CRD IV package and various supervisory actions (e.g. stress tests, Pillar 2 measures) and market pressure, should contribute to a healthy and resilient banking system. This, in turn, should help the financial sector facilitate economic growth over the whole financial cycle.

Beyond capital requirements, ongoing initiatives are helping to complete a comprehensive regulatory overhaul of the banking sector globally and in the EU in the wake of the global financial crisis. Most importantly, on 9 November the Financial Stability Board issued the total loss-absorbing capacity standard for global systemically important banks which will increase the resolvability of such institutions without recourse to public funds and the associated moral hazard. Further key elements of the ongoing regulatory initiatives that will be finalised in the short term include rules on liquidity (e.g. on the net stable funding ratio), the leverage ratio and securitisation. Finally, work at the international and European levels is proceeding on reducing excessive variability in banks' regulatory capital ratios arising from the use of internal models and on revising the regulatory treatment of sovereign exposures. These measures, along with complementary parallel regulatory initiatives for non-bank financial entities, should help bolster the resilience of the broader euro area financial system and benefit financial stability in the medium term.